

Black-bellied Whistling-Duck

Bird Characteristics

Scientific Name: *Dendrocygna autumnalis*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 18.5-20.1 in (47-51 cm)

Weight: 23.0-36.0 oz (652-1020 g)

Basic Description: The Black-bellied Whistling-Duck is a boisterous duck with a brilliant pink bill and an unusual, long-legged silhouette. In places like Texas and Louisiana, watch for noisy flocks of these gaudy ducks dropping into fields to forage on seeds, or loafing on golf course ponds. Listen for them, too—these ducks really do have a whistle for their call. Common south of the U.S., Black-bellied Whistling-Ducks occur in several southern states and are expanding northward.

Nesting Characteristics

Clutch Size: 9-18 eggs

Number of Broods: 1-2 broods

Egg Length: 1.8-2.4 in (4.5-6.2 cm)

Egg Width: 1.2-1.6 in (3-4.2 cm)

Incubation Period: 25-30 days

Nestling Period: 10-13 days

Egg Description: White

Condition at Hatching: Almost independent at hatching. Covered with black-and-yellow down, eyes open.

Nest Placement: Usually nests in tree hollows where a limb has broken or the trunk has rotted away. They also use nest boxes and sometimes nest on the ground. Both sexes help select the

nest site.

Nest Description: Whether nesting in natural cavities or nest boxes, Black-bellied Whistling-Ducks typically don't build a nest; they lay their eggs directly on whatever debris has collected there. Cavity openings range from 5–12 inches across. When nesting on the ground, they make a scrape or a shallow bowl of grasses, with thick vegetation overhead, such as willow, mesquite, or cactus.

Bird Information

Habitat: Black-bellied Whistling Ducks nest in thickets or stands of mesquite, hackberry, willow, live oak, and other trees. They forage in fields, lawns, and shallow, freshwater ponds that often contain water hyacinth, water lilies, and cattails. In the tropics, they also use mangroves, rivers, and lagoons.

Food: Black-bellied Whistling-Ducks eat mainly plants, including smartweed, grasses, swamp timothy, amaranth, sedges, bindweed, and nightshade. They also eat many agricultural crops including sorghum, millet, corn, rice, and wheat. They eat a smaller amount of aquatic animals such as snails, insects, and spiders. They typically forage at night, leaving roosts at sunset to fly to foraging areas. They feed in fields or by dabbling in shallow ponds.

Behavior: Black-bellied Whistling-Ducks have long legs and spend more time than other ducks walking on land or perching in trees. You may see them perched on fences, telephone lines, or in Spanish moss. They are gregarious year-round, forming flocks of up to 1,000 birds. They form lifelong pair bonds and breed in their first year of life. Males spar by chasing or nipping at each other, or with a threat display that involves stretching their neck forward and opening their bill. Pairs form in winter; courtship includes birds stretching their necks out horizontally, dipping their bill, and flicking water over the back. Females often lay eggs in the nests of other whistling-ducks—a behavior known as egg-dumping. Individuals are attracted to areas where corn and rice are grown and can cause damage to crops. Nest predators include raccoons, rat snakes, and bull snakes; ducklings may be killed by fire ants, bass, catfish, and gar. Great Horned Owls sometimes take adults.

Conservation: Black-bellied Whistling-Ducks have been expanding their range in the southern U.S., and the North American Breeding Bird Survey shows strong population growth, estimated at over 6% per year from 1966–2014. They are not on the

Color Pattern: Black-bellied Whistling-Ducks are dark overall: a chestnut breast and black belly are set off by a bright-pink bill and legs, grayish face, and broad white wing stripe, also visible in flight. Immatures are duller than adults, with a dark bill, pale breast, and mottled black belly.

Fun Facts

-> The whistling-ducks were formerly known as tree-ducks, but only a few, such as the Black-bellied Whistling-Duck actually perch or nest in trees. They look most like ducks, but their lack of sexual dimorphism, relatively long-term pair bonds, and lack of complex pair-forming behavior more resembles geese and swans.

-> The oldest recorded Black-bellied Whistling Duck was a male, and at least 10 years, 7 months when it was found in Louisiana.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (fulgens)

Long-necked duck with a red bill and long pink legs. Its body is mostly chestnut, with a black belly and a gray face. The white patch in the wings appears as a stripe down its wing while at rest.



Adult (fulgens)

In flight shows a large white patch on the upperwings. Flies with large pink feet projecting beyond the tail tip and head and neck head slightly down, imparting a kinked appearance.



Adult and juvenile (fulgens)

Juveniles are browner than adults and lack the black belly. Note also the black bill and flesh colored legs shown by juveniles.



Adult (*autumnalis*)
South American adults (subspecies)



Juvenile (*autumnalis*)
The long, slender neck, plank-like wings, and long legs projecting beyond the tail make this recognizable as a whistling-duck. Juveniles show a pale brown belly, gray bill, and pale pink legs and feet.



Adult (*autumnalis*)
The stout bill and slim neck help create the whistling-duck "look." The pink-orange bill, white eyering, and large black belly patch that extends up the

flanks combine to rule out other similar species.



Adult and chick

Very young chicks show a highly distinctive black-and-yellow bumblebee pattern with highly contrasting head stripes.



Adult (fulgens)

Nests in large holes or hollows in trees as well as nest boxes. Often perches in trees or on rooftops, sometimes well away from water.



Adult (fulgens)

These gregarious waterfowl occur in flocks year-round. Frequently seen perching on fence posts or wires, especially near agricultural fields.

Snow Goose

Bird Characteristics

Scientific Name: *Anser caerulescens*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 27.2-32.7 in (69-83 cm)

Weight: 56.4-116.4 oz (1600-3300 g)

Wingspan: 54.3 in (138 cm)

Basic Description: Watching huge flocks of Snow Geese swirl down from the sky, amid a cacophony of honking, is a little like standing inside a snow globe. These loud, white-and-black geese can cover the ground in a snowy blanket as they eat their way across fallow cornfields or wetlands. Among them, you might see a dark form with a white head—a color variant called the “Blue Goose.” Snow Geese have skyrocketed in numbers and are now among the most abundant waterfowl on the continent.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1 brood

Egg Length: 3.1-3.3 in (7.9-8.3 cm)

Egg Width: 2.0-2.2 in (5.1-5.5 cm)

Incubation Period: 24 days

Nestling Period: 1 day

Egg Description: Elongated oval with variable texture. Creamy white but easily staining to dirty gray.

Condition at Hatching: Eyes open and body fully covered with down.

Nest Placement: Accompanied by the male, the female chooses a nest site, typically sheltered

among vegetation like sea-lyme grass or willows, along with rocks or small shrubs. They build nests on dry ground when possible—although, being close to melted snow, the site is often moist. They use island sites or areas near to small ponds when those are available. The female sometimes starts several scrapes before choosing the final location. She may lay the first egg within an hour of selecting the site.

Nest Description: The female builds the nest by herself, working at any time of day. She starts with a simple scrape in the earth, but as she lays more eggs she adds fluffy down feathers plucked from her own breast (sometimes in very large amounts) and may add material like sea-lyme grass, eelgrass, leaves and twigs of willow and birch, or seaweed. The less protected the site, the heftier the nest: they range from 3 to 6.5 feet across.

Bird Information

Habitat: Snow Geese breed in colonies on Canadian and Northern Alaskan tundra in the vicinity of the coast, from the high arctic to the subarctic. They choose areas near ponds, shallow lakes, coastal salt marshes, or streams (including river islands), preferring rolling terrain that loses its snow early and escapes flooding during spring thaw. Snow Geese form three separate regional populations—eastern, central, and western—distinctions that are more or less preserved as the geese migrate to their wintering grounds. After chicks hatch, families move to brood-rearing territories with a lot of grasses and bryophytes, including tidal marshes and wet areas near ponds. During spring and fall migration along all four major North American flyways, geese frequently stop in open areas like lakes, farm fields, protected freshwater and brackish marshes, sluggish rivers, and sandbars. They winter in regions on both American coasts as well as in some inland areas, frequenting open habitats like marshes, grasslands, marine inlets, freshwater ponds, and agricultural fields.

Food: Snow Geese are vegetarians with voracious appetites for grasses, sedges, rushes, forbs, horsetails, shrubs, and willows. They will consume nearly any part of a plant—including seeds, stems, leaves, tubers, and roots—either by grazing, shearing plants off at ground level, or ripping entire stems from the ground. In winter and during migration they also eat grains and young stems of farm crops, along with a variety of berries. Goslings may eat fruits, flowers, horsetail shoots, and fly larvae.

Behavior: Snow Geese are strong fliers, walkers, and swimmers (even capable of diving short distances when threatened). Their main activities are feeding and resting: they forage on foot and sleep while sitting, standing on one leg, or swimming. During migration and winter, they roost mainly at night and afloat. Snow Geese stay with the same mate for life, choosing an individual of the same color morph (white or “blue”) as the family members they grew up with. The female incubates the eggs and nestlings, spending 21 or more hours per day on the nest, while the male stands guard to defend females and nest sites against predators and other Snow Geese. The male may leave the female to defend the nest herself for extended periods. During the breeding season, eggs and nestlings are at risk from arctic and red foxes, Glaucous Gulls, Herring Gulls, Parasitic Jaegers, caribou, polar and black bears, gray wolves, Common Ravens, Long-tailed Jaegers, and Snowy Owls. Adults may be hunted by foxes,

wolves, bears, Bald Eagles, or Golden Eagles, more so during nesting season than during migration and winter.

Conservation: Snow Goose numbers have grown rapidly since the mid-twentieth century, possibly because of warming conditions in their arctic breeding grounds. Populations in the eastern and western arctic have tripled since 1973, and the central arctic population has grown by a factor of 25. These birds can be found breeding in the far north of Canada and winter principally in the U.S. and Mexico. Snow Geese are federally protected migratory game birds, and their hunting is managed on a population-by-population basis. The species is not on the

Color Pattern: The Snow Goose is a white-bodied goose with black wingtips that are barely visible on the ground but noticeable in flight. The pink bill has a dark line along it, often called a "grinning patch" or "black lips." You may also see dark morph Snow Geese, or "Blue Geese," with a white face, dark brown body, and white under the tail.

Fun Facts

-> The dark color of the blue morph Snow Goose is controlled by a single gene, with dark being partially dominant over white. If a pure dark goose mates with a white goose, the offspring will all be dark (possibly with white bellies). If two white geese mate, they have only white offspring. If two dark geese mate, they will have mostly dark offspring, but might have a few white ones too.

-> Snow Geese chicks are well developed when they hatch, with open eyes and down-covered bodies that already show whether the adult will have white or dark plumage. Within a few days they are able to maintain a constant body temperature on their own. They grow very quickly, with the males outpacing the females.

-> The creamy white eggs of Snow Geese stain easily. People can sometimes tell what order the eggs were laid in, just by the color of the shells (the dirtiest shells belong to the oldest eggs).

-> In wintering and migrating flocks that are feeding, lookouts keep an eye out for eagles and other predators. Upon sighting a threat they call out to the rest of the flock, which may take flight.

-> Snow Geese make epic journeys by air, but they are impressive on foot, too. Within the first three weeks of hatching, goslings may walk up to 50 miles with their parents from the nest to a more suitable brood-rearing area. Molting Snow Geese can outrun many predators.

-> Females forage up to 18 hours a day once they arrive at breeding grounds, but eat little once they begin incubating the eggs.

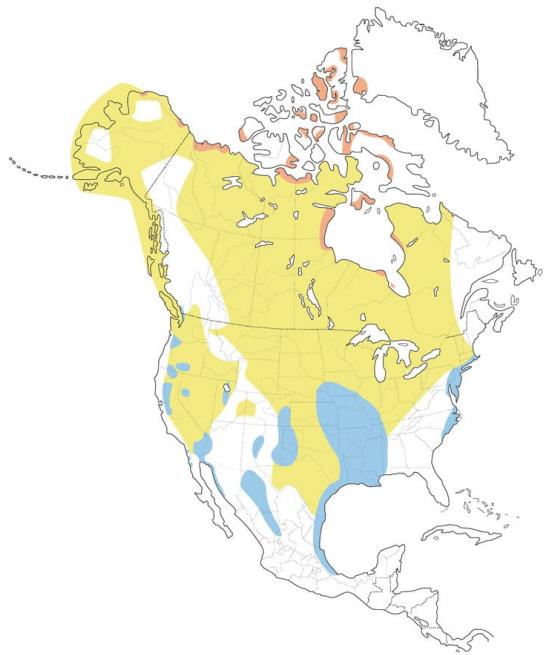
-> Food passes through the Snow Goose's digestive tract in only an hour or two, generating 6 to 15 droppings per hour. The defecation rate is highest when a goose is grubbing for rhizomes, because such food is very high in fiber and the goose inevitably swallows mud.

-> The oldest Snow Goose on record, shot in Texas in 1999, was 27 and a half.

-> Snow Goose hunting in the eastern United States was stopped in 1916 because of low population levels. Hunting was allowed again in 1975 after populations had recovered. Since

then, their populations have continued to grow, to the point that some areas of tundra nesting habitat are starting to suffer.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult white morph

All white plumage with black wingtips visible at rest. The pink bill shows a curved base and a prominent black grin patch.



Adult blue morph

Blue morph is the same shape and size as the white morph, with a variably dark body and a white head. Note the curved bill base and the black grin patch on the pink bill.



Adult intermediate morph

Dark-plumaged birds are quite variable and may show a white belly

contrasting with dark body plumage. The orange color on the head is from iron oxides that stain white plumage while foraging.



Adult white morph

In flight, all white with black primaries. Distinguishing Snow and Ross's geese in flight is difficult but can be attempted with direct comparisons or good views of the head and bill structure—longer in Snow, more compact in Ross's.



Juvenile white morph

White with dusky gray-brown on head, neck, and wings. Bill and legs are dusky pink. The large black grin patch on the bill is a useful character.



Juvenile blue morph

Entirely dark sooty gray at rest; long bill structure with an arched grin patch is identical to the pattern shown by paler Snow Geese.



Adult blue morph and adult white morph

White and blue morphs commonly flock together, but white almost always outnumber blue. Note the white armpits of the blue morph adult here—this contrast helps to distinguish this color variant from other species of dark geese which have dark underwings.



Adult blue morph (with Canada Goose)

Shorter-necked and more compact at rest than Canada Goose. This dark morph adult shows a mostly dark body with white head and a large pale upperwing patch.



Adult white morph and adult blue morph

Often forages in large flocks during migration and winter. White and blue morphs flock together and interbreed freely, though white morphs are more common.



Flock

Frequently occurs in shimmering flocks of hundreds of thousands during migration and winter.

Canada Goose

Bird Characteristics

Scientific Name: *Branta canadensis*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 29.9-43.3 in (76-110 cm)

Weight: 105.8-317.5 oz (3000-9000 g)

Wingspan: 50.0-66.9 in (127-170 cm)

Basic Description: The big, black-necked Canada Goose with its signature white chinstrap mark is a familiar and widespread bird of fields and parks. Thousands of “honkers” migrate north and south each year, filling the sky with long V-formations. But as lawns have proliferated, more and more of these grassland-adapted birds are staying put in urban and suburban areas year-round, where some people regard them as pests.

Nesting Characteristics

Clutch Size: 2-8 eggs

Number of Broods: 1 brood

Egg Length: 3.3 in (8.3 cm)

Egg Width: 2.2 in (5.6 cm)

Incubation Period: 25-28 days

Nestling Period: 42-50 days

Egg Description: Creamy white.

Condition at Hatching: Hatchlings are covered with yellowish down and their eyes are open. They leave the nest when 1-2 days old, depending on weather, and can walk, swim, feed, and even dive. They have enough energy remaining in their yolk sac to survive 2 days before feeding.

Nest Placement: On the ground, usually on a muskrat mound or other slightly elevated site, near water. They prefer a spot from which they can have a fairly unobstructed view in many directions. Female selects the site and does much of nest construction. She adds down feathers and some body feathers beginning after the second egg is laid. She does all the incubation while her mate guards her and the nest.

Nest Description: A large open cup on the ground, made of dry grasses, lichens, mosses, and other plant material, and lined with down and some body feathers.

Bird Information

Habitat: Canada Geese live in a great many habitats near water, grassy fields, and grain fields. Canada Geese are particularly drawn to lawns for two reasons: they can digest grass, and when they are feeding with their young, manicured lawns give them a wide, unobstructed view of any approaching predators. So they are especially abundant in parks, airports, golf courses, and other areas with expansive lawns.

Food: In spring and summer, geese concentrate their feeding on grasses and sedges, including skunk cabbage leaves and eelgrass. During fall and winter, they rely more on berries and seeds, including agricultural grains, and seem especially fond of blueberries. They're very efficient at removing kernels from dry corn cobs. Two subspecies have adapted to urban environments and graze on domesticated grasses year round.

Behavior: Canada Geese eat grain from fields, graze on grass, and dabble in shallow water by tipping forward and extending their necks underwater. During much of the year they associate in large flocks, and many of these birds may be related to one another. They mate for life with very low "divorce rates," and pairs remain together throughout the year. Geese mate "assortatively," larger birds choosing larger mates and smaller ones choosing smaller mates; in a given pair, the male is usually larger than the female. Most Canada Geese do not breed until their fourth year; less than 10 percent breed as yearlings, and most pair bonds are unstable until birds are at least two or three years old. Extra-pair copulations have been documented.

Conservation: Canada Geese are common and increased between 1966 and 2015, according to the North American Breeding Bird Survey. The total North American population in 2015 was between 4.2 million to over 5.6 million. The species rates a 6 out of 20 on the Continental Concern Score. It is not on the

Color Pattern: Canada Geese have a black head with white cheeks and chinstrap, black neck, tan breast, and brown back.

Fun Facts

-> At least 11 subspecies of Canada Goose have been recognized, although only a couple

are distinctive. In general, the geese get smaller as you move northward, and darker as you go westward. The four smallest forms are now considered a different species: the Cackling Goose.

-> Some migratory populations of the Canada Goose are not going as far south in the winter as they used to. This northward range shift has been attributed to changes in farm practices that makes waste grain more available in fall and winter, as well as changes in hunting pressure and changes in weather.

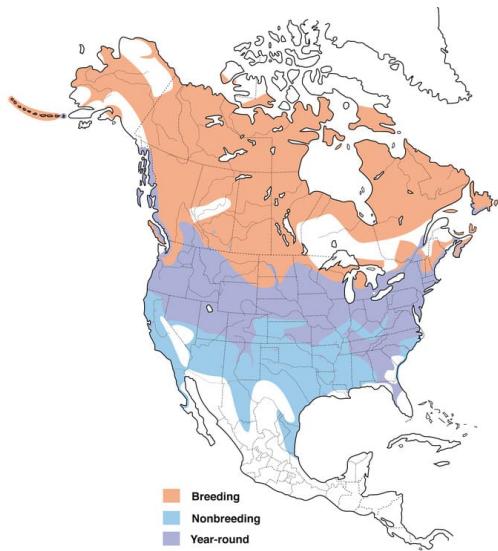
-> Individual Canada Geese from most populations make annual northward migrations after breeding. Nonbreeding geese, or those that lost nests early in the breeding season, may move anywhere from several kilometers to more than 1500 km northward. There they take advantage of vegetation in an earlier state of growth to fuel their molt. Even members of "resident" populations, which do not migrate southward in winter, will move north in late summer to molt.

-> The "giant" Canada Goose,

-> In a pattern biologists call "assortative mating," birds of both sexes tend to choose mates of a similar size.

-> The oldest known wild Canada Goose was a female, and at least 33 years, 3 months old when she was shot in Ontario in 2001. She had been banded in Ohio in 1969.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Large with a long black neck and white cheek patch. Body brown with paler chest and white undertail. Legs and feet black.



Adult (occidentalis/fulva)

Evenly dark brown body with limited contrast with the black neck.



Adult

When alert sits with neck stretched up straight.



Adult

In flight shows a prominent white "U" on the dark uppertail, contrasting with the black tail.



Juvenile

Chicks are fluffy and yellowish, with black legs and bill.



Adult

Often found near human habitation, and can be aggressive when threatened.



Adult

Sometimes nests on raised platforms or in trees.



Adult

Often found in large flocks on a variety of water bodies.

Trumpeter Swan

Bird Characteristics

Scientific Name: *Cygnus buccinator*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 54.3-62.2 in (138-158 cm)

Weight: 271.6-448.0 oz (7700-12700 g)

Wingspan: 79.9 in (203 cm)

Basic Description: Trumpeter Swans demand superlatives: they're our biggest native waterfowl, stretching to 6 feet in length and weighing more than 25 pounds - almost twice as massive as a Tundra Swan. Getting airborne requires a lumbering takeoff along a 100-yard runway. Despite their size, this once-endangered, now recovering species is as elegant as any swan, with a graceful neck and snowy-white plumage. They breed on wetlands in remote Alaska, Canada, and the northwestern U.S., and winter on ice-free coastal and inland waters.

Nesting Characteristics

Clutch Size: 4-6 eggs

Egg Length: 4.0-5.0 in (10.1-12.6 cm)

Egg Width: 2.4-3.2 in (6.2-8.1 cm)

Incubation Period: 32-37 days

Egg Description: Creamy to dull white, often stained brown in the nest.

Condition at Hatching: Eyes partially open, covered in mouse-gray or occasionally white down. Leaves nest within 24 hours of hatching and has the ability to swim and feed. Is able to fly at 90 - 122 days after hatching.

Nest Placement: Trumpeter Swans build their nests on a site surrounded by water and usually less than 600 feet from shore. The nest is usually built on an existing structure including muskrat and beaver dens, beaver dams, floating vegetation mats, small islands, or manmade platforms. Swan pairs often use the same nest site year after year.

Nest Description: Both sexes collect plant material to build the nest, which includes a foundation topped by a mound of aquatic vegetation, occasionally including grasses and sedges. The female uses her bill and body to shape a nest bowl atop the finished mound. The bowl's lining may include a few feathers. Nests take 14 - 35 days to build and the completed oblong or circular nest mound can reach up to 11 feet across and 3 feet high, with a bowl measuring 10 - 16 inches across and 4 - 8 inches deep.

Bird Information

Habitat: Breeding Trumpeter Swans seek relatively shallow (less than 6 feet deep), undisturbed bodies of freshwater with abundant aquatic plants. These heavy-bodied birds also need at least 100 yards of open water for their running take-offs, and muskrat or beaver dens or small islands on which to nest. Breeding sites include small ponds (including beaver and farm ponds), lakes, marshes, bogs, glacial potholes, and quiet stretches of river. As they prepare (or "stage") for migration, Trumpeter Swans gather at sites near open water, such as inlets with moving water, and larger, deeper lakes. Wintering birds seek out ice-free sites where vegetation is available, including freshwater streams, rivers, springs and reservoirs. In the Pacific Northwest, birds roost and feed in estuaries. In the Midwest, swans may winter on deep ponds of reclaimed surface mines. Wintering swans may forage in croplands and pasture.

Food: Trumpeter Swans are mainly vegetarians, although they occasionally eat small fish and fish eggs. Younger birds also eat aquatic insects before switching to a plant-dominated diet. Day and night, the birds feed on a broad range of aquatic plants, including pondweeds, eelgrass, maretail, sedges, rushes, duckweed, wild rice and algae. To feed underwater they tip in the air like dabbling ducks, rooting beneath the surface to twist and pull up vegetation or freeing roots by paddling their feet in the mud. In winter they eat a higher percentage of terrestrial plants and berries, such as blueberries, cranberries, lupine, wheatgrass, broom, and ryegrass. Grain crops, including corn and barley, and tubers such as potatoes and carrots also make up part of the wintertime diet.

Behavior: Trumpeter Swans fly with rapid, shallow wingbeats, often traveling in pairs or family groups and flying lower than other swan and duck species. To feed, Trumpeter Swans skim vegetation from the surface, dip their long necks underwater to forage, and tip like dabbling ducks with the rear half of their body in the air as they scour for algae, leaves, stems and roots of pondweeds and other plants. They also pump their large, webbed feet up and down to create water currents that free roots from surrounding mud. Sometimes ducks join feeding swans to glean vegetation and feed on insects they disturb. On land, Trumpeter Swans dig into the soil to find tubers, and nibble or scoop up grain from the ground. The swans spend significant time preening, rubbing their bills in the oil-secreting uropygial gland near the base of the tail, then distributing the oil over the feathers to waterproof them. Swans form long-lasting pairs and may identify a nesting site when less than 2 years old, but often wait several more years to breed. Pairs stay together throughout the year and often migrate and winter in family groups and with other waterfowl, including Tundra Swans, Canada Geese, and Northern Pintails.

Conservation: Despite being driven nearly to extinction in the early 20th century, Trumpeter Swans have rebounded and their numbers are increasing. Widespread hunting for meat, skins and feathers from the 1600s - 1800s had reduced this once widespread species to 69 known individuals by 1935, although isolated pockets of the birds also survived in Canada and Alaska. Hunting them is now illegal throughout the U.S. Between 2000 and 2005 a continentwide survey found that Trumpeter Swan numbers had more than tripled, from 11,156 to 34,803. Although Trumpeter Swans have been dubbed "a classic conservation success" and numbers continue to increase, threats such as lead poisoning, habitat loss, power lines, and occasional shooting continue to affect the population. The swans are also extremely sensitive to human disturbance at their breeding sites and will abandon nests and cygnets if disturbed. Ongoing conservation efforts include a set of federal management plans for the three major populations: the Interior, Rocky Mountain, and Pacific Coast birds, along with several state plans. Managers are working to improve breeding and wintering habitat, limit human disturbance, and decrease lead pollution.

Color Pattern: Adult Trumpeter Swans are entirely white with a black bill and black legs. Immatures are gray-brown.

Fun Facts

-> Trumpeter Swans are impressively large—males average over 26 pounds, making them North America's heaviest flying bird. To get that much mass aloft the swans need at least a 100 meter-long "runway" of open water: running hard across the surface, they almost sound like galloping horses as they generate speed for take off.

-> Starting in the 1600s, market hunters and feather collectors had decimated Trumpeter Swans populations by the late 1800s. Swan feathers adorned fashionable hats, women used swan skins as powder puffs, and the birds' long flight feathers were coveted for writing quills. Aggressive conservation helped the species recover by the early 2000s.

-> Overhunting of muskrats and beavers may have harmed Trumpeter Swans, too: the swans nest on their dens and dams. As the rodents' populations recovered, breeding habitat for the swans also improved.

-> Trumpeter Swans form pair bonds when they are three or four years old. The pair stays together throughout the year, moving together in migratory populations. Trumpeters are assumed to mate for life, but some individuals do switch mates over their lifetimes. Some males that lost their mates did not mate again.

-> Trumpeter Swans take an unusual approach to incubation: they warm the eggs by covering them with their webbed feet.

-> The Trumpeter Swan's scientific name,

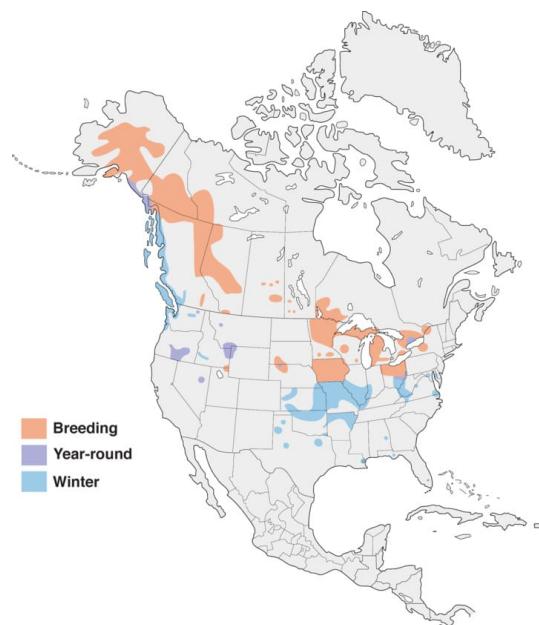
-> A "voiceless" Trumpeter Swan named Louis was the main character in E. B. White's 1970 children's book,

-> Although awkward on the ground due to short legs set behind their center of gravity, they can walk more than a mile at a time, even when traveling with cygnets less than a week old.

-> The oldest known Trumpeter Swan was a female, and at least 26 years, 2 months old when

she was identified by her bank in the wild, in Wisconsin. One captive individual lived to be 32.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Very large and entirely white with a long neck, black bill with broad area of black facial skin in front of the eye, and black legs.



Juvenile

Older juveniles are mostly pale dusky-gray with white highlights, and a pink center to the black bill.



Adult

Flies with neck outstretched. Entirely white with black legs and bill.



Adult

Entirely black bill with broad connection of black facial skin to the eye. The white head can be stained rusty, especially during the nesting season.



Juvenile

Needs a broad expanse of water to takeoff. Juveniles dusky-brown, including on wings, with white highlights.



Adult

Often feeds in wet grassy areas, sometimes far from open water.



Adult

Occurs on a variety of waterbodies, from small ponds to large reservoirs.

Wood Duck

Bird Characteristics

Scientific Name: *Aix sponsa*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 18.5-21.3 in (47-54 cm)

Weight: 16.0-30.4 oz (454-862 g)

Wingspan: 26.0-28.7 in (66-73 cm)

Basic Description: The Wood Duck is one of the most stunningly pretty of all waterfowl. Males are iridescent chestnut and green, with ornate patterns on nearly every feather; the elegant females have a distinctive profile and delicate white pattern around the eye. These birds live in wooded swamps, where they nest in holes in trees or in nest boxes put up around lake margins. They are one of the few duck species equipped with strong claws that can grip bark and perch on branches.

Nesting Characteristics

Clutch Size: 6-16 eggs

Number of Broods: 1-2 broods

Egg Length: 1.8-2.4 in (4.6-6.1 cm)

Egg Width: 1.4-1.6 in (3.5-4.2 cm)

Incubation Period: 28-37 days

Nestling Period: 56-70 days

Egg Description: Glossy creamy white to tan.

Condition at Hatching: Chicks hatch alert and with a full coat of down. A day after hatching they leave the nest by jumping out of the entrance.

Nest Placement: Breeding pairs search for nest cavities during early morning. The male stands

outside as the female enters and examines the site. They typically choose a tree more than 1 foot and often 2 feet in diameter, with a cavity anywhere from 2–60 feet high (higher sites seem to be preferred). These cavities are typically places where a branch has broken off and the tree's heartwood has subsequently rotted. Woodpecker cavities are used less frequently. Wood Ducks cannot make their own cavities. The nest tree is normally situated near to or over water, though Wood Ducks will use cavities up to 1.2 miles from water.

Nest Description: Nest cavities can have openings as small as 4 inches across, and these may be preferred because they are harder for predators to enter. Wood Ducks sometimes use much larger openings, up to a couple of feet across. Cavity depths are variable; they average about 2 feet deep but in rotten trees can be 15 feet deep (the young use their clawed feet to climb out). Nest boxes of many designs have proved very popular and successful with Wood Ducks, though plastic nest boxes can overheat in strong sun. The female lines the nest with down feathers she takes from her breast.

Bird Information

Habitat: Wood Ducks thrive in bottomland forests, swamps, freshwater marshes, and beaver ponds. They are also common along streams of all sizes, from creeks to rivers, and the sheer extent of these make them an important habitat. Wood Ducks seem to fare best when open water alternates with 50–75% vegetative cover that the ducks can hide and forage in. This cover can consist of downed trees, shrubs such as alder, willow, and buttonbush, as well as emergent herbaceous plants such as arrowhead and smartweeds.

Food: Wood Ducks eat seeds, fruits, insects and other arthropods. When aquatic foods are unavailable they may take to dry land to eat acorns and other nuts from forests and grain from fields. Diet studies indicate a lot of variability, but plant materials make up 80% or more of what the species eats. Examples of food eaten include acorns, soybeans, smartweed, water primrose, panic grass, duckweed, millet, waterlily, blackberries and wild cherries, as well as flies, beetles, caterpillars, isopods, and snails.

Behavior: Wood Ducks feed by dabbling or short, shallow dives. They are strong fliers and can reach speeds of 30 mph. Wood Ducks are not territorial, with the exception that a male may fight off other males that approach his mate too closely. Courting males swim before a female with wings and tail elevated, sometimes tilting the head backwards for a few seconds. Males may also perform ritualized drinking, preening, and shaking movements. Both members of a pair may preen each other. Egg-dumping, or "intraspecific brood parasitism" is common in Wood Ducks—females visit other Wood Duck cavities, lay eggs in them, and leave them to be raised by the other female. This may have been made more common by the abundance and conspicuousness of artificial nest boxes; in some areas it happens in more than half of all nests. Individual females typically lay 10-11 eggs per clutch, but some very full nests have been found containing 29 eggs, the result of egg-dumping.

Conservation: Wood Duck populations increased between 1966 and 2015 according to the North American Breeding Bird Survey. This is good news considering their dramatic declines

in the late 19th century. Wood Ducks can be found throughout the year in the U.S., with some individuals breeding in Canada, and some wintering in Mexico. Wood Duck rates an 8 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: In good light, males have a glossy green head cut with white stripes, a chestnut breast and buffy sides. In low or harsh light, they'll look dark overall with paler sides. Females are gray-brown with white-speckled breast. In eclipse plumage (late summer), males lose their pale sides and bold stripes, but retain their bright eye and bill. Juveniles are very similar to females.

Fun Facts

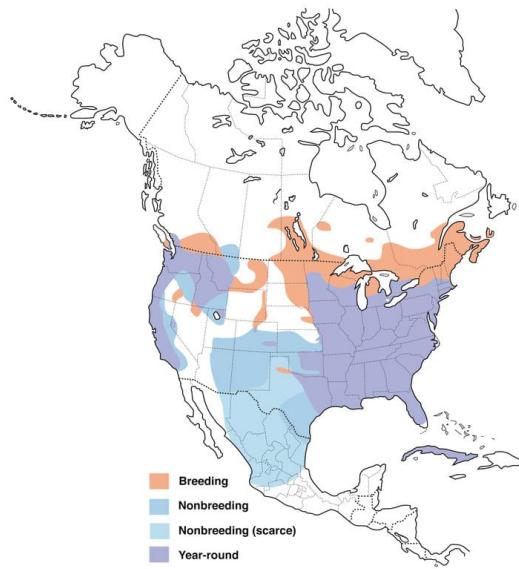
-> Natural cavities for nesting are scarce, and the Wood Duck readily uses nest boxes provided for it. If nest boxes are placed too close together, many females lay eggs in the nests of other females.

-> Wood Ducks pair up in January, and most birds arriving at the breeding grounds in the spring are already paired. The Wood Duck is the only North American duck that regularly produces two broods in one year.

-> The Wood Duck nests in trees near water, sometimes directly over water, but other times over a mile away. After hatching, the ducklings jump down from the nest tree and make their way to water. The mother calls them to her, but does not help them in any way. The ducklings may jump from heights of over 50 feet without injury.

-> The oldest recorded Wood Duck was a male and at least 22 years, 6 months old. He had been banded in Oregon and was found in California.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male

Gorgeous duck with intricate plumage: green, crested head, chestnut breast and other bold markings.



Female

Warm brown plumage with grayer, slightly crested head. White teardrop around the eye; white also along the edge of dark blue "speculum" patch in the wings.



Eclipse male

Grayish brown plumage with whiter throat, bright red eye, and red and

white bill.



Female

In flight the blue secondaries with a bold white stripe on the trailing edge are obvious.



Male and female

Gray underwings of breeding males contrast with the rest of the plumage.



Immature

None



Male

Glossy green head with prominent crest at the rear, white throat, bright red eye, and red-and-white bill.



Female and chick

Fluffy young are dark above with pale yellowish underparts and face.



Male and female

Nests in cavities, including artificial nest boxes.



Female

Often perches on branches, sometimes far from water.

Mallard

Bird Characteristics

Scientific Name: *Anas platyrhynchos*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 19.7-25.6 in (50-65 cm)

Weight: 35.3-45.9 oz (1000-1300 g)

Wingspan: 32.3-37.4 in (82-95 cm)

Basic Description: If someone at a park is feeding bread to ducks, chances are there are Mallards in the fray. Perhaps the most familiar of all ducks, Mallards occur throughout North America and Eurasia in ponds and parks as well as wilder wetlands and estuaries. The male's gleaming green head, gray flanks, and black tail-curl arguably make it the most easily identified duck. Mallards have long been hunted for the table, and almost all domestic ducks come from this species.

Nesting Characteristics

Clutch Size: 1-13 eggs

Number of Broods: 1-2 broods

Egg Length: 2.1-2.5 in (5.3-6.4 cm)

Egg Width: 1.5-1.8 in (3.9-4.5 cm)

Incubation Period: 23-30 days

Egg Description: Unmarked creamy to grayish or greenish buff.

Condition at Hatching: Newly hatched birds are covered in down and alert; they are ready to leave the nest within 13–16 hours.

Nest Placement: Mallards nest on the ground on dry land that is close to water; nests are generally concealed under overhanging grass or other vegetation. Occasionally, Mallards nest in agricultural fields, especially alfalfa but also winter wheat, barley, flax, and oats. Both urban

and wild populations readily nest in artificial nesting structures. Pairs search for nest sites together, typically on evening flights circling low over the habitat. Occasionally nests are placed on floating mats of vegetation or woven into plant stems that rise out of the water.

Nest Description: The female forms a shallow depression or bowl on the ground in moist earth. She does not carry material to the nest but rather pulls vegetation she can reach toward her while sitting on nest. During egg-laying phase, she lines the nest with grasses, leaves, and twigs from nearby. She also pulls tall vegetation over to conceal herself and her nest. After incubation begins, she plucks down feathers from her breast to line the nest and cover her eggs. The finished nest is about a foot across, with a bowl for the eggs that is 1–6 inches deep and 6–9 inches across.

Bird Information

Habitat: Mallards can be found in almost any wetland habitats, including permanent wetlands such as marshes, bogs, riverine floodplains, beaver ponds, lakes, reservoirs, ponds, city parks, farms, and estuaries. They also occur in prairie potholes and ephemeral wetlands; they may be found feeding along roadside ditches, pastures, croplands and rice fields.

Food: Mallards are generalist foragers and will eat a wide variety of food. They don't dive, but dabble to feed, tipping forward in the water to eat seeds and aquatic vegetation. They also roam around on the shore and pick at vegetation and prey on the ground. During the breeding season, they eat mainly animal matter including aquatic insect larvae, earthworms, snails and freshwater shrimp. During migration, many Mallards consume largely agricultural seed and grain. In city parks, they readily accept handouts from parkgoers.

Behavior: Mallards are an abundant city and suburban park duck and because of constant feedings by park visitors, they can become very tame and approachable. In more natural settings and where Mallards are heavily hunted, they can be very wary of approaching people. They commonly associate with and may hybridize with other dabbling ducks. Mallards have a huge variety of displays that can be fascinating to watch and decipher. Most displays are ritualized versions of common motions: males may face off with a head-bob, threaten an aggressor with an open bill, or push against each other, breast to breast. Paired males defend their territories with vigorous acrobatic chases. Males court females by shaking or flicking the head side to side, looking over their shoulder, or raising up in the water and flapping their wings. Several males often gather around a female to display. A female encourages a male by nodding her head back and forth or paddling with her head held low.

Conservation: Mallards are the most widespread and abundant duck in North America and their populations have been slightly increasing from 1966 to 2014, according to the North American Breeding Bird Survey. Their numbers increase during wet periods and decline when there are droughts in the middle of the continent—over the last 50 years their estimated numbers have cycled between about 5 million and 11 million. The U.S. Fish and Wildlife Service estimates the 2014 North American population at around 11.6 million breeding birds. The species is not on the

Color Pattern: Male Mallards have a dark, iridescent-green head and bright yellow bill. The gray body is sandwiched between a brown breast and black rear. Females and juveniles are mottled brown with orange-and-brown bills. Both sexes have a white-bordered, blue "speculum" patch in the wing.

Fun Facts

-> The Mallard is the ancestor of nearly all domestic duck breeds (everything except the Muscovy Duck). Domestic ducks can be common in city ponds and can be confusing to identify —they may lack the white neck ring, show white on the chest, be all dark, or show oddly shaped crests on the head.

-> The widespread Mallard has given rise to a number of populations around the world that have changed enough that they could be considered separate species. The "Mexican Duck" of central Mexico and the extreme southwestern United States and the Hawaiian Duck both are closely related to the Mallard, and in both forms the male is dull like the female. The Mexican Duck currently is considered a subspecies of the Mallard, while the Hawaiian Duck is still given full species status.

-> Mallard pairs are generally monogamous, but paired males pursue females other than their mates. So-called "extra-pair copulations" are common among birds and in many species are consensual, but male Mallards often force these copulations, with several males chasing a single female and then mating with her.

-> Mallard pairs form long before the spring breeding season. Pairing takes place in the fall, but courtship can be seen all winter. Only the female incubates the eggs and takes care of the ducklings.

-> Ducks are strong fliers; migrating flocks of Mallards have been estimated traveling at 55 miles per hour.

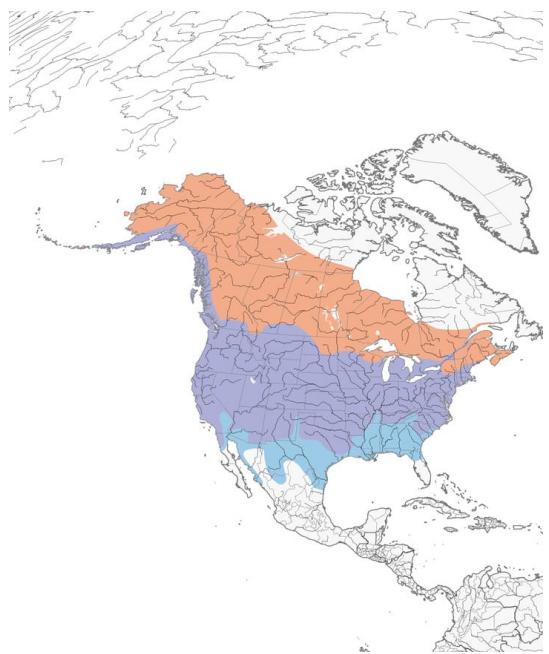
-> The standard duck's quack is the sound of a female Mallard. Males don't quack; they make a quieter, rasping sound.

-> Mallards, like other ducks, shed all their flight feathers at the end of the breeding season and are flightless for 3–4 weeks. They are secretive during this vulnerable time, and their body feathers molt into a concealing "eclipse" plumage that can make them hard to identify.

-> Many species of waterfowl form hybrids, and Mallards are particularly known for this, hybridizing with American Black Duck, Mottled Duck, Gadwall, Northern Pintail, Cinnamon Teal, Green-winged Teal, and Canvasback, as well as Hawaiian Ducks, the Grey Duck of New Zealand, and the Pacific Black Duck of Australia.

-> The oldest known Mallard was a male, and at least 27 years, 7 months old when he was shot in Arkansas in 2008. He had been banded in Louisiana in 1981.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male
None



Female
None



Breeding male
None



Immature male
None



Nonbreeding male
None



Nonbreeding male and female
None



Female and chick
None



Breeding male
None



Breeding male and female
None



Breeding male and female
None



Male (hybrid with American Black Duck)
None

Northern Shoveler

Bird Characteristics

Scientific Name: *Spatula clypeata*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 17.3-20.1 in (44-51 cm)

Weight: 14.1-28.9 oz (400-820 g)

Wingspan: 27.2-33.1 in (69-84 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 8-12 eggs

Number of Broods: 1 brood

Egg Length: 1.8-2.2 in (4.6-5.7 cm)

Egg Width: 1.3-1.5 in (3.3-3.9 cm)

Incubation Period: 22-25 days

Egg Description: Pale greenish gray or olive-buff.

Condition at Hatching: Covered in down and able to walk and swim.

Nest Placement: Females make a small depression on the ground, generally in areas with short vegetation within 150 feet of water.

Nest Description: Females use their body, feet, and bill to make a small depression on the ground about 8 inches wide. The nest scrape is usually surrounded on at least three sides by vegetation and lined with downy feathers.

Bird Information

Habitat: Northern Shovelers use shallow wetlands with submerged vegetation during the breeding season, nesting along the margins and in the neighboring grassy fields. Outside of the breeding season they forage in saltmarshes, estuaries, lakes, flooded fields, wetlands, agricultural ponds, and wastewater ponds.

Food: Shovelers eat tiny crustaceans, other aquatic invertebrates, and seeds which they filter out of the water with comblike projections (called lamellae) along the edge of the bill.

Behavior: Northern Shovelers swim through wetlands, often with their bills down in the water, swinging them side to side to filter out tiny crustacean prey. Sometimes large groups swim in circles to stir up food. They don't forage on land regularly, but they do rest on land and walk along wetland edges. They are fairly social ducks, occurring in groups with shovellers and other dabbling ducks, especially during the winter. During the breeding season, they are less tolerant of other shovellers encroaching on their territory. Defensive males often chase intruders on the water and in the air. Males court females on the wintering grounds with turns, dips, wing flaps, and head pumping. Pairs stay together during the breeding season, although males will occasionally mate with a second female. After breeding, males group together in small flocks before and after molting. Males molt their flight feathers before migrating south, becoming flightless for a brief period, when they tend to stay hidden in vegetation especially at night.

Conservation: Northern Shovelers are common and their populations were stable between 1966 and 2015, according to the

Color Pattern: None

Fun Facts

-> The bill of the Northern Shoveler is big (about 2.5 inches long) and shaped like a shovel, but that odd-shaped bill also has about 110 fine projections (called lamellae) along the edges that act like a colander, filtering out tiny crustaceans, seeds, and aquatic invertebrates from the water.

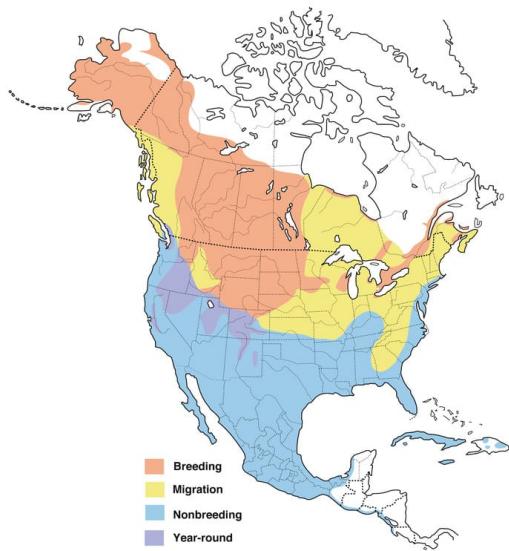
-> Northern Shovelers are monogamous and remain together longer than pairs of most other dabbling ducks. They form bonds on the wintering grounds and stay together until just before fall migration.

-> When flushed off the nest, a female Northern Shoveler often defecates on its eggs, apparently to deter predators.

-> Northern Shovelers don't just occur in the Americas, they also breed across Europe and spend the winter throughout Europe, Africa, and India.

-> The oldest recorded Northern Shoveler was a male, and at least 16 years, 7 months old when he was found in Nevada.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding male

Reddish-brown flanks contrast with white chest and black back. Note the male's green head, long, oversized black bill, and yellow eye.



Female/immature

Females have a coarsely marked brown head and body. Their powdery-blue shoulder patch is sometimes visible at rest. Note the long, oversized orange bill and orange legs.



Nonbreeding male

Subdued shadow of breeding plumage visible under coarse brown

markings. Long, oversized black bill.



Breeding male

Wings in flight show green secondaries and powdery-blue shoulder patch.
Large, wide bill is often noticeable even in flight.



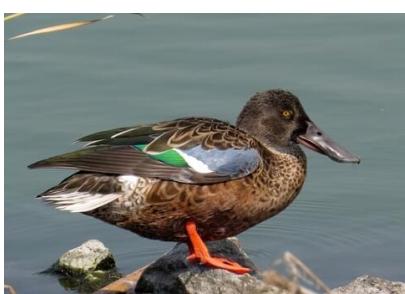
Breeding male

When molting into breeding plumage, males can still have some coarse brown markings on the chest and flanks.



Female/immature

Bill has a distinctive long and lobed shape.



Nonbreeding male
None



Female/immature
None



Chick
None



Flock
Large flocks sometimes feed by swimming in circles to stir up food.



Breeding male

Occurs in wetlands, particularly shallow ponds where it dabbles for food.

Green-winged Teal

Bird Characteristics

Scientific Name: *Anas crecca*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 12.2-15.3 in (31-39 cm)

Weight: 4.9-17.6 oz (140-500 g)

Wingspan: 20.5-23.2 in (52-59 cm)

Basic Description: The little Green-winged Teal is the smallest dabbling duck in North America. The natty male has a cinnamon-colored head with a gleaming green crescent that extends from the eye to the back of the head. In flight, both sexes flash deep-green wing patches (specula). Look for them on shallow ponds and in flooded fields, and listen for the male's decidedly non-ducklike whistle. These common ducks breed along northern rivers; wintering flocks can number as many as 50,000.

Nesting Characteristics

Clutch Size: 6-9 eggs

Egg Length: 1.7-2.0 in (4.3-5 cm)

Egg Width: 1.3-1.4 in (3.2-3.5 cm)

Incubation Period: 20-23 days

Egg Description: Creamy white to pale olive-buff

Condition at Hatching: Precocial chicks hatch with eyes open, covered in yellow and dark olive-brown down.

Nest Placement: With the male following behind, the female chooses a well-concealed site on the ground, usually within about 200 yards of water. Nests are typically built in sedge meadows, grasslands, brush thickets, or in woods near a pond. The female chooses a spot that offers dense cover that may form a complete canopy over the nest.

Nest Description: The female uses her feet to scrape a nest bowl where she lays the first egg, then adds plant material such as grasses, sedges, and leaves from around the nest site, using a sideways motion of her bill to build up a nest measuring 6–7 inches across and 2–6 inches deep. After laying her last egg, the female adds her down feathers to the nest bowl before beginning to incubate.

Bird Information

Habitat: Green-winged Teal breed mostly in isolated river deltas, forest wetlands, and mixed prairie regions across northern North America—they occur in the prairie pothole region, but they are not as restricted to it as many other dabbling ducks. Nesting sites include grasslands or sedge meadows that provide brush thickets of sedge or cattail for cover, and weedy or burned areas. They also favor beaver ponds in wooded areas, and nest along streams, potholes, lakes, and human-made wetlands. The race living on the Aleutian Islands nests near shallow, weedy ponds, saltwater shorelines, and beaches. Migrating birds stop over in shallow wetlands, coastal marshes, and flooded fields. Wintering birds typically flock to shallow wetlands, including coastal marshes and bayous, estuaries, the playa lakes of Texas's southern high plains, riparian sloughs, and agricultural areas such as rice fields. The nonmigratory Aleutian race of Alaska winters along the islands' beaches.

Food: Green-winged Teal eat mainly aquatic invertebrates and seeds. They feed in shallow water, near shorelines, on mudflats, and in agricultural fields, taking advantage of whatever foods are most abundant. Migrating and wintering birds may feed at night or during the day. On the water they dabble along the surface where they pluck or strain seeds and invertebrates, and dip their head and neck or tip up to reach submerged food. They also probe mudflats for invertebrates and eat worms, seed shrimp, and copepods living just above the sediment. Depending on where they're feeding, plant foods may include sedge fruit, seeds of pondweeds, grasses, smartweeds, sea purslane, bulrush, dwarf spikerush, swamp timothy, and agricultural crops including corn and rice. Animal prey includes midges, tadpoles, molluscs, and crustaceans. Chicks up to 2 weeks old eat mainly insect larvae.

Behavior: Green-winged Teal are fast, agile, buoyant flyers. They can take off straight from the water without running across the surface. Though they are dabbling ducks that usually tip up to feed, they occasionally dive for food and to avoid predators. In winter Green-winged Teal gather in roosting flocks of up to 50,000 birds. Courtship starts in the fall and peaks in January and February; they choose new partners each year. Males try to secure a mate using an elaborate set of movements and vocal displays, with groups of up to 25 males courting females both on the water and in courtship flights. Although most pairs form on the wintering grounds, pair formation continues during spring migration and on the breeding grounds. The male defends its mate from copulation attempts by other males, then deserts the female once incubation is underway. A few hours after they hatch the chicks can swim, dive, walk, and forage for themselves, although the female continues to brood them at night and to protect them when the weather turns cold.

Conservation: Green-winged Teal are numerous and their population has increased over

recent decades, according to waterfowl surveys by the U.S. Fish and Wildlife Service. They estimated the North American breeding population in 2015 was at least 4 million, almost double the long-term average. Green-winged Teal are not on the

Color Pattern: Adult males have grayish bodies with a narrow white vertical stripe extending from the waterline to the shoulder. In good light, their dark heads are cinnamon with a wide green swoop from the eye to the back of the neck. Females are brown with a yellowish streak along the tail. Both sexes have green wing patches in the secondaries (speculum), but these may be hidden when not in flight.

Fun Facts

-> The American and Eurasian forms of the Green-winged Teal were formerly considered different species. The Eurasian teal differ from the American by lacking the vertical white shoulder stripe and having a horizontal white stripe along the back instead. Eurasian teal show up casually each year along both the Pacific and Atlantic coasts.

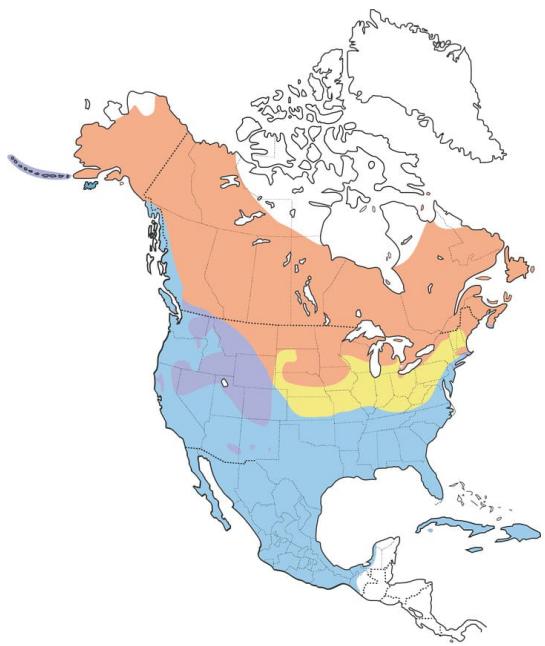
-> The Aleutian Islands of Alaska support their own race of Green-winged Teal,

-> Green-winged Teals have closely spaced, comblike projections called lamellae around the inner edge of the bill. They use them to filter tiny invertebrates from the water, allowing the birds to capture smaller food items than other dabbling ducks.

-> Green-winged Teal sometimes switch wintering sites from year to year. One banding study found that individuals wintering in Texas one year went as far away as California in subsequent years. This lack of philopatry, or “faithfulness” to a particular site, may reflect the tendency of males that did not breed the year before to try to find mates among a different set of wintering females.

-> The oldest known Green-winged Teal was at least 20 years and 3 months, based on banding data. It was a female banded in 1941 in Oklahoma, and recovered by a hunter 1960 in Missouri.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male (American)

Small, blocky duck. Breeding males have a chestnut head with a green streak behind the eye and a vertical white stripe on the side.



Male (Eurasian)

Eurasian subspecies have a horizontal white stripe on the side as opposed to the vertical stripe on American subspecies.



Female/immature male

Small duck with a blocky body. Females and nonbreeding males have a cream-colored stripe at the rear.



Male and female (American)

In flight both males and females have a green "speculum" patch in the wing.



Male (American)

Small duck with a blocky body. Breeding males have a chestnut head with a green stripe behind the eye and a vertical white stripe on the side. The undertail coverts are cream colored.



Female/immature male

Green speculums often hidden on resting birds, but are visible in flight.



Immature

Feeds in shallow bodies of water and in flooded fields. Breeds in dense vegetation along river deltas.



Male and female (Eurasian)

None



Male and female (American)

Wintering birds typically flock to shallow wetlands, including coastal marshes and bayous, estuaries, riparian sloughs, and agricultural areas such as rice fields.

Canvasback

Bird Characteristics

Scientific Name: *Aythya valisineria*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 18.9-22.1 in (48-56 cm)

Weight: 30.4-56.0 oz (862-1588 g)

Wingspan: 31.1-35.0 in (79-89 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 5-11 eggs

Number of Broods: 1 brood

Egg Length: 2.4-2.6 in (6-6.7 cm)

Egg Width: 1.6-1.8 in (4.2-4.6 cm)

Incubation Period: 24-29 days

Egg Description: Greenish drab.

Condition at Hatching: Covered in down and able to leave the nest soon after hatching.

Nest Placement: Female Canvasbacks select the nest spot, typically in shallow wetlands with cattails, rushes, sedges, and reeds. The nest is most frequently built over water, but sometimes on land.

Nest Description: Female Canvasbacks build a large bulky platform of sedges, reeds, cattails, and rushes. Females loosely weave the material together and attach it to emergent stalks of vegetation, such that the nest floats on the water. Many nests are also covered from above by a canopy of plant stalks. Females continue to add material and down feathers to the nest for the first 10 days of incubation.

Bird Information

Habitat: Canvasbacks breed in small lakes, deep-water marshes, bays, and ponds. They tend toward waters with a dense border of cattails, rushes, and reed grass, but in the boreal forest they use open marshes. During migration and on the wintering grounds, Canvasbacks use marine and freshwater areas including estuaries, lagoons, rivers, ponds, marshes, lakes, and occasionally flooded agricultural fields.

Food: Canvasbacks are omnivores, eating everything from seeds to plant tubers and from mussels to insects. During the breeding season they eat both plant and animal foods, but during migration and winter they primarily eat rhizomes and tubers from aquatic plants. Canvasbacks dive straight down to depths of around 7 feet to extract pieces of aquatic plants with their bill. Other food is taken from or just below the surface of the water.

Behavior: Canvasbacks are diving ducks at home in the water, seldom going ashore to dry land. They sleep on the water with their bill tucked under the wing, and they nest on floating mats of vegetation. To get airborne Canvasbacks need a running start, but once in the air they are strong and fast fliers, clocking airspeeds of up to 56 miles per hour. Canvasbacks are social outside of the breeding season; they gather in large rafts by the thousands to tens of thousands. Only when winter food is scarce or clumped do they defend foraging areas against other Canvasbacks. During spring and early in the breeding season, they act more aggressively. Threat displays include putting the bill in the water or on the chest, jabbing, pumping the head, or chasing. Pairs begin forming during spring migration and continue on the breeding grounds. Courting male ducks gather around one female, assessing each other with a series of head movements until the female chooses one of them. Males stretch their necks, lower their heads while giving a coughing sound, and toss their head all the way back until it reaches the top of the back. Females stretch their necks and raise and lower their head to signal acceptance of a male. About halfway through incubation, males move to large fresh and brackish wetlands in central and western Canada to molt before migrating south in the fall. During this flightless period, males stay away from the shore, feeding on submerged vegetation and resting on islands. Females continue to incubate and feed hatchlings until it is time to migrate south.

Conservation: Canvasback populations have fluctuated widely since the 1950s. Low numbers in the 1980s put the Canvasback on species of special concern lists, but numbers increased greatly in the 1990s. The

Color Pattern: None

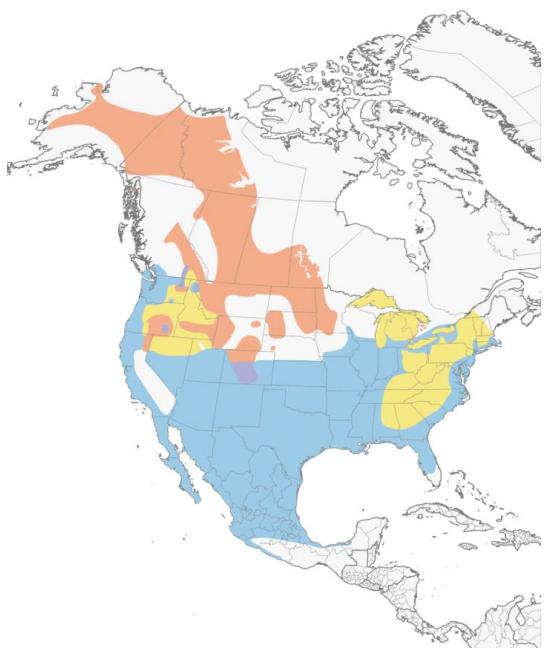
Fun Facts

-> The species name of the Canvasback,

-> In the world of ducks, females abide by the saying, "don't put all your eggs in one basket." Female Canvasbacks sometimes lay eggs in another Canvasback's nest; and Redheads and Ruddy Ducks sometimes lay their eggs in a Canvasback's nest.

-> The oldest recorded Canvasback was a male, and at least 22 years, 7 months old when he was shot in California in 1991. He had been banded in the same state in 1969.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male

Large diving duck with a sloping forehead and a stout neck. Breeding males have black chests and rears with a white body.



Female

Large diving duck with a sloping forehead and a stout neck. Females have pale bodies and dark chests and rears.



Flock

In flight, note dark neck, head, and rear with white body and underwings.



Eclipse male

Nonbreeding males are browner than breeding males.



Female (with Redhead)

Sloping head shape and paler body distinguishes Canvasback (middle) from similar Redhead (left).



Female

Large brownish duck with gracefully sloping forehead and bill.



Male and female

Breeds in small lakes, deep marshes, sheltered bays of large freshwater and alkali lakes, ponds, sloughs, potholes, and shallow river impoundments.



Male
None



Habitat

In winter found in deep freshwater lakes and coastal waters including brackish and saltwater estuaries, shallow bays, and harbors. Often in large groups.

Hooded Merganser

Bird Characteristics

Scientific Name: *Lophodytes cucullatus*

Order: Anseriformes

Family Name: Anatidae

Conservation Status: Low Concern

Length: 15.8-19.3 in (40-49 cm)

Weight: 16.0-31.0 oz (453-879 g)

Wingspan: 23.6-26.0 in (60-66 cm)

Basic Description: "Hooded" is something of an understatement for this extravagantly crested little duck. Adult males are a sight to behold, with sharp black-and-white patterns set off by chestnut flanks. Females get their own distinctive elegance from their cinnamon crest. Hooded Mergansers are fairly common on small ponds and rivers, where they dive for fish, crayfish, and other food, seizing it in their thin, serrated bills. They nest in tree cavities; the ducklings depart with a bold leap to the forest floor when only one day old.

Nesting Characteristics

Clutch Size: 5-13 eggs

Number of Broods: 1 brood

Egg Length: 1.7-2.4 in (4.3-6.2 cm)

Egg Width: 1.5-2.1 in (3.9-5.4 cm)

Incubation Period: 26-41 days

Nestling Period: 1 day

Egg Description: White, nearly spherical, and unusually thick shelled.

Condition at Hatching: Well-developed and downy, with brown backs, yellowish or reddish cheeks, white underparts, and grayish spots on wings and tail.

Nest Placement: The female chooses the nest site, and may start scouting for next year's tree

cavity at the end of each breeding season. Nest cavities can be in live or dead trees and are usually close to water. Cavities are typically 10–50 feet off the ground, up to about 90 feet. Hooded Mergansers nest readily in boxes, preferring those with wood shavings or nest material from previous uses. They prefer cavities with 3–5 inch openings.

Nest Description: The female makes a shallow bowl in the material already present in the cavity, gradually adding down from her belly after she starts laying eggs.

Bird Information

Habitat: Hooded Mergansers breed in forested wetlands throughout the eastern half of North America and the Pacific Northwest, and may also nest in treeless wetlands where people have put up nest boxes. They are most common in forests around the Great Lakes. Their habitat ranges from spruce-fir forest in the Northwest to pine-hardwood forest and cottonwood-elder riparian forest in the Midwest, to oak-cypress-tupelo forest in the Southeast. Families of newly hatched ducklings forage in shallow water such as marshes, small lakes, ponds, beaver wetlands, swamps, and forested rivers—and rest on exposed rocks, logs, or sandbars. They winter in these habitats as well as on shallow freshwater and brackish bays, estuaries, and tidal creeks, where they often concentrate along the edge of ice. During migration they stop in a wider range of habitats, including open waters of rivers and lakes, brackish coastal bays, tidal creeks, and seasonally flooded forest.

Food: Hooded Mergansers eat small fish, aquatic insects, crustaceans (especially crayfish), amphibians, vegetation, and mollusks—their diet is broader than in other mergansers, which eat fish almost exclusively. Hooded Mergansers dive in clear, shallow forest ponds, rivers, and streams and locate prey by sight, with eyes that are specially adapted to seeing underwater. They propel themselves with their feet and use their slender, serrated bills to grasp their prey. Ducklings can dive for food right after leaving the nest, at one day old, though their dives are short and shallow during their first week. They also feed by swimming with just their heads underwater.

Behavior: Unlike dabbling ducks, Hooded Mergansers swim low in the water. Their legs are far back on their bodies, which helps in diving but makes them awkward on land. They take flight by running across the water, flying with fast wingbeats and never gliding until they are about to land (by skidding to a stop on the water). Hooded Mergansers are usually in pairs or small groups of up to 40 birds. They court in groups of one or more females and several males. The males raise their crests, expanding the white patch, often while shaking their heads. Their most elaborate display is head-throwing, in which they jerk their heads backwards to touch their backs, with crests raised, while giving a froglike croak. Females court by bobbing their heads and giving a hoarse gack. Once a female begins incubating eggs her mate abandons her, and it's not known if they reunite the following season. Incubating females may use a broken-wing display to protect eggs or nestlings from raccoons, mink, black rat snakes, black bears, pine martens, European Starlings, Northern Flickers, Red-headed Woodpeckers, and Red-bellied Woodpeckers.

Conservation: Hooded Mergansers are fairly common and their populations are stable and possibly increased between 1966 and 2015, according to the North American Breeding Bird Survey. The species rates a 9 out of 20 on the Continental Concern Score. Hooded Merganser are not on the

Color Pattern: Adult male Hooded Mergansers are black above, with a white breast and rich chestnut flanks. The black head has a large white patch that varies in size when the crest is raised or lowered, but is always prominent. Females and immatures are gray and brown, with warm tawny-cinnamon tones on the head.

Fun Facts

-> Along with Wood Ducks and other cavity-nesting ducks, Hooded Mergansers often lay their eggs in other females' nests. This is called "brood parasitism" and is similar to the practice of Brown-headed Cowbirds, except that the ducks only lay eggs in nests of their own species. Female Hooded Mergansers can lay up to about 13 eggs in a clutch, but nests have been found with up to 44 eggs in them.

-> Hooded Mergansers find their prey underwater by sight. They can actually change the refractive properties of their eyes to improve their underwater vision. In addition, they have an extra eyelid, called a "nictitating membrane," which is transparent and helps protect the eye during swimming, like a pair of goggles.

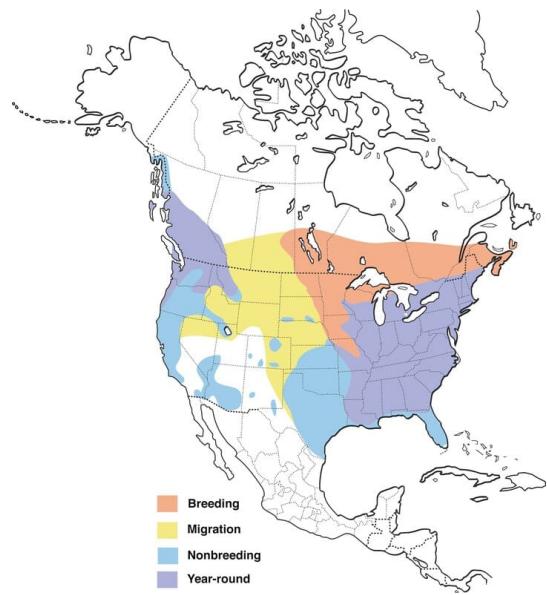
-> Hooded Merganser ducklings leave their nest cavity within 24 hours of hatching. First, their mother checks the area around the nest and calls to the nestlings from ground level. From inside the nest, the little fluffballs scramble up to the entrance hole and then flutter to the ground, which may be 50 feet or more below them. In some cases they have to walk half a mile or more with their mother to the nearest body of water.

-> On the bird family tree, Hooded Mergansers (genus

-> The Hooded Merganser is the second-smallest of the six living species of mergansers (only the Smew of Eurasia is smaller) and is the only one restricted to North America.

-> The oldest recorded Hooded Merganser was a male and at least 14 years, 6 months old when he was shot in Mississippi in 2009. He had been banded in Minnesota in 1995.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Small duck with slender bill and flamboyant oversized head. Hood (crest) can be raised as shown or lowered, changing the shape of the head and the white head patch.



Female

Small brownish duck with warm cinnamon crest and gray-brown body. Long tail is not always visible.



Nonbreeding male

Small, brownish duck with fairly long, straight, slender bill. Ragged crest is

cinnamon brown, warmer than the rest of the body.



Adult male and female
None



Female
Small, brownish duck with slender, straight bill. Movable crest can give head varied shapes; it's usually warmer brown than the rest of the bird, especially toward the tip.



Male and female
Male's crest when lowered lies against the back of the neck, the white patch minimized to a stripe behind the eye.



Adult male

Flamboyant small duck with oversized head when crest is extended. White chest/sides are crossed by one black stripe and bordered by a second; flanks are chestnut.



Immature male

None



Female and juvenile

Small brownish duck with straight, slender bill and warm brown crest. In summer may be seen with many ducklings in tow.



Adult male and female

May form small flocks; males perform several types of displays that emphasize the black-and-white crest, especially when females are present.



Female

Nests in holes in trees and in nest boxes.

Ring-necked Pheasant

Bird Characteristics

Scientific Name: *Phasianus colchicus*

Order: Galliformes

Family Name: Phasianidae

Conservation Status: Low Concern

Length: 19.7-27.6 in (50-70 cm)

Weight: 17.6-105.8 oz (500-3000 g)

Wingspan: 22.1-33.9 in (56-86 cm)

Basic Description: Ring-necked Pheasants stride across open fields and weedy roadsides in the U.S. and southern Canada. Males sport iridescent copper-and-gold plumage, a red face, and a crisp white collar; their rooster-like crowing can be heard from up to a mile away. The brown females blend in with their field habitat. Introduced to the U.S. from Asia in the 1880s, pheasants quickly became one of North America's most popular upland game birds. Watch for them along roads or bursting into flight from brushy cover.

Nesting Characteristics

Clutch Size: 7-15 eggs

Number of Broods: 1-2 broods

Egg Length: 1.6-1.9 in (4.1-4.9 cm)

Egg Width: 1.3-1.5 in (3.3-3.8 cm)

Incubation Period: 23-28 days

Egg Description: Olive-brown to blue-gray.

Condition at Hatching: Pheasant chicks hatch completely covered with down, eyes open. They leave the nest immediately, following the female and feeding for themselves.

Nest Placement: The female Ring-necked Pheasant chooses her nest site, which is usually less than half a mile from her wintering range. Nests are usually surrounded by tall vegetation and built on the ground, often in a natural depression or a hollow that the female scoops out

herself, about a third of an inch to 3 inches deep.

Nest Description: The Ring-necked Pheasant's nest is a rudimentary affair—unlined or sparsely lined with vegetation taken from beside the nest depression. Females gather grasses, leaves, weed stalks, fine twigs, corn husks, and/or a few feathers from their own breast with which to line the nest. The average nest bowl is about 7 inches across and 2.8 inches deep.

Bird Information

Habitat: Look for Ring-necked pheasants on agricultural land and old fields—especially fields that are interspersed with grass ditches, hedges, marshes, woodland borders, and brushy groves. These birds also occur in an impressive range of habitats: in Hawaii, for example, they can be found from sea level to a 11,000 feet elevation. They can live in forests, grasslands, and deserts. Despite this versatility, Ring-necked Pheasants do gravitate to particular kinds of habitat for specific activities. Typically, they roost in trees or dense shrubs in spring and summer and in forested wetlands, farm fields and weedy areas in fall. For early season nesting, they seek cover along grassy roadsides, fence lines, ditches, and wetlands. As the season progresses and vegetation grows taller and denser, they shift their nesting activity to fields of hay, particularly alfalfa.

Food: In fall and winter, Ring-necked Pheasants eat seeds—especially grain from farm fields—as well as grasses, leaves, roots, wild fruits and nuts, and insects. Their spring and summer diet is similar, but with a greater emphasis on animal prey and fresh greenery. They eat insects such as grasshoppers, beetles, caterpillars, crickets, and ants, as well as snails and earthworms. Ring-necked Pheasants forage in grasslands, hayfields, woodland edges, and brushy areas. They sometimes pick waste grain from cow manure in pastures. Pheasants take most of their food from the ground, scratching or digging with their bills. They can retrieve roots or seeds from as deep as three inches below the soil surface. They also sometimes forage in shrubs or trees for fruit, leaves, and buds.

Behavior: Male Ring-necked Pheasants establish breeding territories in early spring. A male maintains sovereignty over his acreage by crowing and calling; he approaches intruders with head and tail erect, and may tear up grass that he then tosses. Competitors sometimes resort to physical combat. After a series of escalating threat displays, fighting cocks flutter upward, breast to breast, and bite at each other's wattles. They may take turns leaping at each other with bill, claws, and spurs deployed. Usually the challenger runs away before long, and these fights are rarely fatal. Females assemble in breeding groups focused on a single male and his territory. The cock courts the hen with a variety of displays—strutting or running; spreading his tail and the wing closest to her while erecting the red wattles around his eyes and the feather-tufts behind his ears. He also “tidbits”—poses with head low while calling her to a morsel of food. A female may flee at first, leading the male on a chase punctuated by courtship displays. Males guard their groups of females from the advances of other males. Like many birds, Ring-necked Pheasants take frequent dust baths, raking their bills and scratching at the ground, shaking their wings to sweep dust and sand into their feathers, lying on their sides and rubbing their heads. Dust-bathing probably removes oil, dirt, parasites, dead skin cells, old feathers,

and the sheaths of new feathers.

Conservation: Ring-necked Pheasants are common within their range, although their numbers have declined since a peak in the mid-twentieth century. The North American Breeding Bird Survey noted that despite increases in some areas, overall there was been a population decline of about 32% between 1966 and 2014. Partners in Flight estimates the global breeding population at about 50 million, with about 30% of them in North America (29% in the U.S., 1% in Canada). The species scores an 8 out of 20 on the Continental Concern Score. Ring-necked Pheasants is not on the

Color Pattern: Male Ring-necked Pheasants are gaudy birds with red faces and an iridescent green neck with a bold white ring. The male's very long tail is coppery with thin, black bars. Females are brown with paler scaling on the upperparts; buff or cinnamon underparts with black spotting on the sides; and thin, black bars on their tails.

Fun Facts

-> Pheasants, along with most members of the grouse family, have specialized, powerful breast muscles—the “white meat” that you find on a chicken. These muscles deliver bursts of power that allow the birds to escape trouble in a hurry, flushing nearly vertically into the air and reaching speeds of nearly 40 miles per hour.

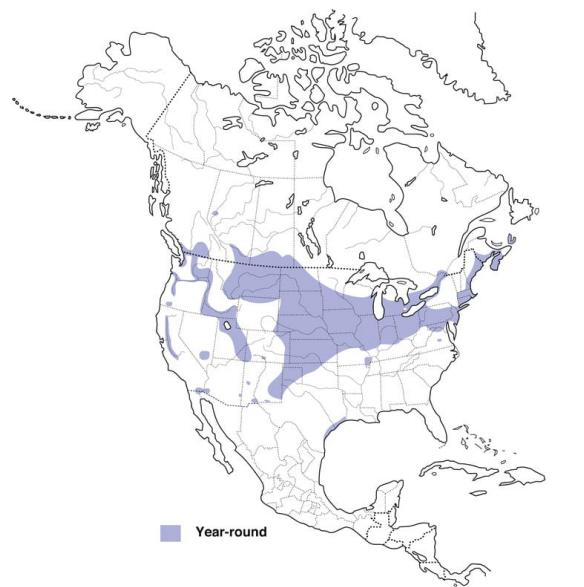
-> While the birds normally don't cover more than about 600 feet at a time, strong winds can extend their flights considerably. Observers in 1941 reported seeing a pheasant fly a record four miles while crossing a body of water.

-> Male Ring-necked Pheasants may harass other ground-nesting birds, such as the Gray Partridge and the Greater Prairie-Chicken. Female pheasants sometimes lay their own eggs in these birds' nests. This may explain why some male pheasants have been seen chasing away male prairie-chickens and courting females—the pheasants may have been raised in prairie-chicken nests and imprinted on the wrong species.

-> Ring-necked Pheasants sometimes cope with extreme cold by simply remaining dormant for days at a time.

-> Pheasants practice "harem-defense polygyny" where one male keeps other males away from a small group of females during the breeding season.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male

Large, long-tailed and long-necked game bird. Males are gaudy with green head, white collar, and coppery body plumage with black and white spots.



Female

Fairly large, long-tailed and long-necked game bird. Females are brown overall marked with black, particularly on the back and wings.



Male (Green)

None



Male
None



Female
Fairly large, long-tailed and long-necked game bird. Females are brown overall marked with black, particularly on the back and wings.



Male
When flushed, bursts vertically into flight with loud wing flapping; typically flies short distance to cover. Long tail, coppery body, and white collar are distinctive.



Female

Fairly large game bird with long, pointed tail. Usually forages on the ground in agricultural, grassy or brushy areas. Females form flocks of up to 18 birds in summer and 30 or more in winter.



Male

Large game bird with gaudy plumage: green head with red facial skin; white collar; and gold to coppery body with black and white spots.



Female and juvenile

Females are fairly large, brownish game birds with long, pointed tails. Juveniles are mobile from hatching; up to 15 may be seen with one female.



Male

Large game bird typically seen on agricultural lands and grassy or brushy

areas.

Ruffed Grouse

Bird Characteristics

Scientific Name: *Bonasa umbellus*

Order: Galliformes

Family Name: Phasianidae

Conservation Status: Low Concern

Length: 15.8-19.7 in (40-50 cm)

Weight: 15.9-26.5 oz (450-750 g)

Wingspan: 19.7-25.2 in (50-64 cm)

Basic Description: The dappled, grayish or reddish Ruffed Grouse is hard to see, but its “drumming on air” display is a fixture of many spring forests. It can come as a surprise to learn this distant sound, like an engine trying to start, comes from a bird at all. This plump grouse has a cocky crest and a tail marked by a broad, dark band near the tip. Displaying males expose a rich black ruff of neck feathers, giving them their name.

Nesting Characteristics

Clutch Size: 9-14 eggs

Egg Length: 1.5-1.6 in (3.78-4.14 cm)

Egg Width: 1.1-1.2 in (2.9-3 cm)

Incubation Period: 23-24 days

Egg Description: Eggs are milky to cinnamon buff sometimes spotted with reddish or brown.

Condition at Hatching: Precocial; chicks hatch covered in sandy to brown down with a triangular patch of black feathers around the ears. Chicks can walk and feed themselves within 24 hours of hatching.

Nest Placement: After mating, female Ruffed Grouse choose a nest site at the base of a tree, stump, or rock in areas with sparse ground cover that give a clear view of predators. Nests may also be built in brush piles, or in the bases of partially open, hollowed-out stumps.

Nest Description: The Ruffed Grouse’s nest is a simple, hollowed-out depression in leaves on

the forest floor, reaching up to 6 inches across and 3 inches deep. Females build the bowl-shaped nest and typically line the bowl with vegetation that they pluck from the edge of the nest site.

Bird Information

Habitat: Mixed-age groves of aspen, spruce, and birch make ideal habitat for Ruffed Grouse in the northern part of their range. Farther south, grouse inhabit deciduous forests of oaks, hickories, and pines, while in the Pacific Northwest you can find them in riparian habitats. Because young stands of trees are important for both cover and food, grouse populations are higher in areas where logging, burning, and other disturbance create early-successional forests. Populations of Ruffed Grouse are lower in mature forests and in small patches of woods surrounded by agricultural lands.

Food: Ruffed Grouse feed almost exclusively on vegetation, including leaves, buds, and fruits of ferns, shrubs, and woody plants. In fall, soft fruits and acorns become an important part of the diet. Ruffed Grouse's ability to digest foods high in cellulose make it possible for them to survive harsh winter conditions in the northern part of their range, where they feed on buds and twigs of aspen, birch, and willow. In winter, birds in the south forage on leaves and fruit of greenbrier, mountain laurel, Christmas fern, and other green plants. Although insects and other invertebrates make up only a small part of the adult grouse's diet, chicks 2 to 4 weeks old depend on this protein-rich prey.

Behavior: Thanks to their cryptic coloration and slow, deliberate movements, Ruffed Grouse can be difficult to spot as they forage on the forest floor or walk along the low branches of trees and shrubs to pluck berries and buds. The grouse's habit of burying itself in soft snow to roost can lead to surprising encounters for snowshoers or skiers when the birds erupt from beneath the surface. When displaying for females or defending territory, the male grouse stands atop a log, rock, or low dirt mound with crest, ruff and tail erect, puffing up to nearly double its normal size and beating its wings to create a rapid-fire drumming sound. A drumming male will often trigger a response in a nearby male defending its own territory. Following the elaborate display, mating lasts only a few seconds—females then go on their way to build a nest at the base of a tree or rock and raise the young on their own. Although Ruffed Grouse are normally solitary, small groups of unrelated birds may form in fall or winter to take advantage of productive feeding spots.

Conservation: Ruffed Grouse are fairly common and widespread. Their populations may have declined between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 18 million, with 14% living in the U.S. and 86% in Canada. The species rates a 10 on the Continental Concern Score. Ruffed Grouse is listed as a Common Bird in Steep Decline by Partners in Flight, but is not on the

Color Pattern: Ruffed Grouse are intricately patterned with dark bars and spots on either a reddish-brown or grayish background. Dark bars down the side of the neck continue and widen on the belly. The tail is finely barred, with one wide, black band near the tip.

Fun Facts

-> The early conservationist Aldo Leopold wrote of the Ruffed Grouse, "The autumn landscape in the north woods is the land, plus a red maple, plus a Ruffed Grouse. In terms of conventional physics, the grouse represents only a millionth of either the mass or the energy of an acre yet subtract the grouse and the whole thing is dead."

-> Ruffed Grouse can digest bitter, often toxic plants that many birds can't handle. Levels of defensive plant compounds in buds of quaking aspen, a major winter-time food source for Ruffed Grouse, reflect the cyclic rise and fall of grouse populations: they're lowest when grouse densities are increasing, and highest when grouse densities decline.

-> Ruffed Grouse can consume and digest large volumes of fibrous vegetation thanks to extra-long, paired pouches at the junction of the small and large intestines. In the northern part of their range, Ruffed Grouse depend on snow as a wintertime roost, burying themselves at night in soft drifts that provide insulating cover. Birds in the south seek out dense stands of conifers that offer protection from chilling winds.

-> Ruffed Grouse's popularity as a game bird led to some of North America's earliest game management efforts: New York had a closed season (no hunting in part of the year) on Ruffed Grouse starting in 1708.

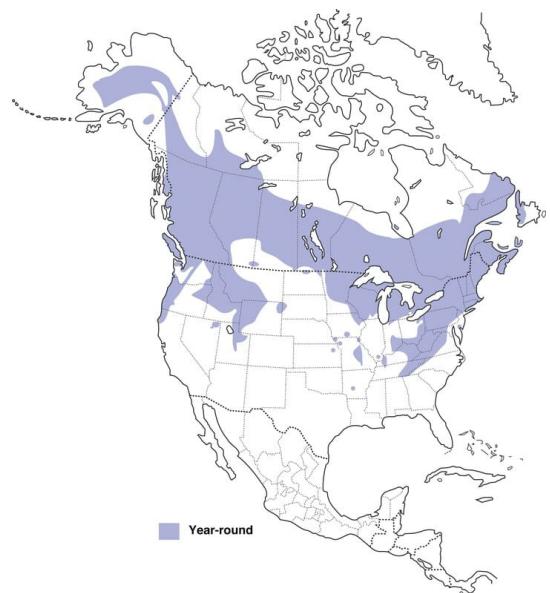
-> The toes of Ruffed Grouse grow projections off their sides in winter, making them look like combs. The projections are believed to act as snowshoes to help the grouse walk across snow.

-> In much of their range, Ruffed Grouse populations go through 8-to-11-year cycles of increasing and decreasing numbers. Their cycles can be attributed to the snowshoe hare cycle. When hare populations are high, predator populations increase too. When the hare numbers go down, the predators must find alternate prey and turn to grouse, decreasing their numbers.

-> Ruffed Grouse nests are occasionally parasitized by Ring-necked Pheasants or Wild Turkeys that lay eggs in the nests.

-> The male Ruffed Grouse's signature drumming display doesn't involve drumming on anything but air. As the bird quickly rotates its wings forward and backward, air rushes in beneath the wings creating a miniature vacuum that generates a deep, thumping sound wave that carries up to a quarter of a mile.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Medium-sized game bird with short crest. A well-camouflaged bird with intricately barred and spotted plumage. Individuals can be grayish brown overall, reddish brown, or an intermediate tawny brown.



Display

Medium-sized game bird with extravagant display, including erecting long neck feathers to create a black "ruff" and fanning the tail, exposing a dark band near the tip.



Adult

When not displaying, sexes are difficult to tell apart. Often forages among tree branches during winter, especially when snow covers the ground.



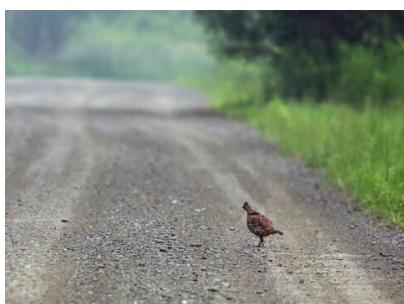
Adult

Often bathes in dust or lies on anthills ("anting"), fluffing feathers to clean them.



Adult

Medium-sized game bird with peaked crest, pale line through the eye, and dark band near tip of tail. Sometimes forages in trees, especially in winter, taking berries and buds.



Adult

Lives in forest undergrowth where it can be very difficult to see; often most

easily seen when crossing roads.

Wild Turkey

Bird Characteristics

Scientific Name: *Meleagris gallopavo*

Order: Galliformes

Family Name: Phasianidae

Conservation Status: Low Concern

Length: 43.3-45.3 in (110-115 cm)

Weight: 88.2-381.0 oz (2500-10800 g)

Wingspan: 49.2-56.7 in (125-144 cm)

Basic Description: Most North American kids learn turkey identification early, by tracing outlines of their hands to make Thanksgiving cards. These big, spectacular birds are an increasingly common sight the rest of the year, too, as flocks stride around woods and clearings like miniature dinosaurs. Courting males puff themselves into feathery balls and fill the air with exuberant gobbling. The Wild Turkey's popularity at the table led to a drastic decline in numbers, but they have recovered and now occur in every state except Alaska.

Nesting Characteristics

Clutch Size: 4-17 eggs

Number of Broods: 1 brood

Egg Length: 1.9-2.7 in (4.9-6.9 cm)

Egg Width: 1.6-1.9 in (4.1-4.7 cm)

Incubation Period: 25-31 days

Nestling Period: 1 day

Egg Description: Pale yellowish tan, evenly marked with reddish brown or pinkish spots.

Condition at Hatching: Well-developed and covered with tawny, brown, pinkish, and gray down.

Nest Placement: Wild Turkeys nest on the ground in dead leaves at the bases of trees, under brush piles or thick shrubbery, or occasionally in open hayfields.

Nest Description: The female scratches a shallow depression in the soil, about 1 inch deep, 8–11 inches wide, and 9–13 inches long. Wild Turkeys use only the dead leaves or other plant materials already present at the nest site.

Bird Information

Habitat: Wild Turkeys live year-round in open forests with interspersed clearings in 49 states (excluding Alaska), parts of Mexico, and parts of southern Alberta, Ontario, Manitoba, and Saskatchewan, Canada. Turkeys in northeastern North America use mature oak-hickory forests and humid forests of red oak, beech, cherry, and white ash. In the Southeast, turkeys live in forests containing pine, magnolia, beech, live oak, pecan, American elm, cedar elm, cottonwood, hickory, bald cypress, tupelo, sweetgum, or water ash, with understories of sourwood, huckleberry, blueberry, mountain laurel, greenbrier, rose, wisteria, buttonbush, or Carolina willow. Southwestern birds are often found in open grassy savannah with small oak species. In Alberta, turkeys live between pinyon-juniper forest and ponderosa pine forest.

Food: Wild Turkeys eat plant matter that they forage for in flocks, mostly on the ground but sometimes climbing into shrubs or low trees for fruits. In fall, winter, and early spring they scratch the forest floor for acorns from red oak, white oak, chestnut oak, and black oak, along with American beech nuts, pecans, hickory nuts, wild black cherries, white ash seeds, and other seeds and berries. When deep snow covers the ground, they eat hemlock buds, evergreen ferns, spore-covered fronds of sensitive ferns, club mosses, and burdock. During the spring they may dig up plant bulbs if nuts are scarce. In late spring and summer, Wild Turkeys strip seeds from sedges and grasses, occasionally supplementing their plant diet with salamanders, snails, ground beetles, and other insects. Like most birds they swallow grit to help digest their food.

Behavior: Wild Turkeys get around mostly by walking, though they can also run and fly—when threatened, females tend to fly while males tend to run. At sundown turkeys fly into the lower limbs of trees and move upward from limb to limb to a high roost spot. They usually roost in flocks, but sometimes individually. Courting males gobble to attract females and warn competing males. They display for females by strutting with their tails fanned, wings lowered, while making nonvocal hums and

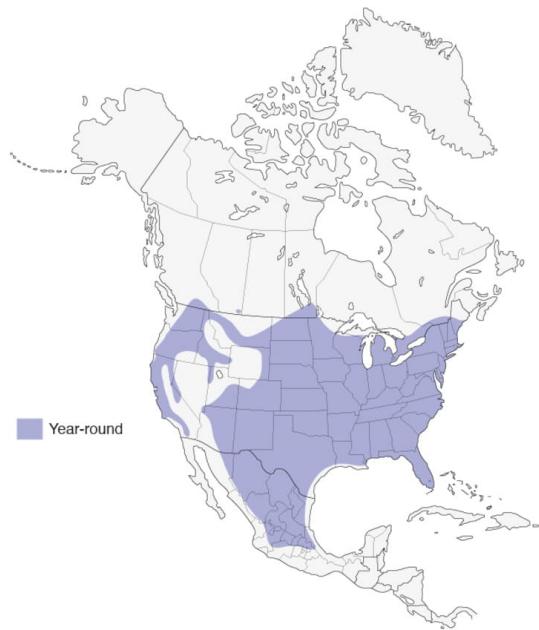
Conservation: Wild Turkeys are numerous and their populations increased sharply between 1966 and 2014, according to the North American Breeding Survey. Partners in Flight estimates a global breeding population of 7.8 million with about 89% living in the U.S., 10% in Mexico, and 2% in Canada. They rate a 7 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Turkeys are dark overall with a bronze-green iridescence to most of their plumage. Their wings are dark, boldly barred with white. Their rump and tail feathers are broadly tipped with rusty or white. The bare skin of the head and neck varies from red to blue to gray.

Fun Facts

- > The Wild Turkey and the Muscovy Duck are the only two domesticated birds native to the New World.
- > In the early 1500s, European explorers brought home Wild Turkeys from Mexico, where native people had domesticated the birds centuries earlier. Turkeys quickly became popular on European menus thanks to their large size and rich taste from their diet of wild nuts. Later, when English colonists settled on the Atlantic Coast, they brought domesticated turkeys with them.
- > The English name of the bird may be a holdover from early shipping routes that passed through the country of Turkey on their way to delivering the birds to European markets.
- > Male Wild Turkeys provide no parental care. Newly hatched chicks follow the female, who feeds them for a few days until they learn to find food on their own. As the chicks grow, they band into groups composed of several hens and their broods. Winter groups sometimes exceed 200 turkeys.
- > As Wild Turkey numbers dwindled through the early twentieth century, people began to look for ways to reintroduce this valuable game bird. Initially they tried releasing farm turkeys into the wild but those birds didn't survive. In the 1940s, people began catching wild birds and transporting them to other areas. Such transplantations allowed Wild Turkeys to spread to all of the lower 48 states (plus Hawaii) and parts of southern Canada.
- > Because of their large size, compact bones, and long-standing popularity as a dinner item, turkeys have a better known fossil record than most other birds. Turkey fossils have been unearthed across the southern United States and Mexico, some of them dating from more than 5 million years ago.
- > When they need to, Turkeys can swim by tucking their wings in close, spreading their tails, and kicking.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male

Very large game bird. Displaying males look almost spherical, with naked, red-and-blue head and fanned tail.



Female

Very large game bird with long neck and legs. Females are dark brown overall with even darker barring.



Female

Often roosts in trees. These heavy birds fly short distances to take cover. Takes flight with a flurry of loud, labored wingbeats.



Male

Male has a relatively small, bare head with blue skin and red wattles.



Female

Very large game bird. Females have bare skin on the head and are dark brown overall, with a coppery sheen to the rump and tail. When open, the wings show white barring.



Female

None



Juvenile

Juveniles can leave the nest upon hatching, but mothers care for their young into the first fall.



Female

None



Habitat

Occurs in woods mixed with open country; often forages by scratching in leaf litter. Females and adult males typically form separate flocks; female flocks can be up to 30 in summer, larger in winter.

Northern Bobwhite

Bird Characteristics

Scientific Name: *Colinus virginianus*

Order: Galliformes

Family Name: Odontophoridae

Conservation Status: Common Bird in Steep Decline

Basic Description: An emphatic, whistled

Nesting Characteristics

Clutch Size: 7-28 eggs

Number of Broods: 1-3 broods

Egg Length: 1.2 in (3 cm)

Egg Width: 1.0 in (2.5 cm)

Incubation Period: 22-24 days

Nestling Period: 1 day

Egg Description: Dull or creamy white.

Condition at Hatching: Active and covered with down, but dependent on parents to stay warm and find food.

Nest Placement: The male and the female jointly choose a nest site on the ground or in low vegetation, usually within 65 feet of an opening such as a field or road.

Nest Description: Both sexes work together to dig a scrape in the ground, about 6 inches across and 2 inches deep, and line it with grass and other dead vegetation. They often weave weeds and grasses into an arch to completely hide the nest from view. Nest building takes about 5 days.

Bird Information

Habitat: Northern Bobwhites are year-round residents in open habitats of southeastern North America. They live in agricultural fields, grasslands, open pine or pine-hardwood forests, and grass-brush rangelands as far north as Massachusetts and southern Ontario, and as far west as southeastern Wyoming and eastern New Mexico. They seem to avoid mature woodlands, inhabiting instead the early stages of regrowth after a fire, farming, logging, or other disturbance. They are most numerous in patchwork areas of fields, forests, and croplands; in coastal Texas rangelands; and in southern pine forests that are intensively managed for bobwhite hunting. During snowfalls in the northern part of their range, bobwhites depend on woody cover to prevent snow from reaching the ground and blocking their foraging habitat.

Food: Bobwhites eat mostly seeds and leaves, supplemented with varying amounts of insects during the breeding season. Chicks are fed mostly insects until they are 6–8 weeks old. Arthropods can make up 5 percent of the male's diet and 20 percent of the female's diet during the breeding season. Bobwhites forage as a group, scratching and pecking through leaf litter or foraging on low plants. When snow falls they seek out patches of bare ground under brushy areas. Their staple food of seeds comes from agricultural crops, weeds, forest plants, and rangeland vegetation. During fall and winter they eat many legume seeds, ragweed seeds, pine seeds, and acorns. In the spring they eat more leafy green parts of plants, and in the summer their diet includes grass seeds, some fruits, and arthropods—such as bugs, flies, bees, wasps, beetles, and spiders.

Behavior: Northern Bobwhites are highly social, usually found in groups, or coveys, of 3–20 individuals. They feed in early morning and late afternoon. At night, coveys usually roost on the ground (or occasionally in vegetation) in a close-packed, outward-facing circle with their tails pointing toward the center, probably to conserve heat and stay on the alert. They coexist peacefully for most of the year, but in the breeding season male bobwhites fight to attract mates. Both males and females perform courtship displays. Originally thought to be monogamous, they actually have several breeding strategies: males can raise broods with multiple females; and females can raise broods with multiple males (although males often abandon such broods). Bobwhites sometimes intermingle their eggs with those of Ring-necked Pheasants and free-range domestic chickens. Hawks, owls, raccoons, opossums, skunks, foxes, and snakes prey on adult bobwhites and their young. Adults flutter and drag their wings to distract predators from their chicks.

Conservation: Northern Bobwhites were once a common species in eastern North America, but experienced widespread, sharp declines between 1966 to 2014, up to 4% per year, resulting in a cumulative decline of 85%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 5.8 million with 84% living in the U.S., and 11% in Mexico. They rate an 11 out of 20 on the Partners in Flight Continental Concern Score. The

Color Pattern: They are intricately patterned in brown, rufous, buff, and black. Males have a bold black-and-white head pattern. Females have a buffy throat and eyebrow.

Fun Facts

-> Because of its history as a game bird, the Northern Bobwhite is one of the most intensively studied bird species in the world. Scientists have researched the impacts of various human activities, from pesticide application to prescribed burning, on both wild and captive bobwhites.

-> Northern Bobwhites are divided into 22 subspecies, some of which were formerly considered to be separate species—such as the Masked Bobwhite, the Rufous-bellied Bobwhite, and the Black-headed Bobwhite. Although the females mostly look alike, the males vary dramatically from one subspecies to the next.

-> Northern Bobwhites were thought to be monogamous until researchers began radio-tracking individuals to follow their activities. It turns out that both male and female bobwhites can have multiple mates in one season.

-> The bobwhite genus is represented by more than 700 known fossils, dug up in sites ranging from Florida to Arizona to the Yucatan Peninsula of Mexico. Some of these fossils are at least 2.5 million years old.

-> The oldest Northern Bobwhite on record was 6 years, 5 months old. They have short life spans but make up for it with prolific breeding abilities. Under good conditions, a bobwhite pair can produce 2 or 3 broods, totaling 25 offspring or more, in a single breeding season.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male (Eastern)

Distinctive small quail with short crest or peak to the head. Strong black-and-white striped face with brown crown and white throat. Rich chestnut upperparts with brown-and-white-scaled underparts.



Female (Eastern)

Small, plump quail striped and speckled overall with black, brown, and white. Females have buffy throat and stripe over the eye.



Male (Masked)

In "Masked" subspecies of southwestern U.S. and Mexico, male has black

head with solid rufous or chestnut underparts.



Male (pectoralis group)
None



Male (graysoni/nigripectus)
None



Female (Eastern)
Small quail usually found on the ground in dense grassy or brushy areas; can be easier to find when they venture onto or cross roads. Females have buffy stripe over eye and throat; may show a short raised crest as males do.



Male (Eastern)
None



Male (Eastern)
Small quail with striking black-and-white face pattern. Usually found in groups on the ground.



Female (Eastern)
Usually found on the ground in dense grassy or shrubby areas.



Male (Eastern)
Small quail with short crest and striking black-and-white face pattern.



Male and female (Eastern)

Usually seen in groups known as coveys that include males, females, and young birds.

Red-throated Loon

Bird Characteristics

Scientific Name: *Gavia stellata*

Order: Gaviiformes

Family Name: Gaviidae

Conservation Status: Low Concern

Length: 25.2-26.8 in (64-68 cm)

Weight: 44.1-86.8 oz (1250-2460 g)

Wingspan: 35.4-36.6 in (90-93 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-2 eggs

Number of Broods: 1 brood

Egg Length: 2.7-3.0 in (6.82-7.67 cm)

Egg Width: 1.7-1.8 in (4.41-4.55 cm)

Incubation Period: 24-31 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Males select the nest site, usually in wetlands at the edge of a shallow, small pond or on a small island in the pond. In the high arctic, they nest on larger ponds. Nests are always built on vegetation, not on rocks.

Nest Description: Both male and female build the nest, either on the shoreline or in shallow water near it. Nests are mounds of moss, decayed vegetation, grasses, sedges, and mud, sometimes lined with dry grass, gathered from the immediate vicinity of the nest and formed with the feet and body. In some cases, no nest material is used, just a depression in the vegetation. Nests average about 18 inches across and about 3 inches above waterline; the

interior depression averages 9.5 inches across and 1.6 inches deep.

Bird Information

Habitat: Red-throated Loons breed in rugged tundra and taiga wetlands in both lowlands and highlands, up to about 3,500 feet elevation. Their ability to spring into flight without first pattering on the water (as other loons have to do) permits them to use small ponds for nesting. They do use larger lakes in places where larger loons are absent. In migration, they fly along ocean shorelines and also along the shores of large lakes (such as the Great Lakes), but their precise migration routes are not known. Foul weather sometimes grounds migrants in places where they would not otherwise land, such as rivers and small lakes in interior North America. Wintering birds are found only in shallower marine waters near land, and in major estuaries and sounds. They are very rarely seen far out to sea.

Food: Red-throated Loons eat a variety of fish, leeches, copepods, crustaceans, mollusks, squid, polychaete worms, and aquatic insects. Among fish they eat herring, capelin, brook trout, stickleback, sculpin, tomcod, arctic char, cod, and sandlance. When breeding, they forage away from nesting areas and nursery ponds, usually in larger lakes and rivers, often in estuaries. Red-throated Loons hunt prey by diving underwater, swimming by kicking with the legs and then grasping prey with the bill. They often locate prey first by dipping their head underwater and looking around as they rest on the water's surface.

Behavior: Red-throated Loons are monogamous, but little is known about the longevity of their bonds or where and how pairs form. Pairs use displays to defend territories (chiefly the nesting pond and nest vicinity) against intruders, including humans. Adults may raise or lower the neck, splash-dive, slap the water with their feet (recalling a beaver tail-slap), to warn intruders, or may rush across the water with wings partly open and head extended, in threat. Pairs are often observed in what researchers call a "plesiosaur posture," in which they raise the body out of the water, extend the neck, raise the wings, and tip the bill downward. A similar display known as the "penguin posture" involves raising the body vertically, stretching out the neck, and pointing the head and bill downward. Males and females perform these displays typically at other Red-throated Loons who intrude on their territory. Both parents tend and feed the young. After the young birds are several weeks old, they sometimes move to a different pond or lake. Adults and young move toward coastlines in preparation for migration, which occurs at least partly at night. Daytime movements of many thousands are often seen along marine coasts. When foraging over the ocean, this species is highly mobile and may dive for prey, much like the Northern Gannet, which occupies a similar niche in winter, though gannets can consume larger prey and forage farther from shore.

Conservation: Red-throated Loons occur across North America, Europe, and eastern Asia.

Color Pattern: None

Fun Facts

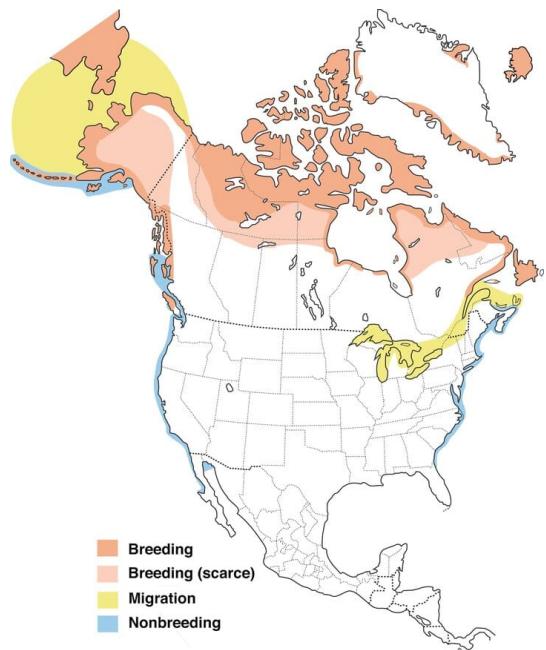
-> The slight Red-throated Loon, unlike other loons, does not need to patter on the water's surface on a long takeoff. It can take flight directly from land if necessary.

-> Birds' digestive tracts have many different ways of handling the difficult-to-digest parts of prey. Owls regurgitate pellets of fur and bones, but loons grind up their food in two digestive organs called the proventriculus and gizzard. The proventriculus starts digesting proteins, and then the gizzard grinds up the hard parts using pea-sized pebbles the loons have swallowed.

-> The Red-throated Loon is the only loon that regularly forages far from its breeding territory, returning from distant lakes or the sea with fish for the young.

-> Unlike other loons, the Red-throated Loon does not carry its young on its back.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Small loon with a long and slender bill often held slightly raised. Breeding adults have a red throat patch and a plain gray head.



Nonbreeding adult

Small loon with a thin bill typically held above horizontal. Nonbreeding birds have more white on the neck and face than other loons.



Immature

Small loon with a thin bill typically held raised. Often sits lower in the water than other loons. Immature birds are pale gray with varying amounts of

white on the face and neck.



Breeding adult

None



Nonbreeding adult

In flight appears hunchbacked.



Nonbreeding adult

Holds bill up and often sits lower in the water than other loons.

Nonbreeding birds have extensive white on the neck and face.



Immature
None



Molting adult
None



Breeding adult and juvenile
None



Nonbreeding adult
Often sits lower in the water than other loons and holds bill upward.



Breeding adult

Breeds in wetlands and bogs on arctic tundra.

Common Loon

Bird Characteristics

Scientific Name: *Gavia immer*

Order: Gaviiformes

Family Name: Gaviidae

Conservation Status: Low Concern

Length: 26.0-35.8 in (66-91 cm)

Weight: 88.2-215.2 oz (2500-6100 g)

Wingspan: 40.9-51.6 in (104-131 cm)

Basic Description: The eerie calls of Common Loons echo across clear lakes of the northern wilderness. Summer adults are regally patterned in black and white. In winter, they are plain gray above and white below, and you'll find them close to shore on most seacoasts and a good many inland reservoirs and lakes. Common Loons are powerful, agile divers that catch small fish in fast underwater chases. They are less suited to land, and typically come ashore only to nest.

Nesting Characteristics

Clutch Size: 1-2 eggs

Number of Broods: 1 brood

Egg Length: 3.5-3.5 in (8.8-9 cm)

Egg Width: 2.2-2.2 in (5.5-5.7 cm)

Incubation Period: 26-29 days

Nestling Period: 2 days

Egg Description: Brown with dark splotches.

Condition at Hatching: Covered with down, sooty black with a white belly. Able to swim and ride on parents' backs within hours of hatching.

Nest Placement: The male selects the nest site. Loons nest in quiet, protected, hidden spots of

lakeshore, typically in the lee of islands or in a sheltered back bay. Loons can't walk well on land, so nests are built close to a bank, often with a steep dropoff that allows the bird to approach the nest from underwater. They also use artificial nesting platforms, which people have offered as alternative habitat on lakes with extensive shoreline development. Many times a nesting pair of loons will reuse the same site the following year, refurbishing their old nest instead of building a new one.

Nest Description: Male and female build the nest together over the course of a week in May or early June, making a mound out of dead plant materials such as sedges and marsh grasses that grow along the lake's edge. Then one of the loons crawls on top of the mound and shapes the interior to the contours of its body. The finished nest is about 22 inches wide and looks like a clump of dead grasses by the edge of the water.

Bird Information

Habitat: Common Loons are a classic bird of the North Woods lakes. They are excellent indicators of water quality as they require crystal-clear lakes (which makes it easier for them to see prey underwater) with abundant populations of small fish. Lakes with coves and islands are preferred as they provide cover from predators while resting and nesting. They also require lakes with enough surface area for their flapping-and-running takeoffs across the water. In their winter range along ocean coasts, they occur fairly close to shore and in bays and estuaries. They are only rarely found more than several miles offshore. Some Common Loons winter inland, on large reservoirs and slow-moving rivers. Common Loons that migrate across interior North America find large lakes and rivers to move between on their way north and south.

Food: Common Loons are expert anglers. Their diet consists of mostly fish, particularly perch and sunfish on their northern lakes. If fish are scarce or water is too murky for fishing, they will catch crustaceans, snails, leeches and even aquatic insect larvae. Though people on the surface only see loons disappear with a dive and reappear with a fish in their bill to be swallowed headfirst, their fishing pursuits underwater are something to behold. Loons shoot through the water like a torpedo, propelled by powerful thrusts of feet located near the rear of their body. When their quarry changes direction, loons can execute an abrupt flip-turn that would make Olympic swimmers jealous: they extend one foot laterally as a pivot brake and kick with the opposite foot to turn 180 degrees in a fraction of a second. In their wintering waters, loons eat smallish fish such as Atlantic croaker. Sometimes they band together in groups to chase schools of Gulf silversides.

Behavior: Common Loons spend a lot of their time working shallow waters for fish: swimming slowly and sticking their heads into the water to look for fish, then diving suddenly after their quarry with a quick plip! that hardly leaves a ripple on the water's surface. Loons do all their feeding during the day, when they can best see their prey. At times, loons can be seen sticking one foot up out of the water and waggling it—this may be a means of cooling off, as scientists have observed loons waggling their feet more often on sunny, midsummer days. Loons also perform a territorial display of lifting their body upright and flapping their wings vigorously. Canoeists who get too close to a loon may witness this display, along with a defensive tremolo

call as the loon swims away. Loons also tremolo when they fly from lake to lake or in circles above a lake, their necks sticking straight out and feet trailing behind them. They can be very vocally active with nocturnal choruses. After sundown, many North Woods lakes reverberate with the echoes of loon wails and yodels and tremolos (which writer John McPhee called “the laugh of the deeply insane”). In spring, loon mates arrive back on their lake separately. Loons are monogamous, and pair bonds typically last about 5 years. If one year one of the mates doesn’t return, the other will quickly pair up with another mate. The male defines his territory through yodeling. Courtship consists of swimming in circles and synchronous dives. If nesting is successful, loon chicks can be seen going for a ride around the lake on a parent’s back.

Conservation: North American Common Loon populations are stable and healthy overall, and between 1966 and 2015 populations remained stable, and slightly increased in the U.S., according to the North American Breeding Bird Survey. The species rates an 11 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: In summer, adults have a black head and bill, a black-and-white spotted back, and a white breast. From September to March, adults are plain gray on the back and head with a white throat. The bill also fades to gray. Juveniles look similar, but with more pronounced scalloping on the back.

Fun Facts

-> The Common Loon swims underwater to catch fish, propelling itself with its feet. It swallows most of its prey underwater. The loon has sharp, rearward-pointing projections on the roof of its mouth and tongue that help it keep a firm hold on slippery fish.

-> Loons are water birds, only going ashore to mate and incubate eggs. Their legs are placed far back on their bodies, allowing efficient swimming but only awkward movement on land.

-> Loons are agile swimmers, but they move pretty fast in the air, too. Migrating loons have been clocked flying at speeds more than 70 mph.

-> A hungry loon family can put away a lot of fish. Biologists estimate that loon parents and their 2 chicks can eat about a half-ton of fish over a 15-week period.

-> Loons are like airplanes in that they need a runway for takeoff. In the case of loons, they need from 30 yards up to a quarter-mile (depending on the wind) for flapping their wings and running across the top of the water in order to gain enough speed for lift-off.

-> Loons are well equipped for their submarine maneuvers to catch fish. Unlike most birds, loons have solid bones that make them less buoyant and better at diving. They can quickly blow air out of their lungs and flatten their feathers to expel air within their plumage, so they can dive quickly and swim fast underwater. Once below the surface, the loon’s heart slows down to conserve oxygen.

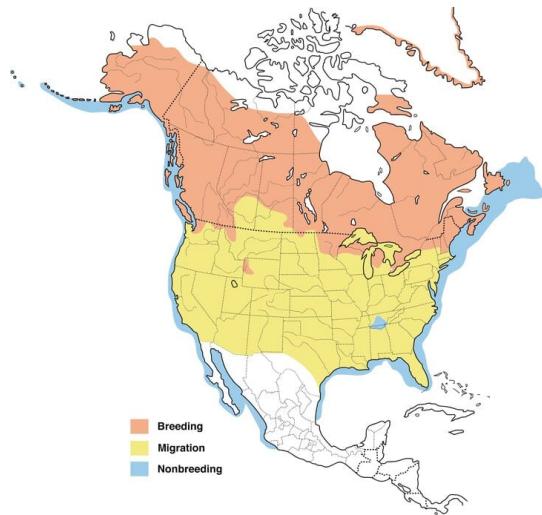
-> Migrating Common Loons occasionally land on wet highways or parking lots, mistaking them for rivers and lakes. They become stranded without a considerable amount of open water for a long takeoff. A loon may also get stranded on a pond that is too small.

-> The Common Loon is flightless for a few weeks after molting all of its wing feathers at the same time in midwinter.

-> Like many young birds, juvenile loons are really on their own after mom and dad leave at about 12 weeks. The parents head off on migration in the fall, leaving juveniles to gather into flocks on northern lakes and make their own journey south a few weeks later. Once the juveniles reach coastal waters on the ocean, they stay there for the next two years. In the third year, young loons return north, although they may not breed for several more years (on average they are six years old when they start breeding).

-> The oldest recorded Common Loon was a female, and at least 29 years old, 10 months old when she was spotted in Michigan in 2016 and identified by her band. She had been banded in the same state in 1989.

Migration Map



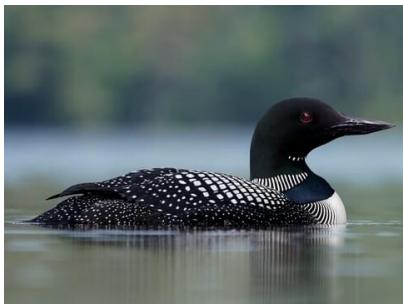
Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Long-bodied waterbird with a hefty bill. Sits low in the water. Breeding birds have a black-and-white striped collar and a checkerboard back.



Nonbreeding adult/immature

Hefty daggerlike bill. Nonbreeding/immature birds often have a pale collar as seen on this bird—a spur of white extending on the dark neck.



Nonbreeding adult/immature

In flight, has a bulky profile with large feet trailing behind.



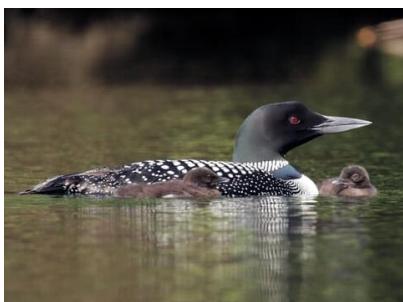
Immature
None



Breeding adult
Large-bodied loon with a hefty bill and flat head. Breeding birds have a black-and-white striped collar and a checkerboard back.



Molting adult
Nonbreeding birds are often brownish above and show a pale partial collar on the neck.



Breeding adult and juvenile
Chicks accompany adults for several weeks and often ride on the back of

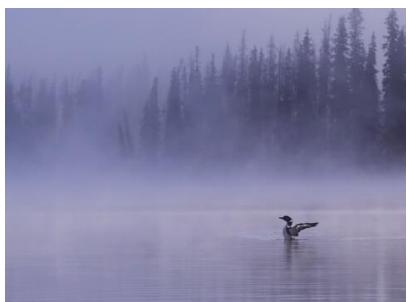
an adult when very young.



Breeding adult
Breeds in freshwater lakes.



Nonbreeding adult/immature
A bulky loon with a hefty bill and a rather flat head.



Habitat
None

Pied-billed Grebe

Bird Characteristics

Scientific Name: *Podilymbus podiceps*

Order: Podicipediformes

Family Name: Podicipedidae

Conservation Status: Low Concern

Length: 11.8-15.0 in (30-38 cm)

Weight: 8.9-20.0 oz (253-568 g)

Wingspan: 17.7-24.4 in (45-62 cm)

Basic Description: Part bird, part submarine, the Pied-billed Grebe is common across much of North America. These small brown birds have unusually thick bills that turn silver and black in summer. These expert divers inhabit sluggish rivers, freshwater marshes, lakes, and estuaries. They use their chunky bills to kill and eat large crustaceans along with a great variety of fish, amphibians, insects, and other invertebrates. Rarely seen in flight and often hidden amid vegetation, Pied-billed Grebes announce their presence with loud, far-reaching calls.

Nesting Characteristics

Clutch Size: 2-10 eggs

Number of Broods: 1-2 broods

Egg Length: 1.5-2.0 in (3.8-5 cm)

Egg Width: 1.1-1.3 in (2.7-3.2 cm)

Incubation Period: 23-27 days

Egg Description: Bluish white to greenish white, rarely turquoise, and unmarked.

Condition at Hatching: Downy and active, the chicks leave the nest soon after hatching and climb onto the adult's back where they are brooded during their first week of life.

Nest Placement: Pied-billed Grebes typically situate their nests among tall emergent vegetation; sometimes they nest among lower-growing plants. Both male and female may take part in selecting the site, favoring locations with water deeper than about 9 inches, which

allows for escape, feeding, and nest platform construction.

Nest Description: Like other grebes, the Pied-billed Grebe creates an open bowl nest on a platform of floating vegetation. The crude circular platform may be placed atop a lily leaf or built up from buoyant material, such as the stems of bulrushes and water lilies. Other added material may include Eurasian water-milfoil, sago pondweed, stonewort, cattails, and small sticks. Both sexes build the nest, and can construct a platform that will support an egg in as little as 1 day. Construction normally starts 3 to 5 days before egg-laying and continues during and after laying. The birds collect soft, flexible, fresh or partly decomposed plant material from beneath the water and clip off stiffer material near the surface. The nest bowl is 4–5 inches in diameter and about an inch deep, and may be expanded during egg-laying period to accommodate additional eggs.

Bird Information

Habitat: Pied-billed Grebes live on bodies of flat or sluggish, fresh to slightly brackish water, at altitudes from sea level to about 8,000 feet. They forage in open water but construct their floating nests using materials and anchors of aquatic vegetation and/or dense stands of emergent vegetation—plants that root underwater with leaves and stems that extend into air. Habitat types include freshwater wetlands, wet fields, bays, sloughs, marshes, lakes, slow-moving rivers, and even sewage ponds. Pied-billed Grebes can nest in moderately to heavily populated areas. They occupy similar habitats during migration and winter.

Food: Pied-billed Grebes eat mostly crustaceans (particularly crayfish) and small fish, which they capture and crush with their stout bills and strong jaws. Overall, these opportunistic feeders consume a great variety of prey items, large and small, depending on what's available. Collecting most of their food underwater during foraging dives, they eat crabs, shrimp, snails, mussels, beetles, dragonfly nymphs, and aquatic insects and their larvae. In some parts of their range, Pied-billed Grebes go after leeches, frogs and tadpoles. Among this grebe's most common fish prey are carp, minnows, catfish, sculpins, killifish, sticklebacks, gizzard shad, and sunfishes. Pied-billed Grebes in the fishless wetlands of Manitoba kill and eat tiger salamanders.

Behavior: Pied-billed Grebes forage in water among aquatic plants and beneath mats of floating vegetation. They usually dive for food, but occasionally pluck insects from foliage, the water's surface, or the air. They sometimes feed near moving herons and egrets. Pied-billed Grebes escape danger by “crash-diving”—plunging with head and tail raised above the belly, making a splash. They can also dive head first, or simply sink quietly out of view, leaving no trace. Parents dive with young clamped under their wings; occasionally a chick accidentally pops out. These grebes often avoid danger by submerging, crocodile-style, with just the eyes and nostrils above the surface. During breeding season, adult Pied-billed Grebes (especially males) chase and attack members of their own species as well as other waterbirds, often attacking from underwater. Courting adults raise their breasts partially out of the water, jerk their heads toward each other and perform pirouettes. In another courtship ceremony, one adult races along just beneath the surface, creating ripples that trace its underwater path. Pied-

billed Grebes need a long running-flapping start to take off from water.

Conservation: Pied-billed Grebes are widespread and fairly common in most of the U.S. and southern Canada, and overall, populations were stable between 1966 and 2014, according to the North American Breeding Bird Survey. However, the North American Waterbird Conservation Plan rates the continental population a 12 out of 20 on the Continental Concern Score, and lists it as a Species of High Concern. Pied-billed Grebe is not on the

Color Pattern: These are brown birds, slightly darker above and more tawny-brown on the underparts. During spring and summer, the crown and nape are dark and the throat is black. While breeding, the bill is whitish with a black band (“pied”), but otherwise is yellow-brown. Juveniles have striped faces.

Fun Facts

-> The Latin genus name for “grebe” means “feet at the buttocks”—an apt descriptor for these birds, whose feet are indeed located near their rear ends. This body plan, a common feature of many diving birds, helps grebes propel themselves through water. Lobed (not webbed) toes further assist with swimming. Pied-billed Grebes pay for their aquatic prowess on land, where they walk awkwardly.

-> Pied-billed Grebe chicks typically leave the nest the first day after hatching and spend much of their first week riding around on a parent’s back. They usually spend most of their first 3 weeks on or near the nest platform.

-> Pied-billed Grebes are fairly poor fliers and typically stay on the water—although rare individuals have managed to fly as far as the Hawaiian Islands, Europe, the Azores, and the Canary Islands.

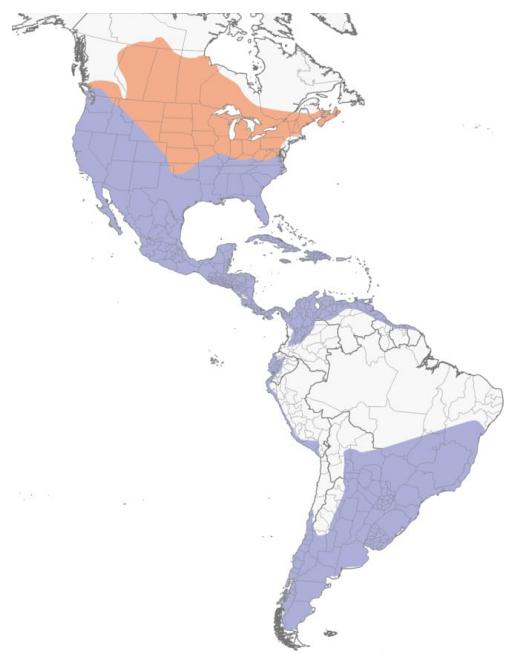
-> Pied-billed Grebes can trap water in their feathers, giving them great control over their buoyancy. They can sink deeply or stay just at or below the surface, exposing as much or as little of the body as they wish. The water-trapping ability may also aid in the pursuit of prey by reducing drag in turbulent water.

-> Like other grebes, the Pied-billed Grebe eats large quantities of its own feathers. Feathers may at times fill up more than half of a grebe’s stomach, and they are sometimes fed to newly hatched chicks. The ingested plumage appears to form a sieve-like plug that prevents hard, potentially harmful prey parts from passing into the intestine, and it helps form indigestible items into pellets which they can regurgitate.

-> When in danger, Pied-billed Grebes sometimes make a dramatic “crash-dive” to get away. A crash-diving grebe pushes its body down with its wings thrust outward. Its tail and head disappears last, while the bird kicks water several feet into the air.

-> The longest-lived Pied-billed Grebe on record was at least 4 years, 7 months old and lived in California.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Small, chunky waterbird with a blocky head, short, thick bill, and almost no tail. Breeding birds have a vertical black stripe on the bill.



Nonbreeding adult/immature

Small waterbird with a short, thick bill and almost no tail. Nonbreeding birds have a brownish neck and lack the black bill stripe.



Juvenile

Juveniles have striped faces.



Breeding adult

Can adjust their buoyancy to float with just the upper half of the head above the water.



Nonbreeding adult/immature

They have lobed feet to help propel them underwater.



Nonbreeding adult/immature

Some nonbreeding birds have more cinnamon coloring on the neck.



Nonbreeding adult/immature

None



Breeding adult
None



Breeding adult
Breeds in quiet ponds and marshes with wetland vegetation.



Breeding adult and juvenile
Forages in slow moving waters with aquatic vegetation. Juveniles accompany adults for several weeks.

Red-necked Grebe

Bird Characteristics

Scientific Name: *Podiceps grisegena*

Order: Podicipediformes

Family Name: Podicipedidae

Conservation Status: Low Concern

Length: 16.9-22.1 in (43-56 cm)

Weight: 28.2-56.4 oz (800-1600 g)

Wingspan: 24.0-34.6 in (61-88 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-9 eggs

Egg Description: Light blue.

Condition at Hatching: Downy and active; chicks immediately climb onto parent's back, where they spend most of their time until they are 10 to 17 days old.

Nest Placement: Nests are set near or on sheltered lakeshores, in emergent or floating aquatic vegetation. Most pairs also build additional nestlike structures for copulation.

Nest Description: Male and female both build the nest, a bulky pile of aquatic plants that is anchored to emergent plants or piled directly on the lake bottom and built up. Most of the nest mound lies underwater. The central portion above water is lower than the edges, to contain the eggs. Nests average about 44 inches across, with a depression of about 6 inches across and 1.6 inches deep.

Bird Information

Habitat: In North America, Red-necked Grebes breed chiefly in Canada and Alaska, mostly on shallow freshwater lakes in lowland areas, especially sheltered areas that have some marsh vegetation around the edges and little disturbance or human activity. Some pairs nest in small lakes, bogs, and ponds or even in large ditches or borrow pits, and some nest in wetlands of

montane valleys at higher elevations. Migrants may show up on almost any body of water inland in spring or fall, though most appear on larger lakes. Wintering birds frequent mostly cold, shallow waters along ocean coastlines. Along coasts, they tend to forage more actively during higher tides. On several occasions during very cold winters, when the Great Lakes have frozen over completely, large numbers of Red-necked Grebes have appeared across eastern North America in interior locations where they're not normally observed.

Food: Red-necked Grebes feed mostly on fish and crustaceans, along with some insects. They hunt visually in relatively clear water, from the top of the water to the bottom, if they can reach it. Sometimes, like loons, they submerge their heads partially while floating, scanning for prey, which they capture by diving and then grasping rapidly with the bill. They swallow small fish whole, headfirst, usually while still underwater. When they catch larger fish or crustaceans, Red-necked Grebes normally return to the water's surface and prepare for swallowing the prey item by shaking and biting it. During winter, they eat fish and occasionally shrimp. When nesting, they consume almost any sort of aquatic animal or insect available, including smaller fish, salamanders, frogs (including tadpoles), amphipods, leeches, crayfish, small clams, damselflies, dragonflies, spiders, and many sorts of aquatic beetles and flies.

Behavior: Red-necked Grebes feed by diving, then swimming beneath the water to capture prey with the bill. While resting, they often preen their plumage, sometimes swallowing the small feathers from their flanks. Red-necked Grebes form monogamous pairs, usually during stopovers on spring migration (possibly earlier), as they begin to molt into breeding plumage and commence courtship. Most arrive at breeding lakes already mated and continue their ritualized displays, called "ceremonies," which maintain the pair bond. As with other grebes, each ceremony involves a series of stereotyped postures and movements, executed in a specific sequence. These are called the discovery ceremony, weed ceremony, and greeting ceremony. More than other grebes in the genus

Conservation: Red-necked Grebes are fairly common. Populations were stable between 1968 and 2015 and grew by an estimated 3.7% per year in the last decade of that period, according to the

Color Pattern: None

Fun Facts

-> Red-necked Grebes winter mostly in northern climes, but wandering birds have reached Bermuda and the Hawaiian Islands.

-> In 1989, birders organized a study of autumn migration at Whitefish Point, Michigan, on Lake Superior. They were surprised to discover that a large migration of Red-necked Grebes passed by there during the daytime. Most scientists had assumed that this species migrated at night like many other grebe species. Whitefish Point Bird Observatory has documented over 21,000 Red-necked Grebes in a single season at their lake watch.

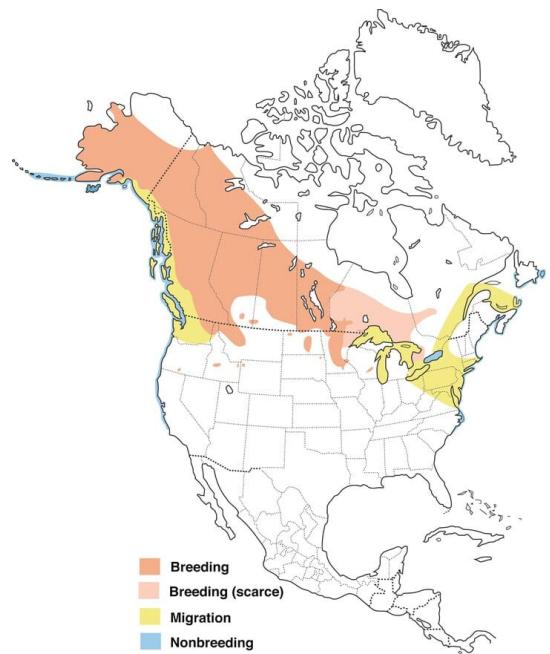
-> Like other grebes, the Red-necked Grebe ingests large quantities of its own feathers. The

stomach retains two distinct masses (balls) of feathers, and their function is unknown. One hypothesis suggests that the feathers help protect the lower digestive tract from bones and other hard, indigestible material. The Red-necked Grebe also feeds its feathers to its young.

-> The Red-necked Grebe migrates over land strictly at night. It sometimes migrates over water or along coasts by day, in large flocks.

-> The oldest recorded Red-necked Grebe was at least 11 years old when it was found in Minnesota, the same state where it had been banded.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Large grebe with long neck and fairly stout, straight bill. Breeding adults have a black cap ending sharply at gray-white cheeks and a chestnut-red neck. Note eye is not red.



Nonbreeding adult/immature

Large grebe with long neck and fairly large bill. Solid black cap with clean gray-white cheeks contrasting with darker gray "ear" patch. Often holds bill pointing downward. Eye is not red.



Immature

Large grebe with fairly stout, straight, yellowish bill. In flight, neck is long; white patch on leading edge of wings near shoulder. Immatures are washed grayish with darker crown.



Juvenile

Fairly large grebe with yellowish bill. Juveniles have striped faces and reddish chestnut necks.



Breeding adult

Breeds on shallow freshwater lakes and marshes. Like other grebes, pairs perform several types of displays, beginning on the wintering grounds and continuing through migration.



Immature

None



Molting adult

None



Adult and chick

None



Nonbreeding adult/immature

At distance, partially submerged body can appear small. Bill is yellowish with black cap and white cheeks. Winters along seacoasts.

Laysan Albatross

Bird Characteristics

Scientific Name: *Phoebastria immutabilis*

Order: Procellariiformes

Family Name: Diomedeidae

Conservation Status: Restricted Range

Length: 31.1-31.9 in (79-81 cm)

Weight: 77.6-151.7 oz (2200-4300 g)

Wingspan: 76.8-79.9 in (195-203 cm)

Basic Description: One of the most marvelous sights in the Pacific ocean is the graceful glide of a Laysan Albatross at play among the winds and waves. These expert soarers can travel hundreds of miles per day with barely a wingbeat. They nest on islands of the tropical Pacific, but they may head out to Japan, the Aleutian Islands, or California to feed. Laysan Albatrosses are numerous, though they face threats from longline fishing, plastic trash in the ocean, and predation by dogs, rats, and cats.

Nesting Characteristics

Clutch Size: 1 egg

Number of Broods: 1 brood

Egg Length: 4.3 in (10.8 cm)

Egg Width: 2.7 in (6.9 cm)

Incubation Period: 62-66 days

Nestling Period: 165 days

Egg Description: Creamy white with brown spotting.

Condition at Hatching: Covered in gray-white down giving a salt-and-pepper appearance; eyes are open; weighing about 7 ounces.

Nest Placement: Females place their nests on sparsely vegetated ground, typically close to a

small shrub if available.

Nest Description: On sandy islands such as Midway and Laysan, the female lies in the sand and scrapes out a hollow with her feet. By rotating around, she forms a circular depression, then gives the nest a low rim by assembling twigs, leaves, and sand picked up from the immediate area around the nest. On larger islands such as Kauai, Hawaii, the birds nest more often on grass or under trees and build the nest rim from leaf litter, ironwood needles, and twigs. The nest (including rim) is about 3 feet in diameter and a couple of inches deep. Often the female continues nest construction while incubation is under way.

Bird Information

Habitat: Laysan Albatrosses range across the northern Pacific Ocean from about the latitude of Costa Rica to the Aleutian Islands and southern Bering Sea. They tend to forage in colder, food-rich waters, although they have been found in waters ranging from about 35°F to 79°F. The birds nest on open, grassy or sandy expanses of islands—particularly Midway Atoll and Laysan Island (which together account for about 94 percent of breeding pairs), other small Hawaiian Islands, the larger islands of Kauai and Oahu, and a few sites off Mexico and Japan.

Food: Laysan Albatrosses eat mainly squid as well as fish eggs, crustaceans, floating carrion, and some discards from fishing boats. They feed by sitting on the water and plunging with their beaks to seize prey near the surface. Adults with chicks to feed take foraging trips that last up to 17 days and travel 1,600 miles away from their nest (straight-line distance).

Behavior: The classic behavior of albatrosses is dynamic soaring—a flight style marked by very infrequent wingbeats and masterful soaring. The bird takes advantage of wind speed and direction changes at different heights to fly great distances with very slight alterations of their wing position. On the ground these big birds walk ponderously and usually have to run along the ground, into the wind, to be able to take off. Pairs tend to form lasting bonds. They return to the colony beginning in November, where they perform elaborate courtship displays. These include coordinated movements in which the birds touch bills, spread one or both wings, bob their heads, place their bill under one wing, and pause with their bill pointed at the sky. After mating, both birds leave the island, with the female returning first to lay a single egg. It can take up to a decade for a young albatross to successfully reproduce: 1-year-olds usually don't return to the colony at all; 3- and 4-year-olds return to attempt breeding but usually are not successful until they are 9 or 10. They often breed in colonies alongside Black-footed Albatrosses. Introduced dogs, cats, rats, and mongoose threaten eggs, nestlings, and adult birds; on the water they are vulnerable to tiger sharks.

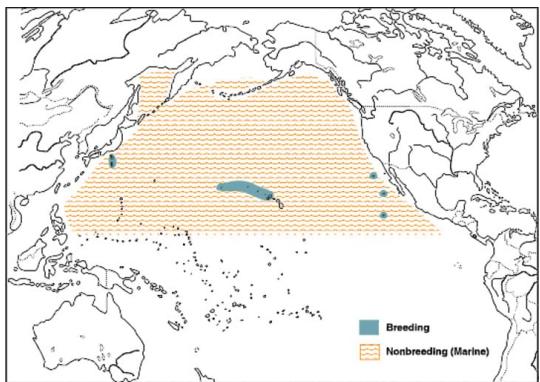
Conservation: Laysan Albatrosses are numerous, but as with all albatross species there are serious threats to their population, and this species is on the

Color Pattern: Laysan Albatrosses are white-headed birds with dark gray-brown upperwings and mostly white underwings (with variable dark markings). The underparts are clean white. They have a dark patch around the eye. In flight, note the dark back, white rump, and dark tail.

Fun Facts

- > Laysan Albatrosses are masterful soarers, able to fly great distances and through the fiercest storms while barely even flapping their wings. To a large extent, the faster the wind blows the more maneuverable they are.
- > One Laysan Albatross found its way back to Midway Island from the Philippines—a journey of 4,120 miles. Another made its way back to Midway from Washington state traveling at an average of almost 350 miles per day.
- > Ever heard of a “tubenose” before? That’s the term birders and biologists use to describe albatrosses and their relatives (petrels, shearwaters, fulmars, and storm-petrels). These birds have a pair of bony tubes above or inside the bill that excrete salt—allowing these ocean-going birds to drink seawater without becoming dehydrated.
- > When the wind is calm, albatrosses have trouble taking off. They typically need to face into the wind and run along the ground or water’s surface, wings spread, to take off; or to launch themselves from a high point.
- > The Laysan Albatross gets its name from its Laysan breeding colony in the Northwestern Hawaiian Islands, where it is the second most common seabird.
- > Albatrosses’ amazing size and graceful flight led sailors to regard them as good luck. In Samuel Taylor Coleridge’s epic poem
- > You can also help albatrosses by reducing your use of plastics and making sure plastic litter goes into garbage cans. Discarded plastic ends up in the oceans, where albatrosses pick it up and eat it or feed it to their chicks.
- > You can help albatrosses by avoiding unsustainably caught seafood. This includes fish caught by
- > Laysan Albatrosses live very long lives. They usually don’t start breeding successfully until they are 8 or 9. The oldest known individual was 65 years old, when she was identified in 2016 by the band on her leg while she was at her nest.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult/immature

Very large seabird with narrow, pointed wings. Long, thick, hooked bill is pale. Head and rump white, with dark tail and dark shading on the face.



Adult/immature

Very large seabird with narrow, pointed wings and distinctive looping flight style; rarely flaps wings. Underwings are patchy white with variable amounts of dark. Grayish smudge on face.



Adult/immature

Forages at sea, either by landing and dabbling, or by picking food items

from the surface in flight. Note all-brown back and grayish wash on face.



Juvenile

Chicks are wispy brown with pale or blond highlights and a dark bill. Laysan Albatrosses nest among short vegetation, mainly in the remote Northwest Hawaiian Islands; also small colonies on Kauai and Oahu and on a few Mexican Islands.



Juvenile

Older chicks tend to retain fuzzy brown head and neck down while molting into flight feathers before fledging.



Adults/immatures with Northern Fulmars and orca

Spends most of the year at sea, sometimes in flocks especially around

fishing boats. More likely to sit on the sea surface during calm winds when dynamic soaring is more difficult.



Adult/immature

Spends most of the year on the open ocean. Characteristic looping flight style takes advantage of prevailing winds to fly while rarely flapping wings.

Northern Fulmar

Bird Characteristics

Scientific Name: *Fulmarus glacialis*

Order: Procellariiformes

Family Name: Procellariidae

Conservation Status: Low Concern

Length: 15.3-19.7 in (39-50 cm)

Weight: 15.9-35.3 oz (450-1000 g)

Wingspan: 39.4-44.1 in (100-112 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1 egg

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Typically nests on rocky or grassy cliffs. In the British Isles, the species has nested on sand dunes, stone walls, rooftops, and even treetops.

Nest Description: Nests are little more than a depression in rock, sand, or soil, lined occasionally with a few pebbles or bits of vegetation. Nests measure about 7.5 inches across and 1.4 inches deep.

Bird Information

Habitat: Northern Fulmars live most of their lives in the open ocean. They nest in colonies on cliffs scattered around the North Atlantic, North Pacific, and Arctic Oceans. In the United States, the species breeds only in Alaska, on the Pribilof Islands and the islands of Semidi, Chagulak, Hall, and Saint Matthew. In western Canada, Triangle Island, British Columbia, has a small colony. In eastern Canada, colonies are mostly in the Arctic, with smaller colonies also in Newfoundland and Labrador. During the nonbreeding season, fulmars disperse widely from the edge of pack ice south to about 35° north latitude, and in smaller numbers south of this

latitude as well. In the vast expanses of ocean, they forage wherever prey is most concentrated, typically at the edge of sea ice, in current convergences and upwellings, and over the continental slope and seamounts. They're rarely seen from land, except at premier seawatching sites such as Andrews Point (Cape Ann) and Race Point (Cape Cod), Massachusetts.

Food: Northern Fulmars eat fish, squid, and small crustaceans, which they capture with the sharp-edged, hooked bill at the sea surface or just below it, in a shallow dive or sometimes in underwater pursuit. They gather in large numbers around fishing and whaling vessels, eating scraps of whatever garbage, offal, or bycatch might come their way. They follow feeding whales, whose foraging activities often send prey items to the surface, and they also feed on carcasses of dead marine mammals they find at sea. They feed at sea during both day and night. Among their known fish prey are Arctic cod, Atlantic cod, Alaska pollock, Atlantic pollock, Atlantic herring, capelin, and multiple species of lanternfish, rockfish, and sandlance. Also known in their diet are 15 species of squid, several species of octopus and cuttlefish, small crustaceans (amphipods, copepods, mysids, decapods, euphausiids, isopods, and cumaceans), sea slugs (pteropods), bristleworms (polychaetes), ctenophores, and many types of jellyfish.

Behavior: Northern Fulmars are monogamous and mate for life—and they can live about 60 years. They are famously faithful to their nest sites as well: one study found that more than 99% of birds returned to the previous season's nest site with the same mate. They nest in colonies ranging from a few pairs to many thousands, and their nests may be just a few feet apart. When a pair returns to its nest cliff in spring, male and female display to one another by stretching out their necks and wagging their heads back and forth rhythmically, giving a cackling call. They also preen one another. They gather at the nest site and mate often, and males fend off any rival males at this time. The pair then departs the nest site for several weeks, during which time the female eats well, to obtain enough calcium to produce her single egg. The male usually begins incubation as soon as the female lays her egg, so she can return to sea to feed and regain strength. The parents take turns traveling to sea and provisioning the chick, which leaves the nest cliff soon after fledging. Fulmar parents generally forage in the vicinity of their colonies but sometimes travel more than 600 miles round trip to procure food for the nestling. After the nesting season, fulmars, disperse toward traditionally productive foraging grounds and spend the rest of the year on the open ocean. Because their prey resources shift during the nonbreeding season, the birds must move around quite a bit to stay nourished.

Conservation: Northern Fulmar populations worldwide have increased over the past 50 years or more.

Color Pattern: None

Fun Facts

-> Before the 1800s, only 1 or 2 Northern Fulmar colonies existed in Iceland, and none off the Faeroes or the British Isles. Now, hundreds of colonies occur across all these islands. It's been suggested that humans helped spur this population explosion, by providing food in the form of whale carcasses and fishing discards.

-> When nesting, fulmars generally forage in the vicinity of their colonies but sometimes travel more than 600 miles round trip to procure food for the nestling.

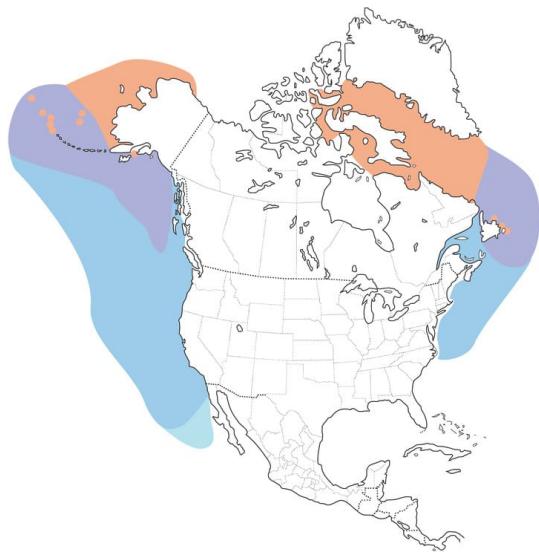
-> The Northern Fulmar can dive as deep as 10 feet underwater.

-> When threatened, Northern Fulmars have an effective defense: a vile-smelling stomach liquid that the birds can spray out of their mouths for several yards—a good reason to keep your distance from nesting birds!

-> Northern Fulmars begin breeding at an exceptionally old age. Most do not breed until they are at least 8 to 10 years old; one study found an individual that started breeding at age 20.

-> The Northern Fulmar is one of the longest-lived birds, with adults regularly living into their 30s. In Scotland, several Northern Fulmars banded as adults in 1951 were still breeding in 1990, probably in their 50s.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Light morph

Stocky gull-like seabird with a thick neck and a bull-headed appearance. Flies like a tank with stiff wingbeats. Varies in color from dark gray to nearly white. Note gray rump and tail on light morph birds.



Dark morph

Stocky gull-like seabird that flies on outstretched stiff wings. This bird is darker gray than other light morph birds in the Atlantic.



Dark morph

None



Dark morph

Stocky gull-like seabird with a thick neck, bull-headed appearance, and a pale stubby bill. Varies in color from dark gray to nearly white.



Light morph

This light morph bird is white overall with gray wings and darker gray wingtips. Often rests on the water with other Northern Fulmars.



Light morph

Breeds on steep sea cliffs. Spends the winters at sea from ice-covered northern waters to temperate zones.

American White Pelican

Bird Characteristics

Scientific Name: *Pelecanus erythrorhynchos*

Order: Pelecaniformes

Family Name: Pelecanidae

Conservation Status: Low Concern

Length: 50.0-65.0 in (127-165 cm)

Weight: 158.7-317.5 oz (4500-9000 g)

Wingspan: 96.1-114.2 in (244-290 cm)

Basic Description: One of the largest North American birds, the American White Pelican is majestic in the air. The birds soar with incredible steadiness on broad, white-and-black wings. Their large heads and huge, heavy bills give them a prehistoric look. On the water they dip their pouched bills to scoop up fish, or tip-up like an oversized dabbling duck. Sometimes, groups of pelicans work together to herd fish into the shallows for easy feeding. Look for them on inland lakes in summer and near coastlines in winter.

Nesting Characteristics

Egg Length: 3.3-3.7 in (8.3-9.5 cm)

Egg Width: 2.0-2.2 in (5.2-5.5 cm)

Nestling Period: 63-70 days

Egg Description: Uniform chalky white, rough to the touch, becoming smooth and discolored over time.

Condition at Hatching: Naked and helpless, with an orange body and grayish white pouch and bill, unable to walk.

Nest Placement: The pair chooses a relatively flat nest site on gravel, sand, or soil near other pelicans at the same stage of the breeding cycle. In southern, drier regions, they nest amongst sparse vegetation. In forested regions, sites may be under shrubs or trees.

Nest Description: Both sexes use their bills to rake up surrounding gravel, sand, or soil to create a shallow depression roughly 2 feet across with a rim usually no more than 8 inches

high. Occasionally they dig into the bottom of the site as well and may include nearby vegetation, though neither of the pair leaves the site to gather material. Because of trampling, by the end of the nesting season, the broad cup is usually 2 inches deep at most.

Bird Information

Habitat: American White Pelicans breed mainly on isolated islands in freshwater lakes or, in the northern Great Plains, on ephemeral islands in shallow wetlands. They forage in shallow water on inland marshes, along lake or river edges, and in wetlands, commonly 30 miles or more from their nesting islands. Where late summer temperatures bring sunning fish near the surface, these pelicans can forage on deeper lakes. During migrations, they stop in similar habitats to forage and rest. Catfish aquaculture farms in the Mississippi Delta have become increasingly popular spring migration stops for more easterly migrating flocks. In the winter, they favor coastal bays, inlets, estuaries, and sloughs where they can forage in shallow water and rest on exposed spots like sandbars. They rarely winter inland, though the Salton Sea in Southern California is a regular exception. Other inland sites may include large rivers where moving water prevents surface ice, including stretches below dams.

Food: American White Pelicans eat mostly small fish that occur in shallow wetlands, such as minnows, carp, and suckers. Schooling fish smaller than one half their bill length predominate, though they will take sluggish bottom feeders, salamanders, tadpoles, and crayfish. They may also take deeper water fish like tui chub that spawn in the shallows. Because they are opportunistic, their diet changes with water levels and prey species abundance. In some areas of the Great Plains, salamanders and crayfish can predominate in the pelicans' diet. These birds can take game fish like cutthroat trout during spawning runs when locally available. Their prey is usually of little commercial value, although catfish aquaculture ponds in the Mississippi Delta have become an increasingly favored food source in recent years, especially during spring migrations.

Behavior: These large, gregarious birds often travel and forage in large flocks, sometimes traveling long distances in V-formations. They soar gracefully on very broad, stable wings, high into the sky in and between thermals. On the ground they are ungainly, with an awkward, rolling, but surprisingly quick walk. Their webbed feet make for water-ski landings and strong swimming. They forage by swimming on the surface, dipping their bills to scoop up fish, then raising their bills to drain water and swallow their prey. They also forage cooperatively: groups of birds dip their bills and flap their wings to drive fish toward shore, corralling prey for highly efficient, synchronized, bill-dipping feasts. Pairs court in circling flights and in strutting, bowing, and jabbing displays at a chosen nest sites. Though females lay two eggs, only one chick per nest usually survives—one harasses or kills the other (a behavior known as siblicide). At 2 to 3 weeks old, chicks leave their nests and form into groups called crèches. Parents continue to forage for them, returning to the creche and searching out their young to feed them. Pelicans respond to threats by flying aggressively into a near-stall or, on land, adopting an upright posture and grunting. More severe threats from aerial predators provoke open-billed displays where the pelican lunges forward, jabbing with its enormous bill. Predators include foxes, coyotes, gulls, ravens, Great Horned Owls, and Bald Eagles.

Conservation: Populations of American White Pelicans have rebounded from lows in the mid-twentieth century and have grown at roughly 5 percent per year between 1966 and 2014, resulting in a tenfold increase, according to the North American Breeding Bird Survey. Waterbird Conservation for the Americas estimates a global breeding population in excess of 120,000. The species rates an 11 out of 20 on the Continental Concern Score and is assigned a status of Moderate Concern. They are not on the

Color Pattern: Adult American White Pelicans are snowy white with black flight feathers visible only when the wings are spread. A small patch of ornamental feathers on the chest can become yellow in spring. The bill and legs are yellow-orange. Immatures are mostly white as well, but the head, neck, and back are variably dusky.

Fun Facts

-> In

-> American White Pelicans cooperate when feeding. Sometimes, large groups gather in wetlands. They coordinate their swimming to drive schooling fish toward the shallows. The pelicans can then easily scoop up these corralled fish from the water.

-> American White Pelicans must provide roughly 150 pounds of food to nourish a chick from its birth to the time it's ready to forage on its own.

-> Contrary to cartoon portrayals and common misconceptions, pelicans never carry food in their bill pouches. They use them to scoop up food but swallow their catch before flying off.

-> Pelicans are skillful food thieves. They steal from other pelicans trying to swallow large fish and are successful about one-third of the time. They also try to steal prey from Double-crested Cormorants that are bringing fish to the surface. In their dense nesting colonies, some birds even steal the food that a parent on an adjacent nest has disgorged for its young.

-> Pelican chicks can crawl by 1 to 2 weeks of age. By 3 weeks they can walk with their body off the ground and can swim as soon as they can get to water. Older chicks move up to running, then running with flapping their wings, and by the age of 9 to 10 weeks, they can fly.

-> They forage almost exclusively by day on their wintering grounds, but during breeding season, they commonly forage at night. Even though it's hard to see, nighttime foraging tends to result in larger fish being caught than during the daytime.

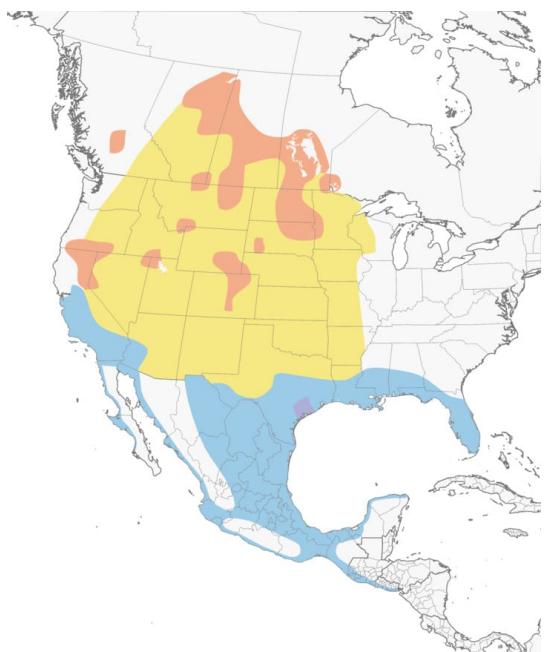
-> American White Pelicans and Double-crested Cormorants are often found together. They sometimes forage together (though they mainly hunt different fish and at different depths). Cormorants even nest individually or in groups within pelican colonies.

-> Pelicans are big birds that can overheat when they're out in the hot sun. They shed heat by facing away from the sun and fluttering their bill pouches—which contain many blood vessels to let body heat escape. Incubating parents may also stretch their wings wide to aid cooling.

-> American White Pelican embryos squawk before hatching to express discomfort if conditions get too hot or cold.

-> The oldest known American White Pelican at least 23 years, 6 months old and was banded in North Dakota in 1983.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Huge snow-white waterbird with a long neck, and a massive bill. A yellow plate forms on the upper bill of breeding adults.



Breeding adult

Huge snow-white waterbird with a long neck, and a massive bill. A yellow plate forms on the upper bill of breeding adults.



Nonbreeding adult

Large waterbird with a long yellow bill with an extendable pouch used to scoop fish out of the water.



Breeding adult

Large but graceful flyer with black flight feathers and a white body.



Breeding adult

Soars gracefully on very broad, stable wings. Often soars using thermals.



Flock

Often travels and forages in large flocks, sometimes traveling long distances in V-formations.



Flock

Frequently seen in groups whether it be loafing, migrating, or foraging.



Habitat

Typically breeds on islands in shallow wetlands in the interior of the continent. They spend winters on coastal waters, bays, and estuaries.

American Bittern

Bird Characteristics

Scientific Name: *Botaurus lentiginosus*

Order: Pelecaniformes

Family Name: Ardeidae

Conservation Status: Low Concern

Length: 23.6-33.5 in (60-85 cm)

Weight: 13.1-17.6 oz (370-500 g)

Wingspan: 36.2 in (92 cm)

Basic Description: You'll need sharp eyes to catch sight of an American Bittern. This streaky, brown and buff heron can materialize among the reeds, and disappear as quickly, especially when striking a concealment pose with neck stretched and bill pointed skyward. These stealthy carnivores stand motionless amid tall marsh vegetation, or patiently stalk fish, frogs, and insects. They are at their most noticeable in spring, when the marshes resound with their odd booming calls that sounds like the gulps of a thirsty giant.

Nesting Characteristics

Clutch Size: 2-7 eggs

Incubation Period: 24-28 days

Nestling Period: 7-14 days

Egg Description: Beige-brown to olive; unmarked.

Condition at Hatching: Helpless, covered with yellow-green down; pinkish-tan black-tipped bill; pink mouth, light olive eyes.

Nest Placement: American Bitterns usually build their nests among thick stands of cattails, bulrushes, and sedges that grow out of shallow water. Less commonly, they nest on dry ground, in grassland areas dense with tall herbaceous plants. Limited research suggests that the females choose the nest sites.

Nest Description: The female American Bittern gathers materials, builds the nest, incubates eggs, broods, and feeds chicks with no apparent assistance from the male. She builds a

mound or platform about 3.5 to 8 inches above the water's surface, using dead, dry reeds, sedges, cattails, or other vegetation, and lines the nest with fine grasses. The nest's outside diameter ranges from about 10 to 15 inches.

Bird Information

Habitat: American Bitterns breed mainly in freshwater marshes with tall vegetation. You can find them in wetlands of many sizes and kinds, typically less densely vegetated and shallower than wetlands used by the Least Bittern. In winter they move to areas where water bodies don't freeze, especially near the coast, where they occasionally use brackish marshes. Managed wetlands such as wildlife refuges seem to be important for wintering American Bitterns. Wintering birds may also forage in dry grasslands and other terrestrial habitats.

Food: American Bitterns eat insects, crustaceans, fish, amphibians, reptiles, and small mammals. Their most common insect prey include water striders, giant water bugs, water beetles, water scorpions, grasshoppers, and especially dragonflies, which the birds sometimes manage to capture in midair. Frequently consumed fish include eels, catfish, pickerel, sunfish, suckers, perch, killifish, and sticklebacks. Rayfish, crabs, frogs, tadpoles, salamanders, garter snakes, water snakes, and meadow voles round out the diet. American Bitterns usually forage in dim light, at shorelines and the fringes of vegetated areas. A foraging bird may sway its neck, perhaps to see past glare from the surface of shallow water, or to warm up its muscles for a quick strike. A characteristic strategy is to stand stock-still with bill held horizontal, gradually aiming the bill downward with nearly imperceptible movements—until, with a sudden darting motion, the bittern seizes the prey in its bill, bites or shakes it to death, and swallows it head first. Indigestible parts of prey animals are regurgitated as pellets.

Behavior: American Bitterns are solitary foragers, standing motionless or walking slowly with outspread toes in search of food. They hunt during the day and especially at dawn and dusk. Possibly the most famous aspect of bittern behavior is the stance it assumes when it perceives a threat. It points its bill skyward, elongates its body, and even sways with the breeze, all to blend in with its reedy surroundings. This pose is so ingrained that bitterns sometimes adopt it even when they're out in the open. American Bitterns don't do much socializing apart from migrating in small groups, mating, and facing off over territories—which can be dramatic. Competing males hunker down and approach each other while displaying white plumes between their shoulders. This can escalate into an airborne chase, with the combatants spiraling upwards, trying to stab each other with their bills. A male about to copulate lowers and pumps his head, and fluffs the white feathers that usually lie concealed beneath his wings. Copulation lasts about 15 seconds. Males and females have little to do with each other apart from copulation, although a female may nest near a "booming" male as a way of distracting predators from her brood.

Conservation: American Bitterns are fairly common, but their numbers are declining in some regions of the U.S. and Canada, according to the North American Breeding Bird Survey. The survey estimates a decline in U.S. populations by about 43% between 1966 and 2015. The species rates a 12 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: American Bitterns are mostly warm brown, buff, and white. They are strongly streaked, especially on the neck, and they can be very hard to see against marsh vegetation. In flight the dark outer wings contrast sharply with the brown of the rest of the bird.

Fun Facts

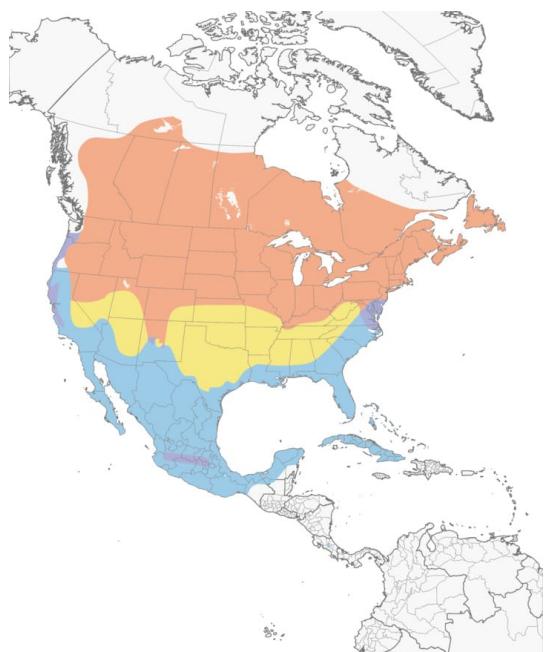
-> American Bitterns are heard more often than seen. Their booming, clacking, gulping calls have earned them some colorful nicknames, including "stake-driver," "thunder-pumper," "water-belcher," and "mire-drum."

-> When field scientists want to trap American Bitterns for study, they take advantage of the males' aggressive territoriality. Knowing that the birds will respond to other males' calls from as far as 1,600 feet away, or to the image of another male, the researchers use recorded calls and mirrors to draw the birds in.

-> The American Bittern's yellow eyes can focus downward, giving the bird's face a comically startled, cross-eyed appearance. This visual orientation presumably enhances the bird's ability to spot and capture prey. The eyes turn orange during breeding season.

-> The oldest recorded American Bittern was over 8 years 4 months old, when it was found in Ontario where it had been banded as an adult 8 years previously.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult/immature

Medium-sized heron with a long, thick neck and long, pointed bill. Well camouflaged: buffy and brown, with vertical brown stripes on its neck.



Adult

Medium-sized heron with a long, thick neck and long, pointed bill. Note long, black patch that extends from below the eye down the side of the neck.



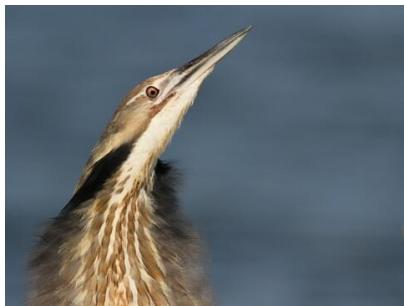
Adult

In flight note dark flight feathers, pale coverts, and hunchbacked look.



Adult

Tucks head into a hunch and slowly lifts its feet with toes spread as it walks slowly through open areas in wetlands.



Adult

Note white throat and long, black patch of feathers that extends from below the eye down the side of the neck.



Habitat

None

Great Blue Heron

Bird Characteristics

Scientific Name: *Ardea herodias*

Order: Pelecaniformes

Family Name: Ardeidae

Conservation Status: Low Concern

Length: 38.2-53.9 in (97-137 cm)

Weight: 74.1-88.2 oz (2100-2500 g)

Wingspan: 65.8-79.1 in (167-201 cm)

Basic Description: Whether poised at a river bend or cruising the coastline with slow, deep wingbeats, the Great Blue Heron is a majestic sight. This stately heron with its subtle blue-gray plumage often stands motionless as it scans for prey or wades belly deep with long, deliberate steps. They may move slowly, but Great Blue Herons can strike like lightning to grab a fish or snap up a gopher. In flight, look for this widespread heron's tucked-in neck and long legs trailing out behind.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-2 broods

Egg Length: 2.4-3.0 in (6.1-7.6 cm)

Egg Width: 1.8-2.0 in (4.5-5 cm)

Incubation Period: 27-29 days

Nestling Period: 49-81 days

Egg Description: Pale blue, fading slightly with age.

Condition at Hatching: Bluish eyes open, chick covered in pale gray down, able to vocalize.

Nest Placement: Great Blue Herons nest mainly in trees, but will also nest on the ground, on bushes, in mangroves, and on structures such as duck blinds, channel markers, or artificial

nest platforms. Males arrive at the colony and settle on nest sites; from there, they court passing females. Colonies can consist of 500 or more individual nests, with multiple nests per tree built 100 or more feet off the ground.

Nest Description: Male Great Blue Herons collect much of the nest material, gathering sticks from the ground and nearby shrubs and trees, and from unguarded and abandoned nests, and presenting them to the female. She weaves a platform and a saucer-shaped nest cup, lining it with pine needles, moss, reeds, dry grass, mangrove leaves, or small twigs. Nest building can take from 3 days up to 2 weeks; the finished nest can range from a simple platform measuring 20 inches across to more elaborate structures used over multiple years, reaching 4 feet across and nearly 3.5 feet deep. Ground-nesting herons use vegetation such as salt grass to form the nest.

Bird Information

Habitat: Great Blue Herons live in both freshwater and saltwater habitats, and also forage in grasslands and agricultural fields, where they stalk frogs and mammals. Most breeding colonies are located within 2 to 4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests.

Food: Great Blue Herons eat nearly anything within striking distance, including fish, amphibians, reptiles, small mammals, insects, and other birds. They grab smaller prey in their strong mandibles or use their dagger-like bills to impale larger fish, often shaking them to break or relax the sharp spines before gulping them down.

Behavior: Great Blue Herons forage, usually alone, across much of the U.S. This largest of the North American herons wades slowly or stands stock still, peering into the water for prey. In flight the Great Blue Heron folds its neck into an "S" shape and trails its long legs behind, dangling them as it prepares to land or when courting. Breeding birds nest in colonies that can number several hundred pairs, where they build stick nests in trees, on bushes, or on the ground. If you visit a colony, look for elaborate courtship and pair-bonding displays that include a ritualized greeting, stick transfers, and nest relief ceremony in which the birds erect their plumes and "clapper" their bill tips. Pairs are mostly monogamous during a season, but they choose new partners each year. Away from the colony, Great Blue Herons defend feeding territories from other herons with dramatic displays in which the birds approach intruders with their head thrown back, wings outstretched, and bill pointing skyward. Gulls and even humans may also be a target of this defensive maneuver.

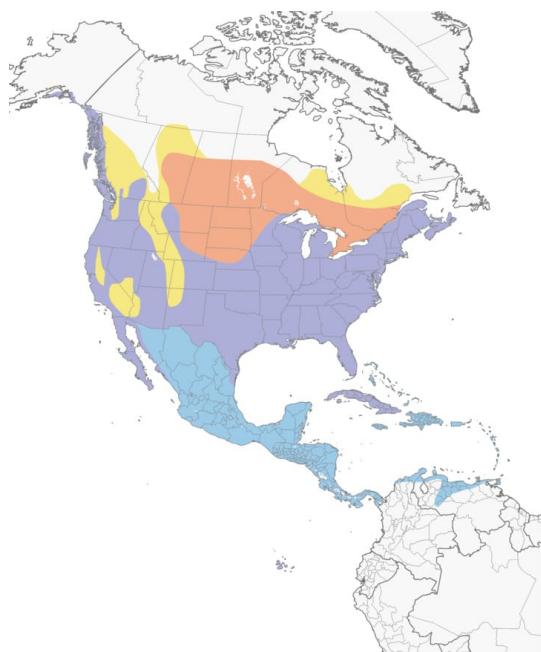
Conservation: Great Blue Heron numbers are stable and increased in the U.S. between 1966 and 2014, according to the North American Breeding Bird Survey. However, notable population declines have occurred in some areas, particularly in the "great white heron" group in southern Florida, where elevated mercury levels in local waterways may be a factor. The North American Waterbird Conservation Plan estimates a continental population of 83,000 breeding birds, and rates the species an 8 out of 20 on the Continental Concern Score. The Great White form of Great Blue Heron is on the

Color Pattern: Great Blue Herons appear blue-gray from a distance, with a wide black stripe over the eye. In flight, the upper side of the wing is two-toned: pale on the forewing and darker on the flight feathers. A pure white subspecies occurs in coastal southern Florida.

Fun Facts

- > Despite their impressive size, Great Blue Herons weigh only 5 to 6 pounds thanks in part to their hollow bones—a feature all birds share.
- > Great Blue Herons in the northeastern U.S. and southern Canada have benefited from the recovery of beaver populations, which have created a patchwork of swamps and meadows well-suited to foraging and nesting.
- > Along the Pacific coast, it's not unusual to see a Great Blue Heron poised atop a floating bed of kelp waiting for a meal to swim by.
- > The white form of the Great Blue Heron, known as the "great white heron," is found nearly exclusively in shallow marine waters along the coast of very southern Florida, the Yucatan Peninsula, and in the Caribbean. Where the dark and white forms overlap in Florida, intermediate birds known as "Wurdemann's herons" can be found. They have the body of a Great Blue Heron, but the white head and neck of the great white heron.
- > Great Blue Herons have specialized feathers on their chest that continually grow and fray. The herons comb this "powder down" with a fringed claw on their middle toes, using the down like a washcloth to remove fish slime and other oils from their feathers as they preen. Applying the powder to their underparts protects their feathers against the slime and oils of swamps.
- > Great Blue Herons can hunt day and night thanks to a high percentage of rod-type photoreceptors in their eyes that improve their night vision.
- > Great Blue Herons congregate at fish hatcheries, creating potential problems for the fish farmers. A study found that herons ate mostly diseased fish that would have died shortly anyway. Sick fish spent more time near the surface of the water where they were more vulnerable to the herons.
- > The oldest recorded Great Blue Heron was found in Texas when it was at least 24 years, 6 months old.
- > Thanks to specially shaped neck vertebrae, Great Blue Herons can quickly strike prey at a distance.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Blue form)

Very large and tall, with a long neck. Grayish-blue overall with long orangish-yellow bill and black crown and head plumes.



Immature (Blue form)

Very large and tall, with a long neck. Grayish-blue overall with pale belly, dark streaking on the neck, and brownish feathers mixed throughout. Bill long and dusky colored.



Adult (Blue form)

In flight shows black flight feathers contrasting with powdery-blue plumage.

Usually flights with neck in, but sometimes outstretched.



Adult (White form)

Very large and tall, with a long neck. White form is all white with long yellow bill and dull yellowish legs.



Adult (Wurdemann's)

Very large and tall, with a long neck. Body powdery-blue with white head, and orangish-yellow bill and legs.



Adult (Blue form)

When breeding has dense, shaggy plumes on the back and neck.



Adult (Blue form)

Hunts in a variety of shallow wetland habitats.



Adult (Blue form)

Nests in colonies of large stick nests high in trees, sometimes not near water.

Snowy Egret

Bird Characteristics

Scientific Name: *Egretta thula*

Order: Pelecaniformes

Family Name: Ardeidae

Conservation Status: Low Concern

Length: 22.1-26.0 in (56-66 cm)

Weight: 13.1 oz (370 g)

Wingspan: 39.4 in (100 cm)

Basic Description: Among the most elegant of the herons, the slender Snowy Egret sets off immaculate white plumage with black legs and brilliant yellow feet. Those feet seem to play a role in stirring up or herding small aquatic animals as the egret forages. Breeding Snowy Egrets grow filmy, curving plumes that once fetched astronomical prices in the fashion industry, endangering the species. Early conservationists rallied to protect egrets by the early twentieth century, and this species is once again a common sight in shallow coastal wetlands.

Nesting Characteristics

Clutch Size: 2-6 eggs

Egg Length: 1.6-1.7 in (4.1-4.4 cm)

Egg Width: 0.9-1.3 in (2.3-3.3 cm)

Incubation Period: 24-25 days

Nestling Period: 20-24 days

Egg Description: Pale greenish blue.

Condition at Hatching: Semi-helpless and covered with white down.

Nest Placement: Males establish nesting territories and choose nest sites within the thick vegetation of a breeding colony. The nest is usually in the top or outer branches of a woody vine, shrub, or tree.

Nest Description: The male starts working on a nest before finding a mate. Then the female takes over and ends up doing most of the nest building, with materials supplied by the male. The nest is a shallow oval of loosely woven twigs, small sticks, grasses, sedges, rushes, and Spanish moss, about 14–18 inches across and 8–13 inches high.

Bird Information

Habitat: Snowy Egrets nest in colonies on thick vegetation in isolated places—such as barrier islands, dredge-spoil islands, salt marsh islands, swamps, and marshes. They often change location from year to year. During the breeding season Snowy Egrets feed in estuaries, saltmarshes, tidal channels, shallow bays, and mangroves. They winter in mangroves, saltwater lagoons, freshwater swamps, grassy ponds, and temporary pools, and forage on beaches, shallow reefs, and wet fields.

Food: The Snowy Egret eats mostly aquatic animals, including fish, frogs, worms, crustaceans, and insects. It often uses its bright yellow feet to paddle in the water or probe in the mud, rounding up prey before striking with its bill. Snowy Egrets feed while standing, walking, running, or hopping, and they may vibrate their bills, sway their heads, or flick their wings as part of prey gathering. They even forage while hovering. Snowy Egrets forage in saltmarsh pools, tidal channels, tidal flats, freshwater marshes, swamps, ocean inlets, and lake edges, usually preferring brackish or marine habitats with shallow water. Other foraging water birds often assemble around them to form mixed-species foraging groups.

Behavior: Male Snowy Egrets fight for breeding territories, choose nest sites, and perform noisy courtship displays to attract mates. A ring of other egrets often gathers around a displaying male as he pumps his body up and down, points his bill skyward, and calls. He also performs aerial displays, including one that ends with him dropping toward the ground while tumbling around and around. After pairing up, Snowy Egrets continue defending the immediate area around the nest, raising their crests and giving rasping calls. Some of their nest predators include raccoons, Great Horned Owls, Barred Owls, American Crows, Fish Crows, American alligators, and gray rat snakes. Highly social all year long, Snowy Egrets forage with gulls, terns, ibises, and other herons, and they nest in colonies alongside many other species, including Great Egrets, night-herons, Glossy Ibises, Little Blue Herons, Tricolored Herons, Cattle Egrets, and Roseate Spoonbills.

Conservation: Snowy Egrets are once again numerous and their populations were stable from 1966 to 2014, according to the North American Breeding Bird Survey. The North American Waterbird Conservation Plan estimates a continental population of over 143,000 birds, rates the species a 14 out of 20 on the Continental Concern Score, and lists it as a Species of High Concern. Snowy Egret is not on the

Color Pattern: Adult Snowy Egrets are all white with a black bill, black legs, and yellow feet. They have a patch of yellow skin at the base of the bill. Immature Snowy Egrets have duller, greenish legs.

Fun Facts

-> Male and female Snowy Egrets take turns incubating their eggs. As one mate takes over for the other, it sometimes presents a stick, almost as if passing a baton. Both parents continue caring for the young when they hatch.

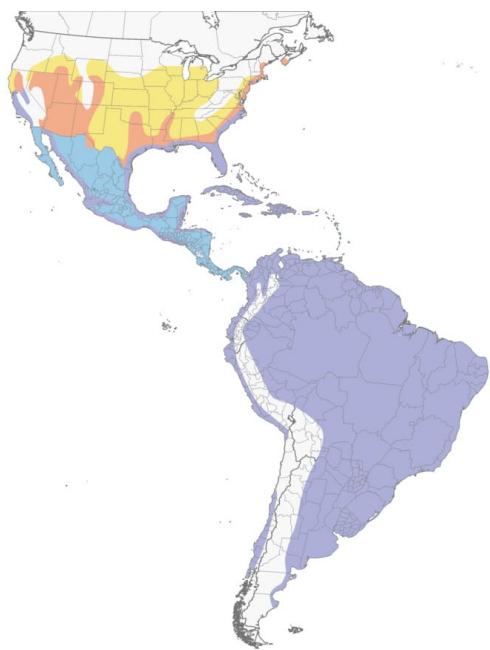
-> During the breeding season, adult Snowy Egrets develop long, wispy feathers on their backs, necks, and heads. In 1886 these plumes were valued at \$32 per ounce, which was twice the price of gold at the time. Plume-hunting for the fashion industry killed many Snowy Egrets and other birds until reforms were passed in the early twentieth century. The recovery of shorebird populations through the work of concerned citizens was an early triumph and helped give birth to the conservation movement.

-> Adult Snowy Egrets have greenish-yellow feet for most of the year, but at the height of the breeding season their feet take on a much richer, orange-yellow hue. The bare skin on their face also changes color, from yellow to reddish.

-> Snowy Egrets sometimes mate with other heron species and produce hybrid offspring. They have been known to hybridize with Tricolored Herons, Little Blue Herons, and Cattle Egrets.

-> The oldest Snowy Egret on record was at least 17 years, 7 months old. It was banded in Colorado in 1970 and found in Mexico in 1988.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Medium-sized snow white heron with a black bill and yellow feet.



Immature

Immature birds look similar to adults, but have dull yellowish green legs.



Adult

None



Breeding adult

During the breeding season, adult Snowy Egrets develop long, wispy feathers on their backs, necks, and heads.



Adult

Stalks, walks, or runs after fish, frogs, and aquatic invertebrates. Often uses its bright yellow feet to stir up the water or probe in the mud, rounding up prey before striking with its bill.



Adult

Medium-sized heron with a long neck and daggerlike bill. Entirely white with a yellow patch of skin in front of the eye.



Adult (with Great Egret)

Snowy Egrets are smaller than Great Egrets and have a black (not yellow) bill and yellow (not black) feet.



Habitat

Found in mudflats, beaches, and wetlands, but also forages in wet agricultural fields and along the edges of rivers and lakes.

Green Heron

Bird Characteristics

Scientific Name: *Butorides virescens*

Order: Pelecaniformes

Family Name: Ardeidae

Conservation Status: Common Bird in Steep Decline

Length: 16.1-18.1 in (41-46 cm)

Weight: 8.5 oz (240 g)

Wingspan: 25.2-26.8 in (64-68 cm)

Basic Description: From a distance, the Green Heron is a dark, stocky bird hunched on slender yellow legs at the water's edge, often hidden behind a tangle of leaves. Seen up close, it is a striking bird with a velvet-green back, rich chestnut body, and a dark cap often raised into a short crest. These small herons crouch patiently to surprise fish with a snatch of their daggerlike bill. They sometimes lure in fish using small items such as twigs or insects as bait.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-2 broods

Egg Length: 1.3-1.7 in (3.4-4.3 cm)

Egg Width: 1.1-1.4 in (2.7-3.5 cm)

Incubation Period: 19-21 days

Nestling Period: 16-17 days

Egg Description: Pale green to bluish.

Condition at Hatching: Mostly helpless, but with open eyes. Covered with grayish brown down on top and white down beneath.

Nest Placement: The male selects a secluded site within his territory, usually in a large fork of a tree or bush, with overhanging branches to conceal the nest. Green Herons use many plant

species as nest sites pines, oaks, willows, box elder, cedar, honey locust, hickory, sassafrass, and mangroves. The nest is usually on or over the water, but may be up to a half-mile away. It may be anywhere from ground level to 30 feet off the ground (occasionally higher).

Nest Description: The male begins building the nest before pairing up to breed, but afterward passes off most of the construction to his mate. As the male gathers long, thin sticks, the female shapes them into a nest 8–12 inches across, with a shallow depression averaging less than 2 inches deep. The nest varies from solid to flimsy, and has no lining. Green Herons sometimes renovate old nests, or build in old nests of Black-crowned Night-Herons or Snowy Egrets. Occasionally they take sticks from nearby old nests and refashion them into new nests. They keep adding sticks throughout the breeding season.

Bird Information

Habitat: Green Herons are common breeders in coastal and inland wetlands. They nest along swamps, marshes, lakes, ponds, impoundments, and other wet habitats with trees and shrubs to provide secluded nest sites. They may even nest in dry woods and orchards as long as there is water nearby for foraging. Green Herons spend the winter in southern coastal areas of their range, and in marine and freshwater habitat throughout Mexico and Central America. In tropical areas they are common in mangrove swamps.

Food: Green Herons eat mainly small fish such as minnows, sunfish, catfish, pickerel, carp, perch, gobies, shad, silverside, eels, and goldfish. They also feeds on insects, spiders, crustaceans, snails, amphibians, reptiles, and rodents. They hunt by standing still at the water's edge, in vegetation, or by walking slowly in shallow water. When a fish approaches, the heron lunges and darts its head, grasping (or sometimes spearing) the fish with its heavy bill. Occasionally Green Herons hunt in deeper water by plunging on prey from above. They hunt at all times of the day and night in the shallows of swamps, creeks, marshes, ditches, ponds, and mangroves. They usually forage among thick vegetation in water that is less than 4 inches deep, avoiding the deeper and more open areas frequented by longer-legged herons.

Behavior: Each breeding season, Green Herons pair up with one mate apiece, performing courtship displays that include stretching their necks, snapping their bills, flying with exaggerated flaps, and calling loudly. They often nest solitarily, although they may join colonies with other Green Herons or with other species. They defend breeding areas from each other and from birds like crows and grackles that prey on their nests. Other predators include snakes and raccoons. Both the male and female brood and feed the chicks, which may stay with their parents for more than a month after leaving the nest, as they learn to forage. Green Herons protect their feeding areas by driving away other species, such as American Coots, that approach too closely.

Conservation: Green Herons are still common, but their population suffered a gradual decline of over 1.5% per year from 1966 to 2014, resulting in a cumulative decline of 68%, according to the North American Breeding Bird Survey. The North American Waterbird Conservation Plan rates Green Heron as a Species of Low Concern, and rates it a 12 out of 20 on the

Continental Concern Score. Green Heron is not listed on the

Color Pattern: From a distance Green Herons look all dark. In better light they are deep green on the back with a rich chestnut breast and neck. The wings are dark gray. Juveniles are browner, with pale streaking on the neck and spots on the wings.

Fun Facts

-> The Green Heron is part of a complex of small herons that sometimes are considered one species. When lumped, they are called Green-backed Heron. When split, they are the Green Heron, the widespread Striated Heron, and the Galapagos Heron.

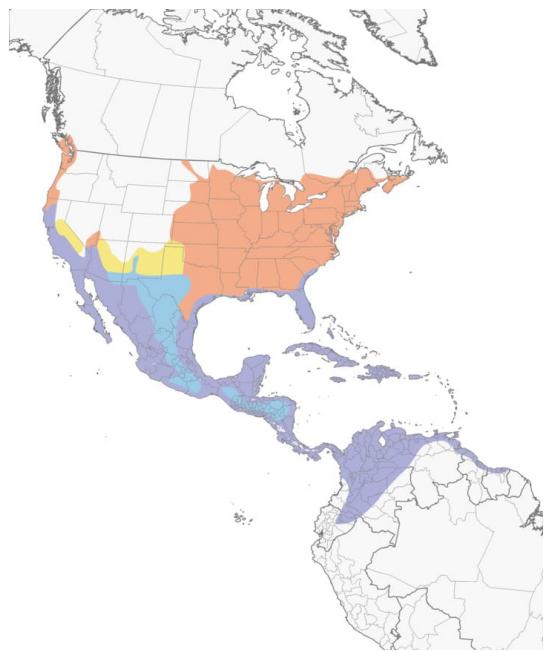
-> The Green Heron is one of the world's few tool-using bird species. It often creates fishing lures with bread crusts, insects, and feathers, dropping them on the surface of the water to entice small fish.

-> Green Herons usually hunt by wading in shallow water, but occasionally they dive for deep-water prey and need to swim back to shore—probably with help from the webs between their middle and outer toes. One juvenile heron was seen swimming gracefully for more than 60 feet, sitting upright "like a little swan," according to one observer.

-> Like many herons, the Green Heron tends to wander outside of its breeding range after the nesting season is over. Most of the wanderers stay nearby as they search for good feeding habitat, but some travel long distances. Individuals have turned up as far away as England and France.

-> The oldest Green Heron on record was at least 7 years, 11 months old when it was found in Mexico in 1979. It had been banded in Oklahoma in 1971.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Small and stocky with a daggerlike bill and a thick neck that is often drawn into their body. Adults have a deep green back and crown, and a chestnut neck and breast.



Juvenile

Small, compact heron. Juveniles are browner overall, with pale streaking on the neck and spots on the wings. Note dark cap.



Adult

Look rather ungainly in flight, often partially uncrooking their necks to give

them a front-heavy appearance.



Adult

The center of their neck is streaked, but the streaking can be hard to see as they frequently have their necks tucked in or they are crouched over making it difficult to see the center of the neck.



Adult

Generally appears all dark, except in good light when the feathers shine with an almost iridescent green color.



Juvenile

Juveniles are browner overall with more streaking on the neck than adults.



Juvenile

Crouches on sticks, branches, or the waters edge patiently stalking small fish or amphibians.



Habitat

Found along swamps, marshes, lakes, ponds, impoundments, and other wet habitats with dense vegetation to provide cover.

Black-crowned Night-Heron

Bird Characteristics

Scientific Name: *Nycticorax nycticorax*

Order: Pelecaniformes

Family Name: Ardeidae

Conservation Status: Low Concern

Length: 22.8-26.0 in (58-66 cm)

Weight: 25.6-35.8 oz (727-1014 g)

Wingspan: 45.3-46.5 in (115-118 cm)

Basic Description: Black-crowned Night-Herons are stocky birds compared to many of their long-limbed heron relatives. They're most active at night or at dusk, when you may see their ghostly forms flapping out from daytime roosts to forage in wetlands. In the light of day adults are striking in gray-and-black plumage and long white head plumes. These social birds breed in colonies of stick nests usually built over water. They live in fresh, salt, and brackish wetlands and are the most widespread heron in the world.

Nesting Characteristics

Clutch Size: 3-5 eggs

Egg Length: 2.0-2.2 in (5-5.6 cm)

Egg Width: 1.4-1.5 in (3.6-3.9 cm)

Incubation Period: 24-26 days

Nestling Period: 29-34 days

Egg Description: Greenish-blue.

Condition at Hatching: Mostly helpless, covered with gray and white down, with open eyes.

Nest Placement: The male chooses a nest site in a tree or in cattails—usually in a habitat safe from predators such as on an island, in a swamp, or over water—and then advertises for a female. Black-crowned Night-Herons nest colonially, often with a dozen nests in a single tree. Colonies sometimes last for 50 years or more.

Nest Description: The male starts building the nest, a platform of sticks, twigs, and other woody vegetation which he collects from the ground (or breaks right off of the trees). Once he has found a mate, the male continues collecting material but passes it to the female, who works it into the nest. Some nests are sturdy, while others are flimsy. They measure 12–18 inches across and 8–12 inches high.

Bird Information

Habitat: Black-crowned Night-Herons are common in wetlands across North America, including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, canals, reservoirs, and wet agricultural fields. They require aquatic habitat for foraging and terrestrial vegetation for cover. They spend the winter in southern and coastal portions of their breeding range as well as across Mexico and Central America, where they use mangroves, marshes, swamps, lagoons, and flooded rice fields.

Food: Black-crowned Night-Herons are opportunists feeders that eat many kinds of terrestrial, freshwater, and marine animals. Their diet includes leeches, earthworms, insects, crayfish, clams, mussels, fish, amphibians, lizards, snakes, turtles, rodents, birds, and eggs. They also eat carrion, plant materials, and garbage from landfills. Rather than stabbing their prey, they grasp it in their bills. Black-crowned Night-Herons normally feed between evening and early morning, avoiding competition with other heron species that use the same habitat during the day. They may feed during the day in the breeding season, when they need extra energy for nesting.

Behavior: Black-crowned Night-Herons nest colonially and behave socially all year long. Both males and females vigorously defend feeding and nesting territories, sometimes striking with their bills and grabbing each other's bills or wings. Night-herons are probably monogamous. The male advertises for a mate with displays that involve bowing and raising the long plume on his head. Both the male and the female incubate the eggs and brood the chicks, greeting each other with calls and raised feathers when switching over duties. The young leave the nest at the age of 1 month and move through the vegetation on foot, forming nocturnal flocks in feeding areas. They learn to fly when they are 6 weeks old, and then disperse widely.

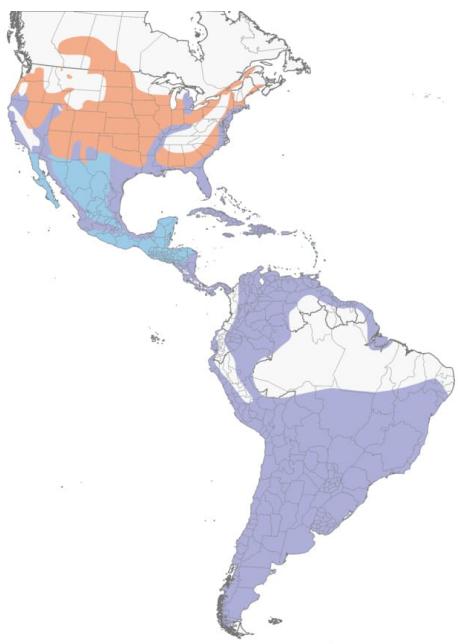
Conservation: Black-crowned Night-Herons are fairly common, but numbers appear to have slightly decreased between 1966 and 2014, according to the North American Breeding Bird Survey - although their clumped distributions make it hard to estimate trends precisely. The North American Waterbird Conservation Plan estimates a population of over 50,000 individuals on the continent, rates them an 13 out of 20 on the Continental Concern Score, and lists them as a Species of Moderate Concern. They are not on the

Color Pattern: Adults are light-gray birds with a neatly defined black back and black crown. Immatures are brown with large white spots on the wings and blurry streaks on the underparts. Adults have all-black bills; immatures have yellow-and-black bills.

Fun Facts

- > Scientists find it easy, if a bit smelly and messy, to study the diet of young Black-crowned Night-Herons—the nestlings often disgorge their stomach contents when approached.
- > Black-crowned Night Heron nest in groups that often include other species, including herons, egrets, and ibises.
- > A breeding Black-crowned Night-Heron will brood any chick that is placed in its nest. The herons apparently don't distinguish between their own offspring and nestlings from other parents.
- > Young Black-crowned Night-Herons leave the nest at the age of 1 month but cannot fly until they are 6 weeks old. They move through the vegetation on foot, joining up in foraging flocks at night.
- > The familiar evening sight and sound of the Black-crowned Night-Heron was captured in this description from Arthur Bent's
- > The oldest Black-crowned Night-Heron on record was a female who was at least 21 years, 5 month old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (American)

Stocky and compact heron. Often tucks neck into its body creating a hunchbacked look. Adults have a black cap and back that contrasts with its whitish to pale gray belly and gray wings.



Juvenile

Thick-necked heron with a thick bill. Juveniles are brown and streaky overall. Note pale yellowish bill.



Juvenile

Juveniles are brown overall with heavy blurry streaking on their neck and

white spotting on their wings.



Immature (American)

Immature birds have a mix of juvenile and adult plumage. This individual has faint streaking on the chest, a dark gray cap, and a nearly complete dark gray back.



Adult (Eurasian)

None



Adult (Eurasian)

None



Adult (American)

Flies with its neck tucked in with only part of its feet trailing behind. In flight, note pale underparts.



Adult (Dusky)

Residents in southern South America are darker brown overall with a gray cap.



Adult (Dusky)

Often stands motionless while watching for prey. Individuals in southern South America are darker below with a paler gray cap.



Habitat

Found in wetland habitats including estuaries, marshes, streams, lakes, and reservoirs.

Roseate Spoonbill

Bird Characteristics

Scientific Name: *Platalea ajaja*

Order: Pelecaniformes

Family Name: Threskiornithidae

Conservation Status: Low Concern

Length: 27.9-33.9 in (71-86 cm)

Weight: 42.3-63.5 oz (1200-1800 g)

Wingspan: 47.2-51.2 in (120-130 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1 brood

Egg Length: 2.2-2.8 in (5.7-7.2 cm)

Egg Width: 1.6-1.9 in (4.1-4.8 cm)

Incubation Period: 22 days

Nestling Period: 35-42 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Roseate Spoonbills nest in colonies with egrets, ibises, and herons, typically on islands or over standing water. They nest in mangroves, Brazilian pepperbush, willows, sea myrtle, and other shrubs near the water. They tend to put their nests in the shadiest part of the tree or shrub, up to 16 feet high.

Nest Description: Males collect sticks for females to build a bulky platform lined with finer plant material such as moss and strips of bark. The completed nest is about 22 inches wide and 4.5

inches deep.

Bird Information

Habitat: Roseate Spoonbills forage in the shallows of fresh, brackish, and marine waters with good sources of aquatic invertebrates. These include bays and mangroves to forested swamps and roadside ditches. They nest and roost in trees and shrubs along the water's edge.

Food: Roseate Spoonbills forage in shallow waters typically less than 5 inches deep. They sweep their partly opened spoon-shaped bill through the water, feeling and looking for crustaceans such as shrimp, prawns, aquatic insects, and fish. Once they feel the prey on their bill they snap it closed, often swallowing the item whole.

Behavior: Roseate Spoonbills slowly walk through shallow water with their bodies held horizontally and their spoon-shaped bill underwater feeling for prey. They sleep while standing, often on one leg with the head tucked under a shoulder. Roseate Spoonbills are social birds that gather in small to large (anywhere from 2 to around 400) groups when feeding and roosting. They fly to and from feeding and roosting areas with slow and deep wingbeats with their legs and neck fully extended. When foraging spoonbills spot a group of spoonbills flying overhead they stick their necks and bills straight up into the air in a posture called sky gazing. Spoonbills share the roosting and nesting colony with egrets, herons, and ibises. At colonies males bob their heads up and down while shaking nearby twigs to get the attention of a female. Interested pairs may bite each other's bills or may raise their outstretched wings above their body. Once paired, males present females with sticks, which they shake while holding them in their bills. Pairs generally stay together only for one breeding season.

Conservation: Roseate Spoonbills nest and forage in areas that can be difficult to reach, so obtaining an accurate estimate of their population is difficult. The best available estimates come from the North American Breeding Bird Survey and Partners in Flight. According to the

Color Pattern: None

Fun Facts

-> The Roseate Spoonbill is 1 of 6 species of spoonbills in the world and the only one found in the Americas. The other 5 spoonbills (Eurasian, Royal, African, Black-faced, and Yellow-billed) occur in Asia, Africa, Europe, and Australia.

-> As humans, we are all too familiar with hair loss as we get older. Roseate Spoonbills, it turns out, are familiar with balding too, but instead of losing hair they lose feathers from the top of their head as they get older.

-> Roseate Spoonbill chicks don't have a spoon-shaped bill immediately after hatching. When they are 9 days old the bill starts to flatten, by 16 days it starts to look a bit more spoonlike, and by 39 days it is nearly full size.

- > Roseate Spoonbills get their pink coloration from the foods they eat. Crustaceans and other aquatic invertebrates contain pigments called carotenoids that help turn their feathers pink.
- > The oldest recorded Roseate Spoonbill was at least 15 years, 10 months old when it was recaptured and rereleased during a scientific study in Florida.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large, pink wading bird with a long, spoon-shaped bill. Adults have brighter pink shoulders and a bare yellowish green head.



Juvenile

Juveniles look similar to adults, but are paler pink and have a completely feathered head. Spoon-shaped bill is distinctive.



Juvenile

Flies with its neck outstretched. Note pink underwings.



Adult

Flies with deep and strong wingbeats.



Adult

None



Adult

Nests and roosts in trees and shrubs including mangrove, sea myrtle, hackberry, and mesquite.



Juvenile

Juveniles are pale pink with a completely feathered head.



Habitat

Found in freshwater and saltwater wetlands, mangroves, forested swamps, rivers, bays, estuaries, mudflats, and lagoons.

Double-crested Cormorant

Bird Characteristics

Scientific Name: *Nannopterum auritum*

Order: Suliformes

Family Name: Phalacrocoracidae

Conservation Status: Low Concern

Length: 27.6-35.4 in (70-90 cm)

Weight: 42.3-88.2 oz (1200-2500 g)

Wingspan: 44.9-48.4 in (114-123 cm)

Basic Description: The gangly Double-crested Cormorant is a prehistoric-looking, matte-black fishing bird with yellow-orange facial skin. Though they look like a combination of a goose and a loon, they are relatives of frigatebirds and boobies and are a common sight around fresh and salt water across North America—perhaps attracting the most attention when they stand on docks, rocky islands, and channel markers, their wings spread out to dry. These solid, heavy-boned birds are experts at diving to catch small fish.

Nesting Characteristics

Clutch Size: 1-7 eggs

Number of Broods: 1-2 broods

Egg Length: 2.2-2.8 in (5.6-7 cm)

Egg Width: 1.4-1.6 in (3.5-4 cm)

Incubation Period: 25-28 days

Nestling Period: 21-28 days

Egg Description: Unmarked pale blue.

Condition at Hatching: Naked and feeble, eyes closed and barely able to move head.

Nest Placement: The male chooses the nest site and then attracts a female. Nests can be on the ground, on rocks or reefs with no vegetation, or atop trees, which may be alive when a

cormorant colony first forms but typically die after a few years from the guano build-up. Nests are built in the center of a colony first, then expand outward.

Nest Description: Both Double-crested Cormorant mates work on the nest, with the male bringing most of the material and the female doing the building. The nest is mostly made of finger-size sticks, with some seaweed and flotsam, and lined with grass. Nests are 1.5 to 3 feet in diameter and 4 to 17 inches high; ground nests tend to be wider than tree nests, but tree nests have deeper interiors. Breeding cormorants readily steal nesting materials from a nearby nest that's not guarded.

Bird Information

Habitat: Double-crested Cormorants are colonial waterbirds that seek aquatic bodies big enough to support their mostly fish diet. However, they may roost and form breeding colonies on smaller lagoons or ponds, and then fly up to 40 miles to a feeding area. In addition to fishing waters, cormorants need perching areas for the considerable amount of time they spend resting each day. After fishing, cormorants retire to high, airy perches to dry off and digest their meals—rocks, wires, tops of dead trees, ship masts. They tend to form breeding colonies in clusters of trees in or near water. After a while, masses of cormorant guano may kill these trees and the trees may topple, at which point the cormorants may switch to nesting on the ground.

Food: A cormorant's diet is almost all fish, with just a few insects, crustaceans, or amphibians. They eat a wide variety of fish (more than 250 species have been reported), and they have impressive fishing technique: diving and chasing fish underwater with powerful propulsion from webbed feet. The tip of a cormorant's upper bill is shaped like a hook, which is helpful for catching prey. When cormorants happen to catch a crustacean like a crayfish, they exhibit a little flair in eating it—hammering the prey on the water to shake its legs off, then flipping it in the air and catching it headfirst for easy swallowing.

Behavior: Double-crested cormorants are gregarious birds that are almost always near water. Their main two activities are fishing and resting, with more than half their day spent on the latter. When at rest, a cormorant will choose an exposed spot on a bare branch or a windblown rock, and often spread its wings out, which is thought to be a means of drying their feathers after fishing. (Cormorants have less preen oil than other birds, so their feathers can get soaked rather than shedding water like a duck's. Though this sounds like a liability, this is thought to be an adaptation that helps cormorants hunt underwater more effectively.) When swimming atop the water, cormorants ride very low, and often only their long necks are evident. Before a cormorant takes off in flight, it tends to stretch its neck in the direction it intends to fly. When it comes in for a landing, a cormorant will puff out the orange skin on its neck and, after touchdown, give a ritual little hop. If one cormorant encroaches on the space of another, such as in competition over a nest site, the cormorants will face off, stretch their necks, and open their mouths wide open to show off the blue color inside while shaking their heads and hissing at each other. To attract a mate for the season, a male cormorant will choose a nest site and then stand with his breast down and bill and tail up, showing off the crests on his head and

bright colors of his neck and his eyes, grunting and slightly waving his outstretched wings. When a female arrives, she is greeted by the male opening his mouth into a gape, showing off the blue inside.

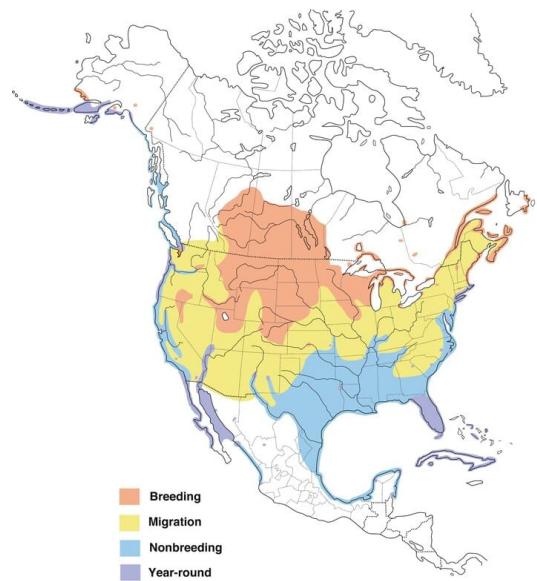
Conservation: Double-crested Cormorant populations have rebounded from persecution and pesticides over the past couple centuries, and today they are a widespread and abundant species. Populations increased steadily between 1966 and 2015, according to the North American Breeding bird Survey. The North American Waterbird Conservation Plan estimates a continental population of over 740,000 breeding birds. The species rates an 8 out of 20 on the Continental Concern Score. Double-breasted Cormorant is not on the

Color Pattern: Adults are brown-black with a small patch of yellow-orange skin on the face. Immatures are browner overall, palest on the neck and breast. In the breeding season, adults develop a small double crest of stringy black or white feathers.

Fun Facts

- > From a distance, Double-crested Cormorants are dark birds with snaky necks, but up-close they're quite colorful—with orange-yellow skin on their face and throat, striking aquamarine eyes that sparkle like jewels, and a mouth that is bright blue on the inside.
- > The double crest of the Double-crested Cormorant is only visible on adults during breeding season. The crests are white in cormorants from Alaska and black in other regions.
- > Cormorants often stand in the sun with their wings spread out to dry. They have less preen oil than other birds, so their feathers can get soaked rather than shedding water like a duck's. Though this seems like a problem for a bird that spends its life in water, wet feathers probably make it easier for cormorants to hunt underwater with agility and speed.
- > Double-crested Cormorant nests often are exposed to direct sun. Adults shade the chicks and also bring them water, pouring it from their mouths into those of the chicks.
- > In breeding colonies where the nests are placed on the ground, young cormorants leave their nests and congregate into groups with other youngsters (creches). They return to their own nests to be fed.
- > Accumulated fecal matter below nests can kill the nest trees. When this happens, the cormorants may move to a new area or they may simply shift to nesting on the ground.
- > The Double-crested Cormorant makes a bulky nest of sticks and other materials. It frequently picks up junk, such as rope, deflated balloons, fishnet, and plastic debris to incorporate into the nest. Parts of dead birds are commonly used too.
- > Large pebbles are occasionally found in cormorant nests, and the cormorants treat them as eggs.
- > The oldest known Double-crested Cormorant was at least 22 years, 8 months old; it was banded in Oregon in 1997 and spotted by a bird watcher in Washington in 2020.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Large waterbird with a long tail and neck. Breeding birds have small tufts on the side of the head, but can be difficult to see. Note orange-yellow skin around the base of the bill and chin.



Juvenile

Large, gangly waterbird with a long, hooked bill. Juveniles have orange-yellow skin around the bill and a paler neck and breast. After fishing, stands on docks, rocks, and tree limbs with wings spread open to dry.



Breeding adult

Flies with a bend in its neck. Dark overall.



Breeding adult

Large waterbird with a long tail and neck. Breeding birds have small tufts on the side of the head, but can be difficult to see. Birds in the north west tend to have whiter tufts. Note orange-yellow skin around the base of the bill and chin.



Juvenile

Juveniles have a pale neck and breast that gradually blends into its darker belly.



Nonbreeding adult

Sits low in the water. Nonbreeding birds are dark overall with orange-yellow

skin around the bill and chin.



Habitat

Breeds in colonies on the coast as well as on large inland lakes. Builds stick nests high in trees or on the ground.

Anhinga

Bird Characteristics

Scientific Name: Anhinga anhinga

Order: Suliformes

Family Name: Anhingidae

Conservation Status: Low Concern

Length: 29.5-37.4 in (75-95 cm)

Weight: 46.7-47.6 oz (1325-1350 g)

Wingspan: 42.9 in (109 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 1.9-2.3 in (4.7-5.8 cm)

Egg Width: 1.3-1.5 in (3.3-3.8 cm)

Incubation Period: 26-30 days

Nestling Period: 14-21 days

Egg Description: Conspicuously pointed at one end, pale bluish green, and overlaid with a chalky coating.

Condition at Hatching: undefined

Nest Placement: The Anhinga typically nests in loose groups of several to hundreds of pairs, and sometimes with other colonial waterbirds. The nest is usually in a tree near to water or overhanging it.

Nest Description: The male begins nest construction before he has a mate, by placing large sticks and green material in the forks of trees. The male collects nearly all the nesting material,

and the female then finishes building. The nest is a bulky platform of sticks, somewhat more compact than heron nests. It is often lined with fresh leaves, green twigs, willow leaves, and catkins. Over time, excrement can build up on the outer rim of the nest giving it a white appearance.

Bird Information

Habitat: The Anhinga lives in shallow, slow-moving, sheltered waters and uses nearby perches and banks for drying and sunning. It's rarely found out of freshwater except during severe droughts. Generally not found in extensive areas of open water, though it may nest on edges of open bays and lakes. Breeds in association with other waterbirds such as herons, egrets, ibises, storks, and cormorants. The Anhinga may also breed in saltwater colonies and feed in freshwater.

Food: The Anhinga's diet consists of many small- to medium-sized wetland fishes, with very small amounts of crustaceans and invertebrates. It swims slowly underwater, stalking fish around submerged vegetation. Anhingas typically spear fish through their sides with a rapid thrust of their partially opened bill. They usually stab with both mandibles, but may use the upper mandible only on small fish. The side-spearing habit of the Anhinga suggests that the usual hunting method is by stalking rather than pursuit.

Behavior: The Anhinga swims lower in the water than many other birds due to its reduced buoyancy-a result of wetted plumage and dense bones. When at the surface, it tends to swim low in the water, often with only the neck and head above the water, and sometimes with only the bill exposed. The Anhinga is also an adept soarer. While soaring, it holds its wings flat and straight, its neck outstretched or held with a slight kink; its long, straight tail is conspicuous. Anhingas often use thermals for soaring, and may achieve altitudes of several thousand feet.

Conservation: Anhingas are uncommon throughout their range and they reside in areas that can be difficult to reach, thus obtaining a relatively accurate estimate of their population is difficult. The best available estimate of their population comes from the North American Breeding Bird Survey and Partners in Flight. According to the

Color Pattern: None

Fun Facts

- > The Anhinga's distinctive shape earned it the nickname "water turkey" for its turkeylike tail, and "snake bird" for its long snakelike neck as it slithers through the water.
- > Unlike most waterbirds, the Anhinga doesn't have waterproof feathers. While that may seem like a disadvantage for their watery lifestyle, their wet feathers and dense bones help them slowly submerge their bodies under the water so they can slyly stalk fish.
- > The name Anhinga comes from the Tupi Indians in Brazil, meaning "devil bird" or "evil spirit"

of the woods."

-> The oldest recorded Anhinga was at least 12 years old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large waterbird with a long tail, a long S-shaped neck, and a daggerlike bill. Adult males are black with silvery to white streaks on the back and wings.



Female/immature

Females/immatures have pale head, neck, and breast and a dark belly. Note long S-shaped neck and daggerlike bill.



Female/immature

Large waterbird with large, broad wings. Flies with neck outstretched.

Sometimes soars high in the sky riding thermals.



Female/immature

Holds wings out to dry after being in the water.



Female/immature

Swims low in the water often with its body partly or mostly submerged with only its neck or bill visible.



Adult male and juvenile

Nests in loose groups. Usually nests in a tree near water.



Female/immature

Found in shallow, slow-moving, sheltered waters and uses nearby perches and banks for drying and sunning.

Magnificent Frigatebird

Bird Characteristics

Scientific Name: *Fregata magnificens*

Order: Suliformes

Family Name: Fregatidae

Conservation Status: Restricted Range

Length: 35.0-44.9 in (89-114 cm)

Weight: 35.3-67.0 oz (1000-1900 g)

Wingspan: 85.4-88.2 in (217-224 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1 egg

Number of Broods: 1 brood

Egg Length: 2.6-2.9 in (6.5-7.4 cm)

Egg Width: 1.7-2.0 in (4.4-5 cm)

Incubation Period: 53-61 days

Nestling Period: 150-185 days

Egg Description: White.

Condition at Hatching: Naked and helpless.

Nest Placement: Magnificent Frigatebirds nests in dense colonies on top of low trees and shrubs on islands. Nests are packed into small areas and are often within striking distance of another nest. The female builds the nest on the display perch used by the male she chooses.

Nest Description: The male brings sticks to the female, which she arranges into a flimsy platform about 9-14 inches wide. The male gathers sticks from trees and shrubs, but also steals them from other males. Nest building takes about 13 days.

Bird Information

Habitat: Magnificent Frigatebirds range along coasts and islands in tropical and subtropical waters. They nest and roost in mangrove cays on coral reefs and in low trees and shrubs on islands. Magnificent Frigatebirds forage over warm oceans far out to sea, along the coast, and in shallow lagoons.

Food: Magnificent Frigatebirds eat primarily flying fish, tuna, herring, and squid, which they grab from the surface of the water without getting wet. They also eat plankton, crabs, jellyfish, and other items on the surface of the water including discarded fish from fishing boats. Magnificent Frigatebirds forage for themselves, but they also chase and harass other seabirds and frigatebirds forcing them to regurgitate recently captured meals, swooping down to steal the meal before it hits the water.

Behavior: Frigatebirds soar effortlessly over the ocean rarely flapping their long, pterodactyl-like wings and using the long tail to steer. Though they are frequently seen soaring, they are masters of pursuit. They chase other birds including frigatebirds, forcing them to regurgitate their recent meal, which they scoop up before it hits the water. Their gracefulness ends as soon as they head towards land, where they awkwardly perch in low shrubs and trees. Their strong toes help them hold onto branches, posts, and boat masts, but their small feet in combination with their short legs makes it nearly impossible for them to walk on land. On land, males often flutter the balloonlike throat sac (or "gular pouch") to cool off. Males and females also regulate their body temperature by holding up their wings up to sun themselves. To get airborne, they flap a few times and use the wind to help lift them into the air. Male Magnificent Frigatebirds gather in groups to court females. They perch in low trees and shrubs with their red throat sac inflated like a balloon and clatter their bills, waving their heads back and forth, and calling at females flying overhead. Females choose a mate and begin building a nest on the male's display perch. The pair stays together for up to 3 months, after which the male leaves and the female raises the chick alone for up to 1 year.

Conservation: Magnificent Frigatebirds are relatively common, but

Color Pattern: None

Fun Facts

-> Frigatebirds are the only seabirds in which the male and female look strikingly different. Females may not have the males' bright red pouch, but they are bigger than males.

-> The breeding period of the Magnificent Frigatebird is exceptionally long. Males and females incubate the eggs for around 56 days, and once hatched, chicks don't leave the nest until they are about 167 days old. Even after they leave the nest, females continue to feed them until they are one year old.

- > The Magnificent Frigatebird spends most of its life flying effortlessly over the ocean. It rarely lands on the water even though it has webbed feet, because unlike other seabirds it lacks waterproof feathers.
- > The frigatebird is sometimes called the "man-o-war bird" because it harasses other birds until they regurgitate recently captured food, which the frigatebird snatches in midair.
- > Learning how to chase other birds and steal meals takes practice. Young frigatebirds hold sticks in their mouths and chase each other. When one of them drops the stick, the other dives below to retrieve it.
- > The oldest known Magnificent Frigatebird was at least 19 years, 9 months old when it was recaptured and rereleased in the Lesser Antilles during a scientific study.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

An all dark, long-winged, fork-tailed bird of tropical oceans. Males have a bare patch of red skin on the throat (gular sac), barely visible outside the breeding season.



Adult female

Soars effortlessly on its long wings using its deeply forked tail to steer. Females have a dark head and white breast patch.



Immature male (stage 4)

An all dark fork-tailed bird of tropical oceans. Soars effortlessly on its long

wings, which have a pronounced bend. Males have a bare patch of red skin on the throat (gular sac), barely visible outside the breeding season.



Immature female (Stage 3)

Spends most of its time in the air, gliding for hours with little to no wing movements. Immature females have a white head and belly.



Juvenile

Juveniles have a white head and belly.



Juvenile (stage 1)

Juveniles have a white head and belly.



Adult male
None



Adult male
None



Flock
Flaps with deep wing beats when needed, otherwise soars effortlessly across tropical oceans. Note immatures and females with white heads and breasts.

Wood Stork

Bird Characteristics

Scientific Name: *Mycteria americana*

Order: Ciconiiformes

Family Name: Ciconiidae

Conservation Status: Low Concern

Length: 33.5-45.3 in (85-115 cm)

Weight: 72.3-93.1 oz (2050-2640 g)

Wingspan: 59.1-68.9 in (150-175 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1 brood

Egg Length: 2.4-2.9 in (6.1-7.3 cm)

Egg Width: 1.3-2.2 in (3.4-5.5 cm)

Nestling Period: 50-55 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Wood Storks nest in trees above standing water. They build nests in cypress swamps, in oaks in flooded impoundments, in mangroves, and in flooded areas with black gum and Australian pine. Almost any tree or shrub will do as long as standing water is present.

Nest Description: Males and females gather sticks from the surrounding areas. Together they build a large, bulky stick nest 3–5 feet wide. They line the nest with greenery that eventually gets covered in guano, which helps hold the nest together. Nest building typically takes 2–3 days, but the pair continues to make improvements throughout the nesting period.

Bird Information

Habitat: Wood Storks breed in fresh and brackish forested wetlands. They forage in wetlands, swamps, ponds, and marshes with water depths of around 4–12 inches. They tend to use open wetlands more frequently for foraging than closed canopy wetlands. Storks roost in trees along the water's edge.

Food: Wood Storks primarily eat fish and other aquatic invertebrates, but sometimes take seeds, amphibians, nestlings, and reptiles. They walk slowly through wetlands with their bill in the water, feeling for prey. When they feel something on their bill, they quickly snap it closed, swallowing the prey whole. To find prey they also push their feet up and down in the water or flick their wings to startle prey. Storks also visually search for prey, but more frequently use their bill to feel for it, especially in muddy waters.

Behavior: Wood Storks are social birds that forage in groups and nest in colonies. Small groups of storks forage in wetlands, frequently following each other one by one in a line. In the late afternoon, when temperatures rise, Wood Storks often take to the sky, soaring on thermals like raptors. They nest in tight colonies with egrets and herons and generally show little aggression, but if a bird or mammal threatens them, they may pull their neck in, fluff up their feathers, and walk toward the intruder. Threats are also met with bill clattering and jabbing. Despite the myth that Wood Storks mate for life, pairs form at the breeding colony and stay together only for a single breeding season. Males initially are hostile to the female, but once he accepts her into the territory he starts preening her and offering her sticks.

Conservation: Wood Storks are uncommon in the United States. Their populations remained stable from 1966 to 2015, according to the

Color Pattern: None

Fun Facts

-> Kids love water parks when it gets hot outside. Nestling birds don't really have that option, but to keep nestlings cool, Wood Stork parents regurgitate water over the nestlings. Maybe not as fun as a water park, but it does the trick.

-> Storks, mainly the White Stork of Europe, figure prominently in mythology. They are revered in Greek, Chinese, and European mythologies as good luck and harbingers of spring and birth. The association between storks and babies was popularized by Hans Christian Andersen's fable "The Storks," written in the nineteenth century featuring the White Stork of Europe.

-> The oldest recorded Wood Stork was at least 20 years, 2 months old. It had been banded in Georgia in 1994 and was identified by its band in the wild in South Carolina in 2014.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Massive wading bird with long legs and a long and heavy curved bill. White overall with black flight feathers. The head is bare and scaly.



Juvenile

Juveniles look similar to adults, but have a pale bill that darkens over time and grayish feathers on the neck that are slowly lost as they get older.



Adult

Massive wading bird with an enormous wingspan. White overall with black flight feathers. Often soars in thermals like raptors, with long neck extended

and long legs trailing behind.



Adult
None



Adult
Tall wading bird with a bald and scaly head and neck. White overall with black flight feathers.



Chick
None



Adult

Colonial nester in trees and shrubs in flooded woodlands or coastal sites.

Crested Caracara

Bird Characteristics

Scientific Name: *Caracara plancus*

Order: Falconiformes

Family Name: Falconidae

Conservation Status: Low Concern

Length: 19.3-22.8 in (49-58 cm)

Weight: 37.0-45.9 oz (1050-1300 g)

Wingspan: 48.0-49.2 in (122-125 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-4 eggs

Number of Broods: 1-2 broods

Egg Length: 2.1-2.7 in (5.3-6.8 cm)

Egg Width: 1.4-2.4 in (3.5-6 cm)

Incubation Period: 30-33 days

Nestling Period: 42-56 days

Egg Description: undefined

Condition at Hatching: Helpless and covered in down.

Nest Placement: Crested Caracaras generally build a nest in the tallest tree, cactus, shrub, or other structure around.

Nest Description: Males and females collect stems, twigs, and vines that they weave into a bulky nest with a shallow bowl. It takes the pair around 2 to 4 weeks to build a nest. Nests are approximately 2 feet across, but they frequently reuse and refurbish old nests, so they are often larger.

Bird Information

Habitat: Crested Caracaras nest and forage in open areas year-round, and are found from grasslands and deserts, to rangelands and scrubby areas, from sea level to around 10,000 feet. They tend to avoid areas with thick ground cover as it prevents them from getting a running start to take flight. In some areas, they may concentrate near sources of food such as slaughterhouses, henhouses, and dumps.

Food: Though Crested Caracaras are thought to eat primarily carrion they also eat live prey including insects, fish, reptiles, amphibians, birds, and mammals. Crested Caracaras are resourceful foragers and eat just about anything they can find. They wade in shallow waters to grab fish, dig up turtle eggs with their feet, and turn over debris with feet to uncover insects. Crested Caracaras also take advantage of disturbance such as fires or farming operations, grabbing fleeing animals or picking up those that have died. They watch for vultures and often join them to feed on carrion. Because Crested Caracaras cannot open large carcasses on their own they must wait for a vulture or larger animal to open it up. Unlike most raptors that pounce on prey, caracaras generally fly or run on the ground toward their prey until they overtake it.

Behavior: Crested Caracaras regularly walk or run on the ground. To get airborne they take a few running steps, lifting gently into the air. Once in flight, they fly with strong and slow wingbeats with their wings held flat, scanning for prey below. They keep territories year-round and are not social with other birds other than their mate during the breeding season. Breeding birds tend to be more aggressive toward other Crested Caracaras and vultures at carcass sites, but seem more tolerant outside the breeding season and even roost communally at times. Pairs form year-round bonds with each other and stay together for several years. Pairs and family groups frequently preen each other, a behavior known as allopreening. Pairs maintain strict territorial boundaries, quickly chasing away intruders from the nest site during the breeding season. They are faithful to the nest site and return to the same site and sometimes the same tree year after year.

Conservation: Crested Caracaras are not frequently encountered in the U.S., but they are common south of the border. In the United States, access to areas where they breed can affect researchers' ability to estimate population trends. Based on the best available data, the

Color Pattern: None

Fun Facts

- > A common subject of folklore and legends throughout Central and South America, the Crested Caracara is sometimes called the "Mexican eagle."
- > Although it looks like a long-legged hawk the Crested Caracara is actually a falcon.

-> The Crested Caracara is the only falcon that collects material to build a nest. Other falcons lay their eggs in an old nest built by another species or in a scrape on the ground.

-> The oldest recorded Crested Caracara was at least 21 years, 9 months old when it was identified by its band in 2015 in Florida. It was first banded in the same state in 1994.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Large, long-legged and flat-headed falcon. Adults have a black body and cap with a white neck and cheeks. Note yellow legs and bare orangish skin around the face.



Juvenile

Long-legged falcon with a long neck and flat head. Juveniles are brown instead of black with a whitish neck and cheeks.



Adult

In flight, note dark body and white neck, wingtips, and tail.



Juvenile

Juveniles are similar to adults, but are brown instead of black.



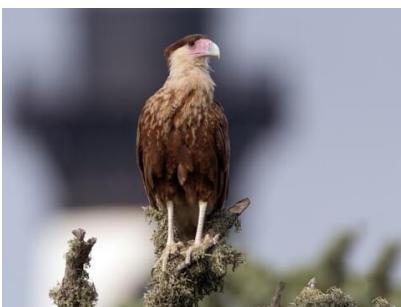
Adult

None



Adult

Regularly walks along the ground when foraging for insects, carrion, small mammals, reptiles, and amphibians. This has a full crop.



Juvenile

Perches on top of trees or posts that offer a good view of the surroundings.



Habitat

Found in open country, including pastureland, grasslands, cultivated areas, and semi-desert with scattered trees and posts.

American Kestrel

Bird Characteristics

Scientific Name: *Falco sparverius*

Order: Falconiformes

Family Name: Falconidae

Conservation Status: Low Concern

Length: 8.7-12.2 in (22-31 cm)

Weight: 2.8-5.8 oz (80-165 g)

Wingspan: 20.1-24.0 in (51-61 cm)

Basic Description: North America's littlest falcon, the American Kestrel packs a predator's fierce intensity into its small body. It's one of the most colorful of all raptors: the male's slate-blue head and wings contrast elegantly with his rusty-red back and tail; the female has the same warm reddish on her wings, back, and tail. Hunting for insects and other small prey in open territory, kestrels perch on wires or poles, or hover facing into the wind, flapping and adjusting their long tails to stay in place. Kestrels are declining in parts of their range; you can help them by putting up nest boxes.

Nesting Characteristics

Clutch Size: 4-5 eggs

Number of Broods: 1-2 broods

Egg Length: 1.2-1.5 in (3-3.8 cm)

Egg Width: 0.9-1.1 in (2.4-2.8 cm)

Incubation Period: 26-32 days

Nestling Period: 28-31 days

Egg Description: White to yellowish or light reddish-brown, mottled with violet-magenta, gray, or brown.

Condition at Hatching: Feeble, with sparse white down over pinkish skin; eyes partially open by first or second day.

Bird Information

Habitat: American Kestrels favor open areas with short ground vegetation and sparse trees. You'll find them in meadows, grasslands, deserts, parks, farm fields, cities, and suburbs. The southeastern U.S. form breeds in unusual longleaf pine sandhill habitat. When breeding, kestrels need access to at least a few trees or structures that provide appropriate nesting cavities. American Kestrels are attracted to many habitats modified by humans, including pastures and parkland, and are often found near areas of human activity including towns and cities.

Food: American Kestrels eat mostly insects and other invertebrates, as well as small rodents and birds. Common foods include grasshoppers, cicadas, beetles, and dragonflies; scorpions and spiders; butterflies and moths; voles, mice, shrews, bats, and small songbirds. American Kestrels also sometimes eat small snakes, lizards, and frogs. And some people have reported seeing American Kestrels take larger prey, including red squirrels and Northern Flickers.

Behavior: American Kestrels normally hunt by day. You may see a kestrel scanning for prey from the same perch all day long—or changing perches every few minutes. A kestrel pounces on its prey, seizing it with one or both feet; the bird may finish off a small meal right there on the ground, or carry larger prey back to a perch. During breeding season, males advertise their territory by repeatedly climbing and then diving, uttering a short series of

Conservation:

Color Pattern: American Kestrels are pale when seen from below and warm, rusty brown spotted with black above, with a black band near the tip of the tail. Males have slate-blue wings; females' wings are reddish brown. Both sexes have pairs of black vertical slashes on the sides of their pale faces—sometimes called a “mustache” and a “sideburn.”

Fun Facts

-> Sports fans in some cities get an extra show during night games: kestrels perching on light standards or foul poles, tracking moths and other insects in the powerful stadium light beams and catching these snacks on the wing. Some of their hunting flights have even made it onto TV sports coverage.

-> When nature calls, nestling kestrels back up, raise their tails, and squirt feces onto the walls of the nest cavity. The feces dry on the cavity walls and stay off the nestlings. The nest gets to be a smelly place, with feces on the walls and uneaten parts of small animals on the floor.

-> It can be tough being one of the smallest birds of prey. Despite their fierce lifestyle, American Kestrels end up as prey for larger birds such as Northern Goshawks, Red-tailed Hawks, Barn Owls, American Crows, and Sharp-shinned and Cooper's Hawks, as well as rat

snakes, corn snakes, and even fire ants.

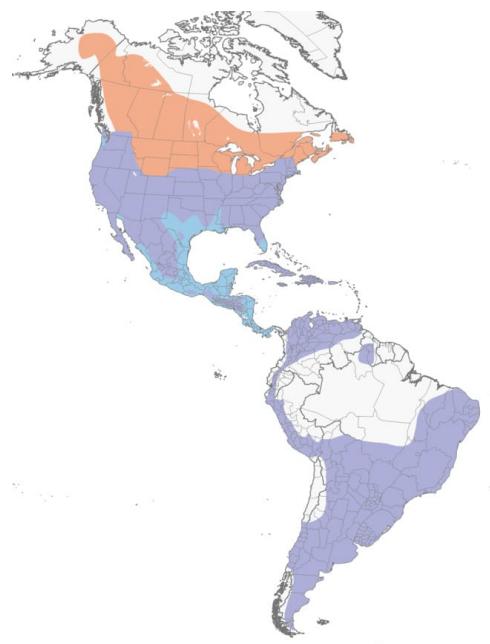
-> In winter in many southern parts of the range, female and male American Kestrels use different habitats. Females use the typical open habitat, and males use areas with more trees. This situation appears to be the result of the females migrating south first and establishing winter territories, leaving males to the more wooded areas.

-> Unlike humans, birds can see ultraviolet light. This enables kestrels to make out the trails of urine that voles, a common prey mammal, leave as they run along the ground. Like neon diner signs, these bright paths may highlight the way to a meal—as has been observed in the Eurasian Kestrel, a close relative.

-> Kestrels hide surplus kills in grass clumps, tree roots, bushes, fence posts, tree limbs, and cavities, to save the food for lean times or to hide it from thieves.

-> The oldest American Kestrel was a male and at least 14 years, 8 months old when he was found in Utah in 2001. He had been banded in the same state in 1987.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male (Northern)

Small falcon with a small head. Adult males are rusty above with slate-blue wings and two black slashes on the face. Often bobs its tail while perched.



Female (Northern)

Small falcon about the size of a Mourning Dove. Females are rusty overall with black barring on the wings and back. They have two black slashes on their face and a gray crown.



Adult male (Northern)

In flight, note long, pointed wings, slender body, and deep wing beats.

Males in flight have a thicker black band on the tail.



Female (Northern)
None



Adult male (Northern)
None



Adult male (Cuban)
Two color morphs of resident birds occur in Cuba: a pale and a dark morph.
This pale morph has more white on the face and is very pale below.



Adult male (Cuban)

Dark morph residents in Cuba have a dark rusty belly.



Female (Cuban)

Resident females in Cuba have rusty wings with black barring and pale underparts with rusty spots.



Adult male (Hispaniolan)

None



Adult male (South American)

None



Adult male (Northern)

Males and females have pairs of black vertical slashes on the sides of their pale faces—sometimes called a “mustache” and a “sideburn.”



Adult male (Northern)

None



Male and female (Northern)

None



Habitat

Found in open areas from deserts and grasslands to alpine meadows. Often seen perching on telephone wires along roadsides or fence posts.

Peregrine Falcon

Bird Characteristics

Scientific Name: *Falco peregrinus*

Order: Falconiformes

Family Name: Falconidae

Conservation Status: Low Concern

Length: 14.2-19.3 in (36-49 cm)

Weight: 18.7-56.4 oz (530-1600 g)

Wingspan: 39.4-43.3 in (100-110 cm)

Basic Description: Powerful and fast-flying, the Peregrine Falcon hunts medium-sized birds, dropping down on them from high above in a spectacular stoop. They were virtually eradicated from eastern North America by pesticide poisoning in the middle 20th century. After significant recovery efforts, Peregrine Falcons have made an incredible rebound and are now regularly seen in many large cities and coastal areas.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 2.0-2.0 in (5-5.2 cm)

Egg Width: 1.6-1.9 in (4-4.7 cm)

Incubation Period: 29-32 days

Nestling Period: 35-42 days

Egg Description: Pale creamy to brownish, dotted or blotched with brown, red, or purple.

Condition at Hatching: Helpless, covered in whitish down, with eyes closed, weighing about 1.5 ounces.

Bird Information

Habitat: The word "peregrine" means "wanderer" or "pilgrim," and Peregrine Falcons occur all over the world. In North America they breed in open landscapes with cliffs (or skyscrapers) for nest sites. They can be found nesting at elevations up to about 12,000 feet, as well as along rivers and coastlines or in cities, where the local Rock Pigeon populations offer a reliable food supply. In migration and winter you can find Peregrine Falcons in nearly any open habitat, but with a greater likelihood along barrier islands, mudflats, coastlines, lake edges, and mountain chains.

Food: Peregrine Falcons eat mostly birds, of an enormous variety—450 North American species have been documented as prey, and the number worldwide may be as many as 2,000 species. They have been observed killing birds as large as a Sandhill Crane, as small as a hummingbird, and as elusive as a White-throated Swift. Typical prey include shorebirds, ptarmigan, ducks, grebes, gulls, storm-petrels, pigeons, and songbirds including jays, thrushes, longspurs, buntings, larks, waxwings, and starlings. Peregrine Falcons also eat substantial numbers of bats. They occasionally pirate prey, including fish and rodents, from other raptors.

Behavior: Peregrine Falcons are very strong fliers and often reported to be the fastest bird in the world. Their average cruising flight speed is 24 to 33 mph, increasing to 67 mph when in pursuit of prey. When stooping, or dropping on prey with their wings closed, it's been calculated that Peregrine Falcons can achieve speeds of 238 mph. One researcher studied trained Peregrine Falcons while skydiving and described their body position while diving at 150 mph and 200 mph. When hunting, Peregrines start by watching from a high perch or by flapping slowly or soaring at great height. Stoops begin 300–3,000 feet above their prey and end either by grabbing the prey or by striking it with the feet hard enough to stun or kill it. They then catch the bird and bite through the neck to kill it. Peregrine Falcons do have other hunting methods, including level pursuit, picking birds out of large flocks, and occasionally even hunting on the ground. Though the Peregrine Falcon is an elite predator, it does have its own predators, including Gyrfalcons, eagles, Great Horned owls, and other Peregrines.

Conservation:

Color Pattern: Adults are blue-gray above with barred underparts and a dark head with thick sideburns. Juveniles are heavily marked, with vertical streaks instead of horizontal bars on the breast. Despite considerable age-related and geographic variation, an overall steely, barred look remains.

Fun Facts

-> People have trained falcons for hunting for over a thousand years, and the Peregrine Falcon was always one of the most prized birds. Efforts to breed the Peregrine in captivity and reestablish populations depleted during the DDT years were greatly assisted by the existence

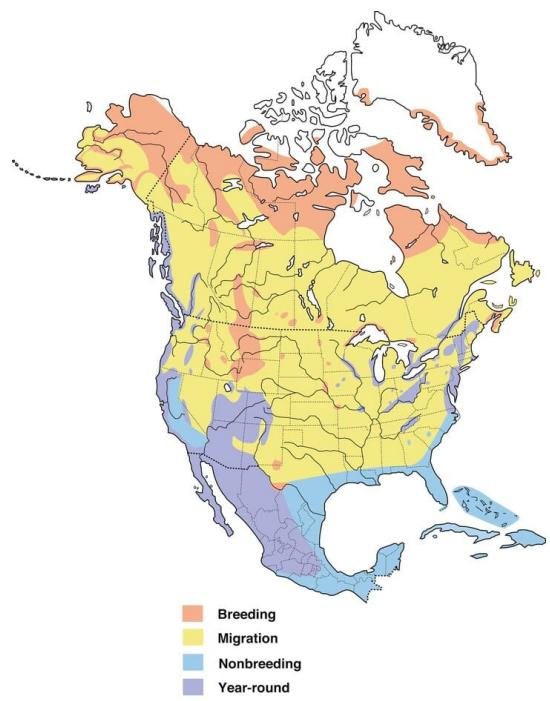
of methods of handling captive falcons developed by falconers.

-> The Peregrine Falcon is a very fast flier, averaging 40-55 km/h (25-34 mph) in traveling flight, and reaching speeds up to 112 km/h (69 mph) in direct pursuit of prey. During its spectacular hunting stoop from heights of over 1 km (0.62 mi), the peregrine may reach speeds of 320 km/h (200 mph) as it drops toward its prey.

-> The Peregrine Falcon is one of the most widespread birds in the world. It is found on all continents except Antarctica, and on many oceanic islands.

-> The oldest recorded Peregrine Falcon was at least 19 years, 9 months old, when it was identified by its band in Minnesota in 2012, the same state where it had been banded in 1992.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult
None



Juvenile
Juveniles have buffy underparts that are densely streaked with dark brown. Note brown mask and whisker, and paler eyebrow imparting a distinctive face pattern.



Adult
Long, pointed wings. In flight shows strongly checkered whitish and black underwings and flanks.



Juvenile

Long, pointed wings. In flight juveniles show boldly checked brown and whitish underwings, dense brown streaking on the underparts, and fine barring in the flight feathers and tail.



Immature

Long, pointed wings. In flight immatures show boldly checked brown and whitish underwings, dense brown streaking on the underparts, and fine barring in the flight feathers and tail.



Adult

Primarily hunts other birds, but will take a variety of prey.



Adult (Barbary)
None



Juvenile (Peale's)
None



Juvenile (Tundra)
None



Adult (Australian)
Dark gray above with a blackish helmet and a yellow eyering and cere. Bill small and strongly hooked. Underparts pale whitish, with fine dark barring on the flanks.



Immature (Mediterranean)
None



Adult (Red-capped)
None



Adult (Shaheen)
None



Immature (Shaheen)
None



Juvenile
None



Adult
Sometimes nests and roosts on tall buildings.



Adult
Sometimes nests and roosts on tall cliffs.

Osprey

Bird Characteristics

Scientific Name: *Pandion haliaetus*

Order: Accipitriformes

Family Name: Pandionidae

Conservation Status: Low Concern

Length: 21.3-22.8 in (54-58 cm)

Weight: 49.4-70.5 oz (1400-2000 g)

Wingspan: 59.1-70.9 in (150-180 cm)

Basic Description: Unique among North American raptors for its diet of live fish and ability to dive into water to catch them, Ospreys are common sights soaring over shorelines, patrolling waterways, and standing on their huge stick nests, white heads gleaming. These large, rangy hawks do well around humans and have rebounded in numbers following the ban on the pesticide DDT. Hunting Ospreys are a picture of concentration, diving with feet outstretched and yellow eyes sighting straight along their talons.

Nesting Characteristics

Clutch Size: 1-4 eggs

Number of Broods: 1 brood

Egg Length: 2.2-2.7 in (5.5-6.8 cm)

Egg Width: 1.6-2.0 in (4.2-5 cm)

Incubation Period: 36-42 days

Nestling Period: 50-55 days

Egg Description: Cream to pinkish cinnamon; wreathed and spotted with reddish brown.

Condition at Hatching: Capable of limited motion. Covered with down and with eyes open.

Nest Placement: Ospreys require nest sites in open surroundings for easy approach, with a wide, sturdy base and safety from ground predators (such as raccoons). Nests are usually built

on snags, treetops, or crotches between large branches and trunks; on cliffs or human-built platforms. Usually the male finds the site before the female arrives.

Nest Description: Osprey nests are built of sticks and lined with bark, sod, grasses, vines, algae, or flotsam and jetsam. The male usually fetches most of the nesting material—sometimes breaking dead sticks off nearby trees as he flies past—and the female arranges it. Nests on artificial platforms, especially in a pair's first season, are relatively small—less than 2.5 feet in diameter and 3–6 inches deep. After generations of adding to the nest year after year, Ospreys can end up with nests 10–13 feet deep and 3–6 feet in diameter—easily big enough for a human to sit in.

Bird Information

Habitat: Unable to dive to more than about three feet below the water's surface, Ospreys gravitate toward shallow fishing grounds, frequenting deep water only where fish school near the surface. Ospreys nest in a wide variety of locations, from Alaska to New England, Montana to Mexico, Carolina to California; their habitat includes almost any expanse of shallow, fish-filled water, including rivers, lakes, reservoirs, lagoons, swamps, and marshes. Whatever the location, Osprey nesting habitat must include an adequate supply of accessible fish within a maximum of about 12 miles of the nest; open, usually elevated nest sites free from predatory mammals such as raccoons, and a long enough ice-free season to allow the young to fledge.

Food: The Osprey is the only hawk on the continent that eats almost exclusively live fish. In North America, more than 80 species of live fresh- and saltwater fish account for 99 percent of the Osprey's diet. Captured fish usually measure about 6–13 inches in length and weigh one-third to two-thirds of a pound. The largest catch on record weighed about 2.5 pounds. On very rare occasions, Ospreys have been observed feeding on fish carcasses or on birds, snakes, voles, squirrels, muskrats, and salamanders. Ospreys probably get most of the water they need from the flesh of their prey, although there are reports of adults drinking on hot days.

Behavior: Adept at soaring and diving but not as maneuverable as other hawks, Ospreys keep to open areas, flying with stiff wingbeats in a steady, rowing motion. Primarily solitary birds, they usually roost alone or in small winter flocks of six to ten. Nesting Ospreys defend only the immediate area around their nest rather than a larger territory; they vigorously chase other Ospreys that encroach on their nesting areas. In breeding season, males perform an aerial "sky-dance," sometimes called "fish-flight." With dangling legs, often clasping a fish or nesting material in his talons, the male alternates periods of hovering with slow, shallow swoops as high as 600 feet or more above the nest site. Sustaining this display for 10 minutes or more, he utters repeated screaming calls while gradually descending in an undulating fashion to the nest.

Conservation: Ospreys are a conservation success story and overall their populations grew by 2.5% per year from 1966 to 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 500,000 with 21% spending some part of the year in the U.S., 28% in Canada, and 3% in Mexico. The species rates a 7 out of 20

on the Continental Concern Score. Osprey is not on the

Color Pattern: Ospreys are brown above and white below, and overall they are whiter than most raptors. From below, the wings are mostly white with a prominent dark patch at the wrists. The head is white with a broad brown stripe through the eye. Juveniles have white spots on the back and buffy shading on the breast.

Fun Facts

-> An Osprey may log more than 160,000 migration miles during its 15-to-20-year lifetime. Scientists track Ospreys by strapping lightweight satellite transmitters to the birds' backs. The devices pinpoint an Osprey's location to within a few hundred yards and last for 2-3 years. During 13 days in 2008,

-> Ospreys are unusual among hawks in possessing a reversible outer toe that allows them to grasp with two toes in front and two behind. Barbed pads on the soles of the birds' feet help them grip slippery fish. When flying with prey, an Osprey lines up its catch head first for less wind resistance.

-> Ospreys are excellent anglers. Over several studies, Ospreys caught fish on at least 1 in every 4 dives, with success rates sometimes as high as 70 percent. The average time they spent hunting before making a catch was about 12 minutes—something to think about next time you throw your line in the water.

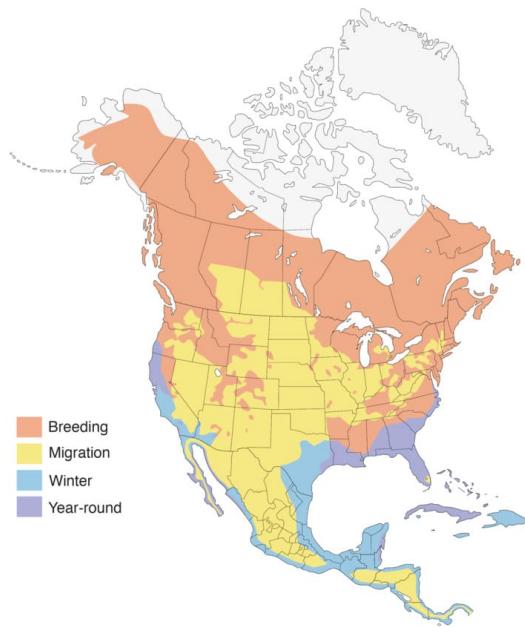
-> The Osprey readily builds its nest on manmade structures, such as telephone poles, channel markers, duck blinds, and nest platforms designed especially for it. Such platforms have become an important tool in reestablishing Ospreys in areas where they had disappeared. In some areas nests are placed almost exclusively on artificial structures.

-> Osprey eggs do not hatch all at once. Rather, the first chick emerges up to five days before the last one. The older hatchling dominates its younger siblings, and can monopolize the food brought by the parents. If food is abundant, chicks share meals in relative harmony; in times of scarcity, younger ones may starve to death.

-> The name "Osprey" made its first appearance around 1460, via the Medieval Latin phrase for "bird of prey" (

-> The oldest known Osprey was at least 25 years, 2 months old, and lived in Virginia. It was banded in 1973, and found in 1998.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (*carolinensis*)

Large. Brown back and wings contrast with the white underparts. Head white with a broad brown line through the eye, beak black and strongly hooked.



Adult (*haliaetus*)

None



Adult (Australasian)

None



Adult (*haliaetus*)
None



Adult (*carolinensis*)
Feeds exclusively on fish.



Adult (*ridgwayi*)
None



Adult (*carolinensis*)
In flight shows white belly and underwings contrasting with brown "wrists"
and strongly barred flight feathers.



Juvenile (*carolinensis*)

Juveniles have fine white spotting on the upperwings and back.



Juvenile (*carolinensis*)

None



Adult (*carolinensis*)

Can show a distinct crest, depending on wind direction and mood.



Adult (Australasian)

None



Adult (*carolinensis*)

Constructs prominent large stick nests on platforms or large trees.

Bald Eagle

Bird Characteristics

Scientific Name: *Haliaeetus leucocephalus*

Order: Accipitriformes

Family Name: Accipitridae

Conservation Status: Low Concern

Length: 27.9-37.8 in (71-96 cm)

Weight: 105.8-222.2 oz (3000-6300 g)

Wingspan: 80.3 in (204 cm)

Basic Description: The Bald Eagle has been the national emblem of the United States since 1782 and a spiritual symbol for native people for far longer than that. These regal birds aren't really bald, but their white-feathered heads gleam in contrast to their chocolate-brown body and wings. Look for them soaring in solitude, chasing other birds for their food, or gathering by the hundreds in winter. Once endangered by hunting and pesticides, Bald Eagles have flourished under protection.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 2.3-3.3 in (5.8-8.4 cm)

Egg Width: 1.9-2.5 in (4.7-6.3 cm)

Incubation Period: 34-36 days

Nestling Period: 56-98 days

Egg Description: Dull white, usually without markings.

Condition at Hatching: Covered with light-gray down; eyes brown; gape, legs, and skin pink.

Nest Placement: Bald Eagles nest in trees except in regions where only cliff faces or ground sites are available. They tend to use tall, sturdy conifers that protrude above the forest canopy,

providing easy flight access and good visibility. In southern parts of their range, Bald Eagles may nest in deciduous trees, mangroves, and cactus. It's unknown whether the male or the female takes the lead in selecting a nest site. Nests are typically built near the trunk, high up in the tree but below the crown (unlike Osprey nests).

Nest Description: Bald Eagles build some of the largest of all bird nests—typically 5 to 6 feet in diameter and 2 to 4 feet tall, and ranging in shape from cylindrical to conical to flat, depending on the supporting tree. Both sexes bring materials to the nest, but the female does most of the placement. They weave together sticks and fill in the cracks with softer material such as grass, moss, or cornstalks. The inside of the nest is lined first with lichen or other fine woody material, then with downy feathers and sometimes sprigs of greenery. Ground nests are built of whatever's available, such as kelp and driftwood near coastal shorelines. Nests can take up to three months to build, and may be reused (and added to) year after year.

Bird Information

Habitat: Bald Eagles typically nest in forested areas adjacent to large bodies of water, staying away from heavily developed areas when possible. Bald Eagles are tolerant of human activity when feeding, and may congregate around fish processing plants, dumps, and below dams where fish concentrate. For perching, Bald Eagles prefer tall, mature coniferous or deciduous trees that afford a wide view of the surroundings. In winter, Bald Eagles can also be seen in dry, open uplands if there is access to open water for fishing.

Food: Fish of many kinds constitute the centerpiece of the Bald Eagle diet (common examples include salmon, herring, shad, and catfish), but these birds eat a wide variety of foods depending on what's available. They eat birds, reptiles, amphibians, invertebrates such as crabs, and mammals including rabbits and muskrats. They take their prey live, fresh, or as carrion. Bald Eagles sometimes gorge, ingesting a large amount of food and digesting it over several days. They can also survive fasting for many days, even weeks.

Behavior: Bald Eagles are powerful fliers—soaring, gliding, and flapping over long distances. In one of several spectacular courtship displays, a male and female fly high into the sky, lock talons, and cartwheel downward together, breaking off at the last instant to avoid crashing to earth. Bald Eagles frequently harass birds including Ospreys and other eagles to steal their food, and occasionally do the same to mammals such as river or sea otters. On the ground, Bald Eagles walk in an awkward, rocking gait. Capable of floating, a Bald Eagle may use its wings to "row" over water too deep for wading. Though often solitary, Bald Eagles congregate by the scores or even the hundreds at communal roosts and feeding sites, particularly in winter. These groups can be boisterous, with birds jostling for position and bickering over prey. During breeding season you may see Bald Eagles defending their territories from a variety of intruders, including raptors and ravens, coyotes and foxes. When feeding at carcasses, Bald Eagles may push Black and Turkey Vultures out of the way; other species including ravens, coyotes, bobcats, and dogs sometimes hold their own. Bald Eagles are often harassed or chased by their fellow raptors and by songbirds including blackbirds, crows, and flycatchers.

Conservation: The Bald Eagle's recovery is a spectacular conservation success story, and numbers have increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 250,000, with 88 percent spending some part of the year in the U.S., 31 percent in Canada, and 8 percent in Mexico. The species rates a 9 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Adult Bald Eagles have white heads and tails with dark brown bodies and wings. Their legs and bills are bright yellow. Immature birds have mostly dark heads and tails; their brown wings and bodies are mottled with white in varying amounts. Young birds attain adult plumage in about five years.

Fun Facts

-> Rather than do their own fishing, Bald Eagles often go after other creatures' catches. A Bald Eagle will harass a hunting Osprey until the smaller raptor drops its prey in midair, where the eagle swoops it up. A Bald Eagle may even snatch a fish directly out of an Osprey's talons. Fishing mammals (even people sometimes) can also lose prey to Bald Eagle piracy.

-> Had Benjamin Franklin prevailed, the U.S. emblem might have been the Wild Turkey. In 1784, Franklin disparaged the national bird's thieving tendencies and its vulnerability to harassment by small birds. "For my own part," he wrote, "I wish the Bald Eagle had not been chosen the Representative of our Country. He is a Bird of bad moral Character. He does not get his Living honestly. ... Besides he is a rank Coward: The little

-> Sometimes even the national bird has to cut loose. Bald Eagles have been known to play with plastic bottles and other objects pressed into service as toys. One observer witnessed six Bald Eagles passing sticks to each other in midair.

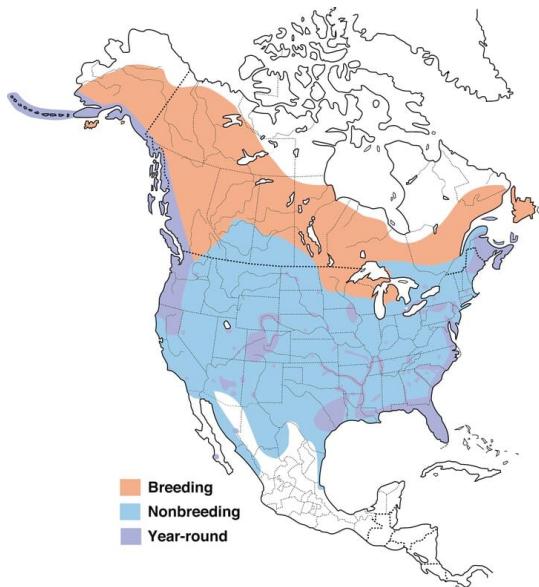
-> The largest Bald Eagle nest on record, in St. Petersburg, Florida, was 2.9 meters in diameter and 6.1 meters tall. Another famous nest—in Vermilion, Ohio—was shaped like a wine glass and weighed almost two metric tons. It was used for 34 years until the tree blew down.

-> Immature Bald Eagles spend the first four years of their lives in nomadic exploration of vast territories and can fly hundreds of miles per day. Some young birds from Florida have wandered north as far as Michigan, and birds from California have reached Alaska.

-> Bald Eagles occasionally hunt cooperatively, with one individual flushing prey towards another.

-> Bald Eagles can live a long time. The oldest recorded bird in the wild was at least 38 years old when it was hit and killed by a car in New York in 2015. It had been banded in the same state in 1977.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Very large raptor with long, broad wings. Dark brown body contrasts with its white head and tail.



Juvenile

Juveniles have a brown body with brown and white mottled wings. The tail is also mottled with a dark band at the tip.



Juvenile

Amount of white in the wings is variable on juveniles.



Second year
None



Adult
When perched appears very large, with brown body and contrasting white head and bright yellow bill.



Adult
Will hunt for fish when near water.



Fourth year
Fourth year birds look like adults with some brown feathers on the otherwise white head.



Second year

Second year birds are strongly mottled brown and white.



Juvenile

The amount of white feathering can be highly variable on juveniles and second year birds.



Second year

Second year birds have a mostly white belly, with some brown mottling, a brown chest, and a broad brown mask on the face.



Adult and immature

Will form groups during the nonbreeding season, when different age classes can be seen together.



Adult

Constructs enormous stick nests, usually in large trees.

Northern Harrier

Bird Characteristics

Scientific Name: *Circus hudsonius*

Order: Accipitriformes

Family Name: Accipitridae

Conservation Status: Low Concern

Length: 18.1-19.7 in (46-50 cm)

Weight: 10.6-26.5 oz (300-750 g)

Wingspan: 40.2-46.5 in (102-118 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 4-5 eggs

Number of Broods: 1 brood

Egg Length: 1.6-2.1 in (4.1-5.3 cm)

Egg Width: 1.3-1.6 in (3.2-4 cm)

Incubation Period: 28-36 days

Nestling Period: 14 days

Egg Description: Dull white, usually with no markings.

Condition at Hatching: Helpless and covered with short white down.

Nest Placement: Either the male or the female chooses the nest site, which is on the ground and usually in a dense clump of vegetation such as willows, grasses, sedges, reeds, bulrushes, and cattails.

Nest Description: Males sometimes start building a nest platform and the female finishes it. Later, both sexes bring in nesting material but the female takes charge of arranging them to form the nest. The nest platform is made with thick-stalked plants like cattails, alders, and

willows. The inner lining uses grasses, sedges, and rushes. Nest building takes 1–2 weeks. The outside of the nest measures 16–24 inches wide by 1.5–8 inches high, while the interior is 8–10 inches wide by 2–4 inches deep.

Bird Information

Habitat: Breeding Northern Harriers are most common in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. They breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrubsteppe, and riverside woodlands across Canada and the northern United States. Western populations tend to breed in dry upland habitats, while northeastern and Midwestern populations tend to breed in wetlands. During winter they use a range of habitats with low vegetation, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, old fields, estuaries, open floodplains, and marshes.

Food: Northern Harriers forage on the wing, coursing low over the ground. Unlike other hawks, they rely heavily on their sense of hearing to capture prey. In the breeding season they eat small mammals, reptiles, amphibians, and birds. During winter, harriers in the northern part of the range feed almost exclusively on meadow voles; they also eat deer mice, house mice, shrews, rabbits, and songbirds (including meadowlarks, Northern Cardinals, and Song Sparrows). Harriers wintering in the southern part of their range eat cotton rats, house mice, harvest mice, rice rats, shrews, and songbirds.

Behavior: Northern Harriers usually fly slowly and low over the ground, their wings held in a V-shape as they glide. Most males have either one mate or two mates at a time, but some have up to five mates when food is abundant. Each male courts females and advertises his territory by performing sky-dancing displays: undulating, rollercoaster-like flights up to 1,000 feet off the ground, sometimes covering more than half a mile. Although they don't protect large territories, both males and females vigorously defend the nest itself. Nesting females usually chase away other females, and males chase other males. Females incubate eggs and brood chicks, while males provide most of the food for the females and nestlings. Nest predators include coyotes, feral dogs, striped skunks, raccoons, red foxes, American Crows, Common Ravens, and Great Horned Owls. Livestock and deer sometimes trample eggs and nestlings underfoot. Juvenile harriers play (and hone their hunting skills) by pouncing on inanimate objects like vole-sized corncobs. In winter, Northern Harriers roost in groups on the ground, sometimes with Short-eared Owls. The larger females are dominant to the males.

Conservation: Northern Harriers are fairly common, but their populations are declining. The North American Breeding Bird Survey records a steady decline of over 1% per year from 1966 to 2014, resulting in a cumulative loss of 47%, with Canadian populations declining more than U.S. populations. Partners in Flight estimates the global breeding population at 1.4 million, with 35% spending some part of the year in the U.S., 17% in Canada, and 10% in Mexico. They rate an 11 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Males are gray above and whitish below with black wingtips, a dark trailing edge

to the wing, and a black-banded tail. Females and immatures are brown, with black bands on the tail. Adult females have whitish undersides with brown streaks, whereas immatures are buffy, with less streaking. All Northern Harriers have a white rump patch that is obvious in flight.

Fun Facts

-> Northern Harriers are the most owl-like of hawks (though they're not related to owls). They rely on hearing as well as vision to capture prey. The disk-shaped face looks and functions much like an owl's, with stiff facial feathers helping to direct sound to the ears.

-> Juvenile males have pale greenish-yellow eyes, while juvenile females have dark chocolate brown eyes. The eye color of both sexes changes gradually to lemon yellow by the time they reach adulthood.

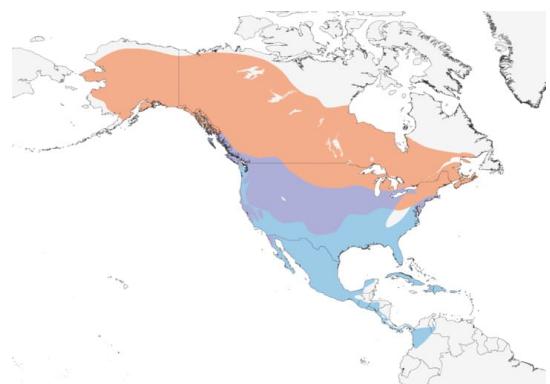
-> Male Northern Harriers can have as many as five mates at once, though most have only one or two. The male provides most of the food for his mates and their offspring, while the females incubate the eggs and brood the chicks.

-> Northern Harriers hunt mostly small mammals and small birds, but they are capable of taking bigger prey like rabbits and ducks. They sometimes subdue larger animals by drowning them.

-> Northern Harrier fossils dating from 11,000 to 40,000 years ago have been unearthed in northern Mexico.

-> The oldest Northern Harrier on record was a female, and at least 15 years, 4 months old when she was captured and released in 2001 by a bird bander in Quebec. She had been banded in New Jersey in 1986.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Medium-sized raptor with long, broad wings, a long tail, and a characteristic white rump patch. Adult males are grayish above with a dark trailing edge on the wings.



Adult female

Often flies with its broad wings held in a "V". Note long tail. Females are pale below with brown streaking.



Immature

Immature birds have an unstreaked cinnamon wash on their belly and a

darker brown head. Their flight feathers and tail are banded.



Adult male

From below adult males are pale with black wingtips and black-tipped secondaries. Often hovers above prey before pouncing.



Adult female

Both males and females have a distinctive white rump patch.



Female/immature

Northern Harriers have an owl-like face that helps them detect prey by ear.



Habitat

Found in open areas such as grasslands, marshes, and fields soaring low over the ground.

Cooper's Hawk

Bird Characteristics

Scientific Name: *Accipiter cooperii*

Order: Accipitriformes

Family Name: Accipitridae

Conservation Status: Low Concern

Length: 14.6-15.3 in (37-39 cm)

Weight: 7.8-14.5 oz (220-410 g)

Wingspan: 24.4-35.4 in (62-90 cm)

Basic Description: Among the bird world's most skillful fliers, Cooper's Hawks are common woodland hawks that tear through cluttered tree canopies in high speed pursuit of other birds. You're most likely to see one prowling above a forest edge or field using just a few stiff wingbeats followed by a glide. With their smaller lookalike, the Sharp-shinned Hawk, Cooper's Hawks make for famously tricky identifications. Both species are sometimes unwanted guests at bird feeders, looking for an easy meal (but not one of sunflower seeds).

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1 brood

Egg Length: 1.7-2.0 in (4.4-5.1 cm)

Egg Width: 1.4-1.6 in (3.5-4 cm)

Incubation Period: 30-36 days

Nestling Period: 27-34 days

Egg Description: Pale blue to bluish white.

Condition at Hatching: Covered in white down and weighing just 28 grams or 1 ounce, but able to crawl around nest.

Nest Placement: Cooper's Hawks build nests in pines, oaks, Douglas-firs, beeches, spruces,

and other tree species, often on flat ground rather than hillsides, and in dense woods. Nests are typically 25-50 feet high, often about two-thirds of the way up the tree in a crotch or on a horizontal branch.

Nest Description: Males typically build the nest over a period of about two weeks, with just the slightest help from the female. Nests are piles of sticks roughly 27 inches in diameter and 6-17 inches high with a cup-shaped depression in the middle, 8 inches across and 4 inches deep. The cup is lined with bark flakes and, sometimes, green twigs.

Bird Information

Habitat: Cooper's Hawks are forest and woodland birds, but our leafy suburbs seem nearly as good. These lanky hawks are a regular sight in parks, quiet neighborhoods, over fields, at backyard feeders, and even along busy streets if there are trees around.

Food: Cooper's Hawks mainly eat birds. Small birds are safer around Cooper's Hawks than medium-sized birds: studies list European Starlings, Mourning Doves, and Rock Pigeons as common targets along with American Robins, several kinds of jays, Northern Flicker, and quail, pheasants, grouse, and chickens. Cooper's Hawks sometimes rob nests and also eat chipmunks, hares, mice, squirrels, and bats. Mammals are more common in diets of Cooper's Hawks in the West.

Behavior: Cooper's Hawks show the classic accipiter flight style: a few stiff wingbeats followed by short glides. But in pursuit of prey their flight becomes powerful, quick, and very agile, allowing the bird to thread its way through tree branches at top speed. Courting birds display by flying with slow wingbeats, then gliding with wings held in a V. Males make a bowing display to females after pairing and before beginning to build the nest.

Conservation: Cooper's Hawk populations appear to have been stable between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a breeding population of 700,000, with 89% spending at least some part of the year in the U.S., 22% in Mexico, and 8% breeding in Canada. The species rates an 7 out of 20 on the Continental Concern Score. Cooper's Hawk is not on the

Color Pattern: Adults are steely blue-gray above with warm reddish bars on the underparts and thick dark bands on the tail. Juveniles are brown above and crisply streaked with brown on the upper breast, giving them a somewhat hooded look compared with young Sharp-shinned Hawks' more diffuse streaking.

Fun Facts

-> Dashing through vegetation to catch birds is a dangerous lifestyle. In a study of more than 300 Cooper's Hawk skeletons, 23 percent showed old, healed-over fractures in the bones of

the chest, especially of the furcula, or wishbone.

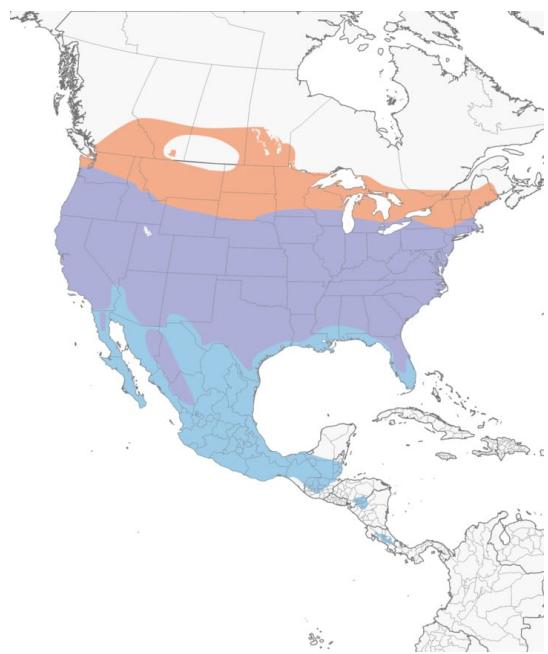
-> A Cooper's Hawk captures a bird with its feet and kills it by repeated squeezing. Falcons tend to kill their prey by biting it, but Cooper's Hawks hold their catch away from the body until it dies. They've even been known to drown their prey, holding a bird underwater until it stopped moving.

-> Once thought averse to towns and cities, Cooper's Hawks are now fairly common urban and suburban birds. Some studies show their numbers are actually higher in towns than in their natural habitat, forests. Cities provide plenty of Rock Pigeon and Mourning Dove prey. Though one study in Arizona found a downside to the high-dove diet: Cooper's Hawk nestlings suffered from a parasitic disease they acquired from eating dove meat.

-> Life is tricky for male Cooper's Hawks. As in most hawks, males are significantly smaller than their mates. The danger is that female Cooper's Hawks specialize in eating medium-sized birds. Males tend to be submissive to females and to listen out for reassuring call notes the females make when they're willing to be approached. Males build the nest, then provide nearly all the food to females and young over the next 90 days before the young fledge.

-> The oldest recorded Cooper's Hawk was a male and at least 20 years, 4 months old. He had been banded in California in 1986, and was found in Washington in 2006.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Upright posture with a long tail. Bluish-gray upperparts with a contrasting black cap and a red eye. Underparts are pale with dense reddish barring. Bill is fairly small and strongly hooked.



Adult

Bluish-gray upperparts contrast with the paler cheek and dark cap. Note the long rounded tail with a wide white terminal band.



Immature

None



Immature
None



Immature
Upright posture with a long tail. Immatures have brown upperparts that contrast with white underparts that have strong brown streaking. Note the yellow eye.



Adult
In flight shows relatively short, rounded wings and a long, rounded tail with thick bands. Note that its head projects well beyond its wings.



Immature

In flight shows relatively short, rounded wings and a long, rounded tail with thick bands. Note the wide white terminal band on tail, which can sometimes help with identification.



Immature

In flight from above, upperparts on immatures are brown with paler barring in the wings and tail. Note the larger head that sticks out well beyond the wings.



Adult

From some angles white undertail contrasts with the reddish barred underparts and bluish-gray upperparts.

Red-tailed Hawk

Bird Characteristics

Scientific Name: *Buteo jamaicensis*

Order: Accipitriformes

Family Name: Accipitridae

Conservation Status: Low Concern

Length: 17.7-22.1 in (45-56 cm)

Weight: 24.3-45.9 oz (690-1300 g)

Wingspan: 44.9-52.4 in (114-133 cm)

Basic Description: This is probably the most common hawk in North America. If you've got sharp eyes you'll see several individuals on almost any long car ride, anywhere. Red-tailed Hawks soar above open fields, slowly turning circles on their broad, rounded wings. Other times you'll see them atop telephone poles, eyes fixed on the ground to catch the movements of a vole or a rabbit, or simply waiting out cold weather before climbing a thermal updraft into the sky.

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1 brood

Egg Length: 2.2-2.7 in (5.5-6.8 cm)

Egg Width: 1.7-2.0 in (4.3-5 cm)

Incubation Period: 28-35 days

Nestling Period: 42-46 days

Egg Description: White or buffy, blotched or speckled with buff, brown, or purple.

Condition at Hatching: Tiny and helpless, unable to raise head, and weighing about 2 ounces.

Nest Placement: Red-tailed Hawks typically put their nests in the crowns of tall trees where they have a commanding view of the landscape. They may also nest on a cliff ledge or on

artificial structures such as window ledges and billboard platforms.

Nest Description: Both members build the nest, or simply refurbish one of the nests they've used in previous years. Nests are tall piles of dry sticks up to 6.5 feet high and 3 feet across. The inner cup is lined with bark strips, fresh foliage, and dry vegetation. Construction takes 4-7 days.

Bird Information

Habitat: Red-tailed Hawks occupy just about every type of open habitat on the continent. This includes desert, scrublands, grasslands, roadsides, fields and pastures, parks, broken woodland, and (in Mexico) tropical rainforest.

Food: Mammals make up the bulk of most Red-tailed Hawk meals. Frequent victims include voles, mice, wood rats, rabbits, snowshoe hares, jackrabbits, and ground squirrels. The hawks also eat birds, including pheasants, bobwhite, starlings, and blackbirds; as well as snakes and carrion. Individual prey items can weigh anywhere from less than an ounce to more than 5 pounds.

Behavior: Red-tailed Hawks are large, sharp-taloned birds that can be aggressive when defending nests or territories. They frequently chase off other hawks, eagles, and Great Horned Owls. Courting birds fly with legs hanging beneath them, or chase and swoop after each other, sometimes locking talons (see Cool Facts). Mated pairs typically stay together until one of the pair dies.

Conservation: Red-tailed Hawk populations increased throughout much of their range between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 2.3 million with 75% spending some part of the year in the U.S., 24% in Canada, and 21% in Mexico. The species rates a 6 out of 20 on the Continental Concern Score. Red-tailed Hawk is not on the

Color Pattern: Most Red-tailed Hawks are rich brown above and pale below, with a streaked belly and, on the wing underside, a dark bar between shoulder and wrist. The tail is usually pale below and cinnamon-red above, though in young birds it's brown and banded. "Dark-morph" birds are all chocolate-brown with a warm red tail. "Rufous-morph" birds are reddish-brown on the chest with a dark belly.

Fun Facts

-> The Red-tailed Hawk has a thrilling, raspy scream that sounds exactly like a raptor should sound. At least, that's what Hollywood directors seem to think. Whenever a hawk or eagle appears onscreen, no matter what species, the shrill cry on the soundtrack is almost always a Red-tailed Hawk.

-> Birds are amazingly adapted for life in the air. The Red-tailed Hawk is one of the largest birds you'll see in North America, yet even the biggest females weigh in at only about 3 pounds. A similar-sized small dog might weigh 10 times that.

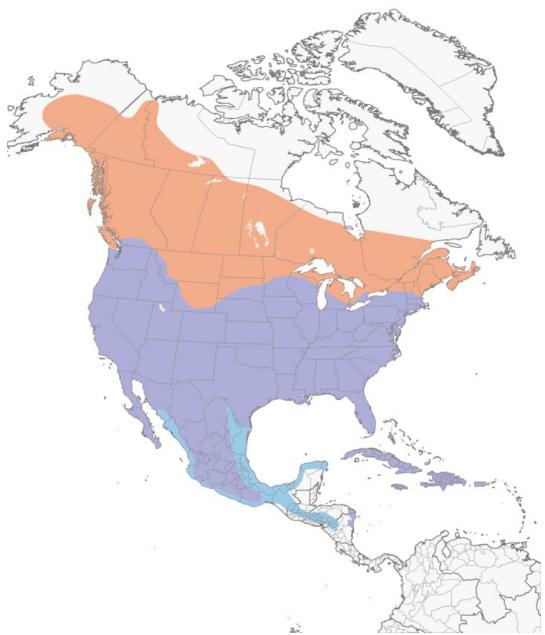
-> The "Harlan's Hawk" breeds in Alaska and northwestern Canada, and winters on the southern Great Plains. This very dark form of the Red-tailed Hawk has a marbled white, brown, and gray tail instead of a red one. It's so distinctive that it was once considered a separate species, until ornithologists discovered many individuals that were intermediate between Harlan's and more typical Red-tailed Hawks.

-> Courting Red-tailed Hawks put on a display in which they soar in wide circles at a great height. The male dives steeply, then shoots up again at an angle nearly as steep. After several of these swoops he approaches the female from above, extends his legs, and touches her briefly. Sometimes, the pair grab onto one other, clasp talons, and plummet in spirals toward the ground before pulling away.

-> Red-tailed Hawks have been seen hunting as a pair, guarding opposite sides of the same tree to catch tree squirrels.

-> The oldest known wild Red-tailed Hawk was at least 30 years, 8 months old when it was found in Michigan in 2011, the same state where it had been banded in 1981.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (borealis)

Large with a red tail. Mostly pale below, with a darker belly band, wing tips, and edges of the flight feathers. Head brown with a white throat.



Adult (borealis)

Large with a red tail. Mostly brownish above with variable white in the wing coverts and lower back forming a pale 'V' on the upperwings. Eastern subspecies (borealis) tends to have plain red tail with neat black band near the tip.



Adult light morph (calurus/alascensis)

Western subspecies (*calurus*) differs in being more richly colored below on average, and more heavily-marked. The body plumage is polymorphic in the western subspecies, occurring in light (as here), intermediate, and dark morphs.



Adult light morph (*calurus/alascensis*)

The red tail is more obvious when viewed from above. Otherwise all dark brown with light barring in the flight feathers.



Adult dark morph (*calurus/alascensis*)

Some dark morphs are strongly reddish-brown below, especially on the chest.



Adult dark morph (*calurus/alascensis*)

Dark chocolatey-brown body and wing linings, with paler flight feathers lightly barred and contrasting with dark wing tips and edges to the flight feathers.



Adult light morph (*abieticola*)

Large with a red tail. Mostly pale below, with a heavy darker belly band. Dark wing tips and edges to flight feathers contrast with paler wings.



Adult dark morph (Harlan's)

Chocolatey-brown below, with lightly barred whitish flight feathers, dark wing tips and edges to the flight feathers, and a mostly whitish tail with a dark tip.



Adult light morph (Harlan's)

Mostly pale below with a heavy dark belly band, dark wing tips and edges to the flight feathers, and dark tips to a white tail.



Adult dark morph (Harlan's)

Adult Harlan's tail pattern highly variable above, characterized by white, gray, and black mottling and longitudinal streaking. Some lack red altogether.



Adult (Krider's)

Subspecies characterized by extremely lightly-marked underparts with faint patagial mark (often rufous toned) and faint to absent belly band.



Adult (Krider's)

Subspecies typically has rufous-toned upperparts with extensive white

spangling, and whitish-based tail with red to pinkish tip.



Adult (*costaricensis*)

Birds in Costa Rica and Panama have rufous bellies and wing linings, pale flight feathers contrasting with dark wingtips and flight feather edges, and chocolatey-brown head and shoulders.



Juvenile light morph (*calurus/alascensis*)

Heavily streaked below, with bold barring on the wings, dark wingtips, and a lightly barred pale tail.



Juvenile dark morph (*calurus/alascensis*)

Very heavily streaked below, with darkly checkered wing linings, boldly barred wings with dark wingtips, and a finely barred brown and white tail.



Juvenile dark morph (Harlan's)

Very heavily streaked below, with darkly checkered wing linings, boldly barred wings with barred wingtips, and a finely barred brown and white tail.



Juvenile (Krieger's)

Very pale, almost white head. Brown above mixed with white feathering, and finely barred wings and tail.



Adult (borealis)

Pale below with light reddish-brown streaking on the chest and a bold brown belly band. Head brown with some darker markings. Red tail often not visible on perched birds.



Juvenile (*borealis*)

Pale below with a broad and bold brown belly band. Head brown mixed with white feathering. Tail barred brown and whitish.



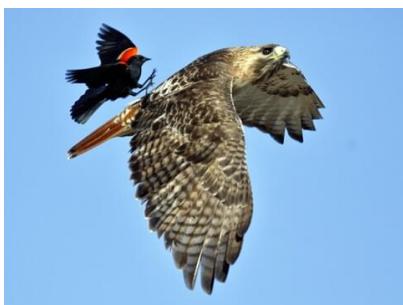
Juvenile (Krider's)

None



Adult dark morph (*calurus/alascensis*)

Eats a wide variety of prey, including snakes, and occurs in many different habitats.



Adult (*borealis*)

Often mobbed by smaller birds, especially during the nesting season.



Habitat

Occurs in a wide variety of habitats, and often nests on or near cliffs.

Golden Eagle

Bird Characteristics

Scientific Name: *Aquila chrysaetos*

Order: Accipitriformes

Family Name: Accipitridae

Conservation Status: Low Concern

Length: 27.6-33.1 in (70-84 cm)

Weight: 105.8-216.1 oz (3000-6125 g)

Wingspan: 72.8-86.6 in (185-220 cm)

Basic Description: The Golden Eagle is one of the largest, fastest, nimblest raptors in North America. Lustrous gold feathers gleam on the back of its head and neck; a powerful beak and talons advertise its hunting prowess. You're most likely to see this eagle in western North America, soaring on steady wings or diving in pursuit of the jackrabbits and other small mammals that are its main prey. Sometimes seen attacking large mammals, or fighting off coyotes or bears in defense of its prey and young, the Golden Eagle has long inspired both reverence and fear.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 2.7-3.4 in (6.8-8.6 cm)

Egg Width: 1.9-2.5 in (4.9-6.4 cm)

Incubation Period: 41-45 days

Nestling Period: 45-81 days

Egg Description: White to cream or pale pink, usually with small brown blotches.

Condition at Hatching: Weak, weighing about 3 oz; partially covered with grayish-white down; eyes partially open.

Nest Placement: Golden Eagles usually nest on cliffs. They may also build nests in trees, on the ground, or in human-made structures, including windmills, observation towers, nesting platforms, and electrical transmission towers. Constructed near hunting grounds, Golden Eagle nests often command a wide view of their surroundings.

Nest Description: Starting 1–3 months before egg-laying, a Golden Eagle pair builds a nest of sticks and vegetation—sometimes also including bones, antlers, and human-made objects such as wire and fence posts. They line the nest with locally available vegetation, such as yucca, grasses, bark, leaves, mosses and lichens, or conifer boughs. They often include aromatic leaves, possibly to keep insect pests at bay. Resident birds continue adding nest material year-round, reusing the same nest for multiple seasons and sometimes alternating between two nests. Nests are huge, averaging some 5-6 feet wide, and 2 feet high, enclosing a bowl about 3 feet by 2 feet deep. The largest Golden Eagle nest on record was 20 feet tall, 8.5 feet wide.

Bird Information

Habitat: Golden Eagles live in open and semiopen country featuring native vegetation across most of the Northern Hemisphere. They avoid developed areas and uninterrupted stretches of forest. They are found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Golden Eagles nest on cliffs and steep escarpments in grassland, chapparal, shrubland, forest, and other vegetated areas.

Food: Golden Eagles prey mainly on small to medium-sized mammals, including hares, rabbits, ground squirrels, prairie dogs, and marmots. Black-tailed jackrabbits are a key prey species throughout much of their range. These eagles are also capable of taking larger bird and mammal prey, including cranes, swans, deer, and domestic livestock. They have even been observed killing seals, mountain goats, bighorn sheep, pronghorn, coyotes, badgers, and bobcats. In addition to live prey, Golden Eagles often feed on carrion, following crows and other scavengers to a meal. They also catch fish, rob nests, and steal food from other birds.

Behavior: Golden Eagles possess astonishing speed and maneuverability for their size. Diving from great heights, they have been clocked at close to 200 miles per hour. In an undulating territorial and courtship display known as “sky-dancing,” a Golden Eagle performs a rapid series of up to 20 steep dives and upward swoops, beating its wings three or four times at the top of each rise. In “pendulum flight,” the eagle dives and rises, then turns over to retrace its path. Single birds and pairs engage in aerial play with objects such as sticks or dead prey, carrying these items high into the sky, then dropping and retrieving them. In addition to attacking prey from the air, Golden Eagles sometimes hunt on the ground, wildly flapping as they run. Mated pairs hunt jackrabbits cooperatively during breeding season—one eagle diverting the animal’s attention while the second makes the kill.

Conservation: Golden Eagle populations appear to have been stable between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates their global breeding population to be 300,000 with 35% spending some part of the year in the U.S., 15%

in Canada, and 3% in Mexico. The species rates a 10 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Adult Golden Eagles are dark brown with a golden sheen on the back of the head and neck. For their first several years of life, young birds have neatly defined white patches at the base of the tail and in the wings.

Fun Facts

-> Although capable of killing large prey such as cranes, wild ungulates, and domestic livestock, the Golden Eagle subsists primarily on rabbits, hares, ground squirrels, and prairie dogs.

-> The amount of white in the wings of a young Golden Eagle varies among individuals, and a few lack white in the wings entirely.

-> The Golden Eagle is the most common official national animal in the world—it's the emblem of Albania, Germany, Austria, Mexico, and Kazakhstan.

-> Because their common prey animals (mammals) don't tend to ingest pesticides, Golden Eagles have escaped the harm sustained by fish-eating or bird-eating raptors from DDT and related chemicals. When these pesticides thinned the eggshells of many birds of prey, Golden Eagles' shells retained normal thickness. Pesticide concentrations in their blood stayed below levels known to cause reproductive problems.

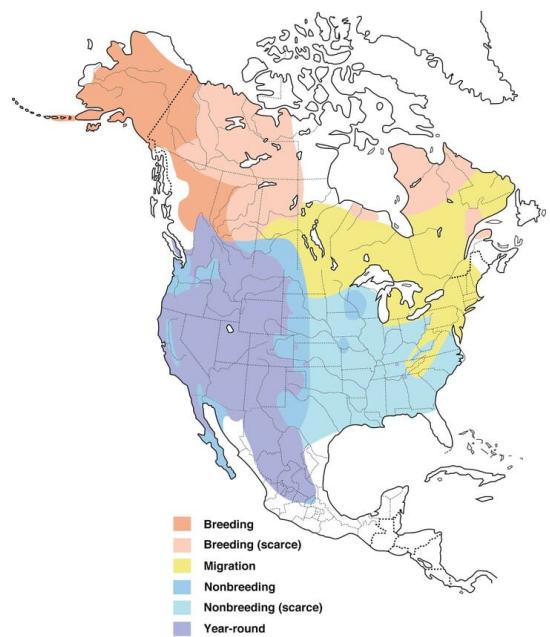
-> Biologists, engineers, and government officials have cooperated in developing and publicizing power-pole designs that reduce raptor electrocutions—caused when the large birds' wings or feet accidentally touch two lines and form a circuit. Since the early 1970s, utility companies have modified poles to prevent eagle electrocutions. And some new power lines in nonurban areas have been built to “raptor-safe” construction standards.

-> “Hacking,” an age-old falconry technique, is helping rebuild Golden Eagle populations. Humans feed caged, lab-reared nestlings at a nestlike hack site until the birds reach 12 weeks old, when the cage is opened and they begin feeding themselves. The fledglings continue to receive handouts from their hack-site caretakers for several weeks, until they gain full independence in the wild.

-> The Rough-legged Hawk, the Ferruginous Hawk, and the Golden Eagle are the only American raptors to have legs feathered all the way to the toes.

-> The oldest recorded Golden Eagle was at least 31 years, 8 months old, when it was found in 2012 in Utah. It had been banded in the same state in 1980.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Very large with long wings. All dark brown, with slightly paler flight feathers. Golden nape can be seen from some angles.



Immature

Very large with long wings. All dark brown, with white patches at the base of the primaries in the wing, and at the base of the tail. Golden nape can be seen from some angles.



Immature

None



Adult

Very large with strongly hooked bill. All dark brown, with contrasting golden-brown nape.



Immature

Very large with strongly hooked bill. All dark brown, with contrasting golden-brown nape. Immatures have a white base to the tail, visible from some angles.



Immature

None



Immature
None



Immature
None



Immature (with Bald Eagle)

Very large with long wings. All dark brown, with white patches at the base of the primaries in the wing, and at the base of the tail. Golden nape can be seen from some angles. (Golden Eagle at right; Bald Eagle at left.)



Adult
Constructs large stick nests, usually in large trees.



Habitat

Occurs in a wide variety of habitats, usually in fairly open areas and/or near large cliffs.

Turkey Vulture

Bird Characteristics

Scientific Name: *Cathartes aura*

Order: Cathartiformes

Family Name: Cathartidae

Conservation Status: Low Concern

Length: 25.2-31.9 in (64-81 cm)

Weight: 70.5 oz (2000 g)

Wingspan: 66.9-70.1 in (170-178 cm)

Basic Description: If you've gone looking for raptors on a clear day, your heart has probably leaped at the sight of a large, soaring bird in the distance— perhaps an eagle or osprey. But if it's soaring with its wings raised in a V and making wobbly circles, it's likely a Turkey Vulture. These birds ride thermals in the sky and use their keen sense of smell to find fresh carcasses. They are a consummate scavenger, cleaning up the countryside one bite of their sharply hooked bill at a time, and never mussing a feather on their bald heads.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 2.6-3.0 in (6.5-7.5 cm)

Egg Width: 1.7-2.1 in (4.4-5.3 cm)

Incubation Period: 28-40 days

Nestling Period: 60-84 days

Egg Description: Creamy white tinged with gray, blue, or green, and spotted with purple to brown.

Condition at Hatching: Downy, often blind, and defenseless beyond a quiet hiss.

Nest Placement: Turkey Vultures nest in rock crevices, caves, ledges, thickets, mammal

burrows and hollow logs, fallen trees, abandoned hawk or heron nests, and abandoned buildings. These nest sites are typically much cooler (by 13°F or more) than surroundings, and isolated from human traffic or disturbance. While they often feed near humans, Turkey Vultures prefer to nest far away from civilization.

Nest Description: Turkey Vultures don't build full nests. They may scrape out a spot in the soil or leaf litter, pull aside obstacles, or arrange scraps of vegetation or rotting wood. Once found, many of these nest sites may be used repeatedly for a decade or more.

Bird Information

Habitat: Look for Turkey Vultures as they cruise open areas including mixed farmland, forest, and rangeland. They are particularly noticeable along roadsides and at landfills. At night, they roost in trees, on rocks, and other high secluded spots.

Food: Turkey Vultures eat carrion, which they find largely by their excellent sense of smell. Mostly they eat mammals but are not above snacking on reptiles, other birds, amphibians, fish, and even invertebrates. They prefer freshly dead animals, but often have to wait for their meal to soften in order to pierce the skin. They are deft foragers, targeting the softest bits first and are even known to leave aside the scent glands of dead skunks. Thankfully for them, vultures appear to have excellent immune systems, happily feasting on carcasses without contracting botulism, anthrax, cholera, or salmonella. Unlike their Black Vulture relatives, Turkey Vultures almost never attack living prey.

Behavior: The Turkey Vulture's distinctive slow, teetering flight style probably helps the bird soar at low altitudes, where it is best able to use its nose to find carrion. At other times they may soar high on thermals and form mixed flocks or kettles. On the ground they move with ungainly hops and are less agile than Black Vultures. Often, especially in the morning, they can be seen standing erect, wings spread in the sun, presumably to warm up, cool off, or dry off. Outside of the breeding season, Turkey Vultures form roosts of dozens to a hundred individuals. When Turkey Vultures court, pairs perform a "follow flight" display where one bird leads the other through twisting, turning, and flapping flights for a minute or so, repeated over periods as long as 3 hours. Migrating flocks can number in the thousands. At carcasses, several Turkey Vultures may gather but typically only one feeds at a time, chasing the others off and making them wait their turn. Despite their size, Turkey Vultures are often driven off by smaller Black Vultures, Crested Caracaras, Zone-tailed Hawks, and other species.

Conservation: Turkey Vultures increased in number across North America from 1966 to 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 18 million with 28% spending some part of the year in the U.S., 9% in Mexico, and 1% breeding in Canada. The species rates a 5 out of 20 on the Continental Concern Score. Turkey Vulture is not on the

Color Pattern: Turkey Vultures appear black from a distance but up close are dark brown with a featherless red head and pale bill. While most of their body and forewing are dark, the

undersides of the flight feathers (along the trailing edge and wingtips) are paler, giving a two-toned appearance.

Fun Facts

-> The oldest recorded Turkey Vulture was at least 16 years, 10 months old when it was found in Ohio, the same state where it had been banded.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Northern)

Large with long wings. Black body contrasts with gray flight feathers and tail, and naked bright red head.



Adult (Northern)

Large and black with browner back (especially when worn), naked bright red head, and pale bill and legs.



Juvenile (Northern)

Juveniles have an ashy-gray colored naked head.



Immature (Northern)

Immatures have the naked head dusky red in color.



Adult (Northern)

Flies with a distinctive shallow "V" shape, and teeters side-to-side.



Juvenile (Northern)

None



Adult (Tropical) (with Southern Caracara)

Large and black with bright red naked head and contrasting white collar.



Adult (Northern)

Will perch with wings spread to dry off, or on cold days.



Adult (Northern) (with Fish Crow)

Sometimes found with crows at carrion or landfills.



Adult (Northern)

Will flight with other vultures at carrion.



Adult (Northern)

Sometimes roosts communally, sometimes in large groups.

California Condor

Bird Characteristics

Scientific Name: *Gymnogyps californianus*

Order: Cathartiformes

Family Name: Cathartidae

Conservation Status: Red Watch List

Length: 46.1-52.8 in (117-134 cm)

Weight: 246.9-349.2 oz (7000-9900 g)

Wingspan: 109.1 in (277 cm)

Basic Description: The spectacular but endangered California Condor is the largest bird in North America. These superb gliders travel widely to feed on carcasses of deer, pigs, cattle, sea lions, whales, and other animals. Pairs nest in caves high on cliff faces. The population fell to just 22 birds in the 1980s, but there are now some 230 free-flying birds in California, Arizona, and Baja California with another 160 in captivity. Lead poisoning remains a severe threat to their long-term prospects.

Nesting Characteristics

Egg Length: 3.6-4.7 in (9.2-12 cm)

Egg Width: 2.4-2.7 in (6.2-6.8 cm)

Incubation Period: 53-60 days

Nestling Period: 163-180 days

Egg Description: Pale blue-green bleaching to white or creamy.

Condition at Hatching: Helpless, covered in white down with eyes open.

Nest Placement: Condors nest mainly in natural cavities or caves in cliffs, though they sometimes also use trees, such as coast redwood and, historically, the giant sequoia. (As the wild population grows, there is the possibility they may return to the sequoia groves in the Sierra Nevada.) Condors have multiple nesting sites and may switch sites between years. Females make the final decision on which nest location to use.

Nest Description: Condors lay their eggs directly on the dirt floor of a cliff ledge or cave, or they construct loose piles of debris from whatever is available at the nest site, such as gravel, leaves, bark, and bones. Nests have loosely defined boundaries and are usually about 3 feet across and up to 8 inches deep.

Bird Information

Habitat: California Condors have been reintroduced to mountains of southern and central California, Arizona, Utah, and Baja California. Nesting habitats range from scrubby chaparral to forested mountain regions up to about 6,000 feet elevation. Foraging areas are in open grasslands and can be far from primary nesting sites, requiring substantial daily commutes. Condors glide and soar when foraging, so they depend on reliable air movements and terrain that enables extended soaring flight. They are so heavy that they can have trouble taking off, so they often use open, windy areas where they can run downhill or launch themselves from a cliff edge or exposed branch to get airborne. Before captive breeding programs began in the 1980s all remaining condors foraged in an area encompassing about 2,700 square miles; this range is now expanding as the wild population grows. Young condors learn the full extent of their range partly from other more experienced birds.

Food: California Condors eat carrion of land and marine mammals such as deer, cattle, pigs, rabbits, sea lions, and whales. They swallow bone chips and marine shells to meet their calcium needs. They favor small to medium-sized carcasses, probably because smaller bones are easily consumed and digested. Condors locate carcasses with their keen eyesight (not by smell) by observing other scavengers assembled at a carcass. Once they land they take over the carcass from smaller species, but they are tolerant of each other and usually feed in groups. Condors are wary of humans while feeding, which is probably why they do not use roadkill as a food source. In captivity, condors consume 5–7 percent of their body mass per day to maintain their weight, but because their crop (an enlarged part of the esophagus) can hold 3 pounds of food, they may only have to eat every 2–3 days. Young are fed by regurgitation.

Behavior: California Condors can cover hundreds of miles in one flight as they soar for hours at a time, looking for carrion. These long-distance travelers pair off during the breeding season but are highly social at roosting, bathing, and feeding sites; individuals recognize one another. Generally, condors are not aggressive towards each other, though dominant birds will threaten opponents by standing erect, inflating air sacs in the head and neck, opening the bill and eventually lunging toward the opponent. Pairs are monogamous. They share nesting duties nearly equally, stay together throughout the year, and usually endure until one member dies. Courtship involves coordinated pair flights, mutual preening, and displays. Young are dependent on their parents for at least 6 months after fledging; consequently most condors do not nest in successive years. Condors bathe frequently; mates and chicks help groom each other's feathers and skin. They clean up after feeding by rubbing the head and neck on a nearby rock or other surface. Condors sun themselves, which helps dry feathers prior to flight and helps the bird warm up. Condors roost together on horizontal limbs of tall trees, on ledges, or in cliff potholes. Sleeping condors sometimes lie prone on their perch with their heads

tucked behind their shoulder blades. Given their size, condors are not normally hunted by other animals, except humans and occasionally Golden Eagles; however, nestlings and eggs are at risk of predation from Common Ravens, Golden Eagles, and black bears. Young condors play, especially as late-stage nestlings, mock-capturing all sorts of objects and vegetation, and leaping about in seeming exuberance.

Conservation: California Condors are critically endangered; the species is on the

Color Pattern: Adults are black with striking white patches under the wings. The naked head and neck are yellowish orange. Immatures have dark heads, grayer necks, and mottled grayish instead of clear white patches under the wings. Adult coloration is reached at 6-8 years of age.

Fun Facts

-> In the late Pleistocene, about 40,000 years ago, California Condors were found throughout North America. At this time, giant mammals roamed the continent, offering condors a reliable food supply. When Lewis and Clark explored the Pacific Northwest in 1805 they found condors there. Until the 1930s, they occurred in the mountains of Baja California.

-> One reason California Condor recovery has been slow is their extremely slow reproduction rate. Female condors lay only one egg per nesting attempt, and they don't always nest every year. The young depend on their parents for more than 12 months, and take 6-8 years to reach maturity.

-> Condors soar slowly and stably. They average about 30 mph in flight and can get up to over 40 mph. They take about 16 seconds to complete a circle in soaring flight. By comparison, Bald Eagles and Golden Eagles normally circle in 12–14 seconds, and Red-tailed Hawks circle in about 8–10 seconds.

-> At carcasses, California Condors dominate other scavengers. The exception is when a Golden Eagle is present. Although the condor weighs about twice as much as an eagle, the superior talons of the eagle command respect.

-> Condors can survive 1–2 weeks without eating. When they find a carcass they eat their fill, storing up to 3 pounds of meat in their crop (a part of the esophagus) before they leave.

-> California Condors once foraged on offshore islands, visiting mammal and seabird colonies to eat carrion, eggs and possibly live prey such as nestlings.

-> In cold weather, condors raise their neck feathers to keep warm. In hot weather, condors (and other vultures) urinate onto a leg. As the waste evaporates, it cools off blood circulating in the leg, lowering the whole body temperature. Condors bathe frequently and this helps avoid buildup of wastes on the legs.

-> Adult condors sometimes temporarily restrain an overenthusiastic nestling by placing a foot on its neck and clamping it to the floor. This forceful approach is also a common way for an adult to remove a nestling's bill from its throat at the end of a feeding.

-> Young may take months to perfect flight and landings. "Crash" landings have been observed in young four months after their first flight.

-> California Condors can probably live to be 60 or more years old—although none of the condors now alive are older than 40 yet.

-> What's in a name? The name "condor" comes from

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Very large with long, broad wings with long "fingers." Adults are black with striking white patches under the wings.



Immature

None



Adult

None



Immature
None



Immature
None



Adult
The head is naked, yellowish orange or pinkish bordered by what looks like a feather boa.



Immature
None

Clapper Rail

Bird Characteristics

Scientific Name: *Rallus crepitans*

Order: Gruiformes

Family Name: Rallidae

Conservation Status: Low Concern

Length: 12.6-16.1 in (32-41 cm)

Weight: 9.2-14.1 oz (260-400 g)

Basic Description: The large Clapper Rail is abundant in saltwater marshes and mangrove swamps from the U.S. East Coast to Central America and the Caribbean. This secretive bird lives most of its life concealed in dense vegetation. In 2014, the species was split into three: Clapper Rail; Ridgway's Rail of California, Arizona, and Nevada; and Mangrove Rail of South America.

Nesting Characteristics

Clutch Size: 2-16 eggs

Number of Broods: 1-2 broods

Incubation Period: 18-24 days

Egg Description: Creamy white to buff, with irregular brown to lilac blotches.

Condition at Hatching: Covered with black down and a pied bill, leave nest within one day. Fed by parents.

Nest Placement: Nest site selection involves a compromise between sites at higher elevation (to avoid flooding) with less dense cover, and sites at lower elevation with denser cover and tall grasses, to remain hidden from predators. Nests are placed in clumps of vegetation or in shrubs, from just above ground level to about 4 feet off the ground. Sites with diverse vegetation are preferred.

Nest Description: Males do most of the nest building and may continue to add to the nest after the female has started incubating eggs. Nests are bulky platforms of marsh vegetation, and are tall to protect them from tidal flooding and camouflaged to keep them concealed. Nests

may have domes to help keep them hidden, and ramps to enable entry and exit in habitats with high or fluctuating water levels. The outside of the nest is 7–14 inches in diameter, with an inside cup 5–6 inches across and 1.5–3 inches deep. Domes are 6-8.5 inches higher than the rim of the nest. The male may add material during periods of high water. Both sexes incubate the eggs—usually the female during the day and the male at night—and raise the young. Pairs may renest up to 5 times after the failure of previous nests.

Bird Information

Habitat: Clapper Rails live in saltmarshes with extensive vegetation, which they use as refuges, especially at high tide. These birds prefer low portions of coastal wetlands dominated by cordgrass (spartina), pickleweed, mangroves, and other vegetation.

Food: Clapper Rails are opportunistic and omnivorous, eating whatever's available including crabs, crustaceans, fish, eggs, and plant matter. Fiddler crabs are a favorite item if they can be found. They eat vegetation and seeds more often in the winter than in the summer. Clapper Rails forage while hidden in vegetation, or along the edges between marshes and mudflats. They find prey by sight and possibly by smell, usually grabbing food items from the surface or making shallow probes into the ground. Many prey are swallowed whole, and pellets of indigestible material (such as clam shells) are later regurgitated. Clapper Rails sometimes wash debris from clams before eating.

Behavior: Clapper Rails live most of their lives on the ground, concealed amid dense vegetation. They occasionally climb into tall vegetation to investigate a sound or call of another animal. They rarely fly; they instead walk in an often irregular path with neck outstretched, and tail erect, jerking up and down if agitated. Birds may run in response to a threat, holding tail and head straight out and body horizontal. These birds spend much of their time foraging for prey, which they capture by gleaning from the surface or from shallow probes with their bills into the substrate. Clapper Rails are territorial during nesting season, but may form loose colonies, though this is less because they are social, and more because habitat availability and high water levels concentrate individuals onto higher ground. Birds respond to alarm calls and behaviors of other species. They swim well, and will dive if threatened. Clapper Rails are monogamous during the breeding season. Pairs work together to raise young. Adults may use a “broken wing” display to lead predators away from nests. They may compete directly with gulls for nest sites.

Conservation: Clapper Rails are abundant but secretive, so it's hard to estimate their population trends with long-term surveys. The North American Breeding Bird Survey suggests numbers declined between 1966 and 2015 (likely due in part to loss of coastal wetland habitat), but there's not enough data to be certain of the trend. Clapper Rails rate a 13 out of 20 on the Continental Concern Score, and the North American Waterbird Conservation Plan lists it as a Species of Moderate Concern. Clapper Rail is not on the

Color Pattern: None

Fun Facts

- > Clapper Rails have special salt glands that enable them to drink sea water.
- > Eggs submerged in up to 18 inches of water during high tide are still capable of hatching.
- > After leaving the nest, young are continually brooded by parents until they are about a week old. The parents may use the original nest, construct a temporary brood nest, or use floating debris.
- > Chicks less than two weeks old are carried on the adults' backs during periods of high water or when the birds move across open water.
- > When chicks are about a week old, the parents divide the brood and each look after half the offspring.
- > The oldest recorded Clapper Rail was a male, and at least 7 years, 6 months old when he was shot in New Jersey in 1977. He had been banded in the same state in 1971.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large, slender chickenlike rail with a long, slightly curved bill and short tail. Note gray cheek patches. Plumage color varies from cinnamon to grayish depending on location.



Adult

Large, slender chickenlike rail with a long, slightly curved bill. Note gray cheek patches. Plumage color varies from cinnamon to grayish depending on location. Breeds in coastal marshes and wetlands with emergent vegetation.



Immature

Chickenlike rail that often holds its tail up. Cheek patches are gray while the rest of the plumage varies from cinnamon to grayish depending on location.



Adult

Slender, chickenlike rail that often holds its tail up.



Adult

Tall, slender rail with a long, slightly curved bill. Cheeks are gray. Overall color varies from cinnamon to gray depending on location.

Sora

Bird Characteristics

Scientific Name: *Porzana carolina*

Order: Gruiformes

Family Name: Rallidae

Conservation Status: Low Concern

Length: 7.9-9.8 in (20-25 cm)

Weight: 1.7-4.0 oz (49-112 g)

Basic Description: None

Nesting Characteristics

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Soras nest at the edges of shallow wetlands (less than about 8 inches deep) in dense patches of cattails and sedges. They build a nest either on top of mounds of vegetation or attached to plant stems above the surface of the water.

Nest Description: Females loosely weave together a shallow basket with cattails and sedges that is approximately 6 inches wide. Females build the nest, but males often bring them vegetation for the nest. The female starts laying eggs as soon as she completes the foundation and continues to add material to the nest while laying. Females also bend down the vegetation above the nest, tucking the ends into the rim to provide additional cover.

Bird Information

Habitat: Soras spend most of the year in freshwater and brackish wetlands with cattail, sedges, and rushes. During migration and winter, they also use wet pastures, ditches, impoundments, and flooded fields.

Food: Soras primarily eat seeds from wetland plants, but also eat aquatic invertebrates. They rake floating vegetation with their long toes in search of sedge, bulrush, grass, rice, and smartweed seeds. They also peck at the water's surface for seeds and aquatic insects such as

snails, dragonflies, flies, and beetles.

Behavior: Soras flick their tail as they walk slowly along the muddy edges of wetlands pecking at the surface for seeds, but they can also run with lightning speed and disappear from view in a flash. They often stay hidden in dense vegetation, but forage in the open and swim across open water on occasion. Soras tend toward secrecy, but they aggressively defend their territories from other Soras. Their threat display includes neck stretching, bowing, and tail and wing spreading. If displaying fails to warn off an intruder, the territory owner gives chase. Males and females form monogamous bonds during the breeding season. Pairs court each other with a 15–30-minute stare-down followed by preening.

Conservation: Soras are common and the most abundant rail species in North America. Their population was stable between 1966 and 2015, according to the

Color Pattern: None

Fun Facts

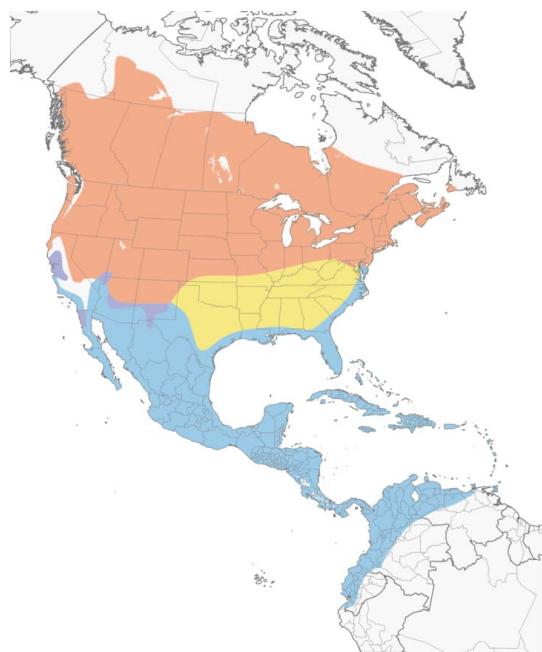
-> It may not seem like it, because seeing a Sora takes some effort, but the Sora is the most abundant and widespread rail in North America.

-> Soras have earned several nicknames including Carolina rail, soree, meadow chicken, and ortolan. The name ortolan was probably given to them by hunters keen on eating the small bird, much like the actual ortolan, which is a bunting from Europe that is a delicacy in France, although an illegal one.

-> Soras might not look like they can fly long distances with their stubby wings and chubby bodies, but they fly hundreds of miles each spring and fall to wetlands in Central and South America.

-> Loud noises sometimes give Soras a start, but instead of jumping like we might do they give a whinny call. Even the slamming of a car door may startle a Sora into calling.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Small secretive bird of freshwater marshes. The short tail is often held up showing white underneath. The face is gray with a black mask and a thick and stubby yellow bill, reminiscent of candy corn.



Adult

Small rail of shallow freshwater wetlands with dense emergent vegetation. Uses brackish marshes during migration. Note stubby yellow, bill, black mask, and gray cheek.



Juvenile

Juveniles are pale below and brown above with a buffy face. Found in shallow wetlands with a lot of emergent vegetation.



Adult
None



Adult
In flight, note relatively long wings with a pale trailing edge.

Purple Gallinule

Bird Characteristics

Scientific Name: *Porphyrio martinica*

Order: Gruiformes

Family Name: Rallidae

Conservation Status: Low Concern

Length: 13.0-14.6 in (33-37 cm)

Weight: 7.2-10.3 oz (203-291 g)

Wingspan: 21.6-22.1 in (55-56 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 6-8 eggs

Number of Broods: 1 brood

Egg Length: 1.3-1.7 in (3.3-4.4 cm)

Egg Width: 0.9-1.3 in (2.2-3.3 cm)

Incubation Period: 20-23 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Nests and their placement vary tremendously: some are loose collections of vegetation made of, and on, floating vegetation, and these move around during windy periods. Others are anchored in reeds or other emergent vegetation, placed near water level or in vegetation as high as 2.6 feet above the water. Purple Gallinules build up to 4 different nests, though only one is used for egg-laying and incubation. Because the sexes are similar, it is not known which sex selects the nest, but both male and female apparently participate in construction.

Nest Description: The nest is a roughly cup-shaped platform of rushes, sedges, and grasses,

normally fixed into a crotch of standing marsh vegetation or onto floating vegetation. Nests are roughly 11 inches across and 3.5 inches deep. Some nests have a half-roof, to conceal the incubating parent and provide some protection from the elements. Others have a small ramp of vegetation leading to the nest. When young hatch, a parent sometimes moves them to one of the additional nests.

Bird Information

Habitat: Purple Gallinules inhabit freshwater marshes, mostly places that hold water year-round and that have sedges, grasses, and rushes and especially also dense stands of emergent floating vegetation such as American lotus, water shield, spatterdock, pickerel weed, arrowhead, water pennywort, and various water lilies. These floating plants provide habitat both for foraging and nesting. Nonbreeding birds are often seen in more open environments than breeding birds, which require more extensive aquatic vegetation for suitable nest sites. Purple Gallinules use lakes, ponds, impoundments, reservoirs, and wet rice fields to varying extents, so long as there is food and adequate vegetation for cover and foraging. In South America, migrants have been found in Andean wetlands at elevations as high as 13,385 feet. Migrating individuals crossing the Gulf of Mexico often appear on oil drilling platforms, on barrier island beaches, and in gardens.

Food: Like most rails, Purple Gallinules eat a great variety of foods; typically more plants than animals. The water-lily family, including American lotus, produces flowers and fruits that gallinules consume readily, and they also eat flowers, leaves, and tubers of invasive exotic plants such as water hyacinth and hydrilla, as well as rice. Seeds of many different sedges and other aquatic plants such as buttonbush, water willow, sawgrass, smartweed, and pickerel weed are also important food items. Purple Gallinules also prey on spiders, mollusks, beetles, bees, worms, snails, dragonflies, leeches, ants, grasshoppers, and moth larvae, as well as frogs, small fish, and eggs and nestlings of other birds.

Behavior: Foraging Purple Gallinules recall a chicken, albeit one with very long legs; they usually walk slowly and carefully, placing the feet gingerly as they survey marsh vegetation for edible plants and animals. As they walk, they often flick the tail up and down like a chicken does. When disturbed they run, swim, or fly away, legs dangling, sometimes landing in trees or shrubs, where they readily climb, balancing with their wings as they move about. Swimming birds jerk the head forward rhythmically as they proceed. They can also dive underwater, remaining hidden except for the bill for long periods. Young birds learning to walk on floating vegetation often appear comical, holding their wings high in the air and racing across the pads quickly when called by a parent. Adults sometimes clash over territories, first posing in erect posture, then chasing and, rarely, striking each other with feet and bills unless one bird assumes a submissive posture. During such fights, birds call loudly. Rival males also sometimes strike a bowing pose during or after conflict, with lowered neck and head, raised body and tail, with wingtips touching over the back. Nesting pairs appear to be seasonally monogamous in the United States and defend territories of about 2.5 acres. Nonbreeding birds are usually found in areas less suitable for nesting, and they are not territorial. Purple Gallinules often nest in the same areas as Common Gallinules, which appear to be dominant

over them.

Conservation: Purple Gallinule populations in the U.S. declined by about 2.8% per year from 1966–2015, indicating a cumulative decline of 76% over that period, according to the

Color Pattern: None

Fun Facts

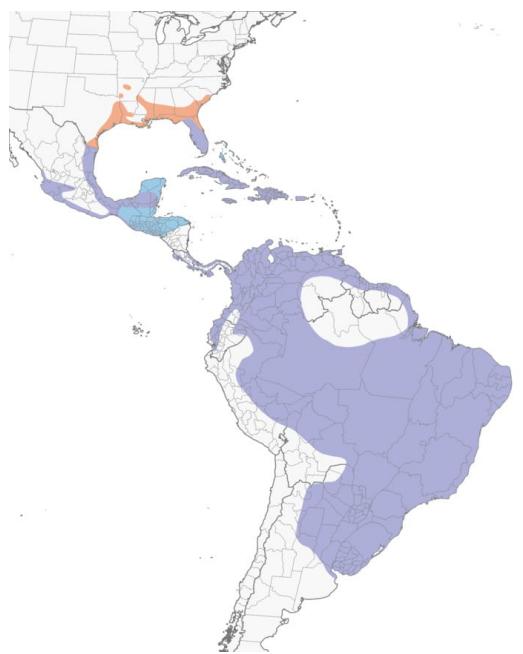
-> Purple Gallinules are remarkable fliers and turn up far out of their normal range surprisingly often. They've even shown up in Iceland, Switzerland, South Georgia island, the Galápagos, and South Africa. A recent study noted that these may not be mere accidents: years with severe drought in the gallinule's core range tended to produce more so-called vagrants in autumn and winter. In other words, these wanderers may not be lost but perhaps seeking places to feed because their usual haunts do not have adequate food.

-> In the tropics, such as Panama and Costa Rica, Purple Gallinules often have multiple broods per year. In an unusual behavior for rails, the juvenile and immature birds from earlier nestings often assist parents with feeding and defending the new chicks and defending the family's territory as well.

-> Purple Gallinule chicks are "subprecocial," meaning they can walk around soon after hatching but cannot feed themselves for the first few weeks of life. The chicks are equipped with a tiny claw at the end of their pollex (innermost digit, corresponding to a human thumb), which helps them grip vegetation as they move around their environment.

-> The oldest recorded Purple Gallinule was at least 7 years, 4 months old when it was found in Florida in 1956. It had been banded there in 1950.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Medium-sized marsh bird with long yellow legs. Adults are an brilliant purple with a bright red-and-yellow bill.



Juvenile

Juveniles are pale brown with tints of bronze-green on the wings and back. Note white undertail coverts and long toes.



Immature

Immature birds are bronze above with purple feathers coming in on the chest. The bill and forehead shield are pale.



Adult

Flies with legs hanging down when going short distances. Note iridescent bronze, green, and blue back and red-and-yellow bill.



Adult

Adults have a blue shield on the forehead and a bright red-and-yellow bill. In good light their backs shine with green and turquoise colors. Can swim like a duck and walk on vegetation.



Adult

Their long toes help them grab onto stems of marsh plants and walk on top of floating vegetation.



Adult

Brilliant purple marsh bird with a red-and-yellow bill and long yellow legs. Walks on top of floating marsh vegetation, often pushing its head forward with each step.



Habitat

Found in freshwater marshes with dense stands of floating vegetation.

American Coot

Bird Characteristics

Scientific Name: *Fulica americana*

Order: Gruiformes

Family Name: Rallidae

Conservation Status: Low Concern

Length: 15.5-16.9 in (39.4-42.9 cm)

Weight: 21.2-24.7 oz (600-700 g)

Wingspan: 23.0-25.0 in (58.4-63.5 cm)

Basic Description: The waterborne American Coot is one good reminder that not everything that floats is a duck. A close look at a coot—that small head, those scrawny legs—reveals a different kind of bird entirely. Their dark bodies and white faces are common sights in nearly any open water across the continent, and they often mix with ducks. But they're closer relatives of the gangly Sandhill Crane and the nearly invisible rails than of Mallards or teal.

Nesting Characteristics

Clutch Size: 8-12 eggs

Number of Broods: 1-2 broods

Egg Length: 1.7-2.2 in (4.3-5.5 cm)

Egg Width: 0.8-1.5 in (2-3.7 cm)

Incubation Period: 23-25 days

Egg Description: Buff, pinkish buff or buff-gray speckled with dark brown, purplish brown, or black.

Condition at Hatching: Covered in down, alert, ready to leave the nest within 6 hours of hatching.

Nest Placement: Nests are almost always built over water on floating platforms and almost always associated with dense stands of living or dead vegetation such as reeds, cattails, bulrushes, sedges, and grasses. Occasionally, the nest may be built on the edge of a stand of

vegetation, where it is clearly visible.

Nest Description: The nest material is woven into a shallow basket with a hollowed interior lined with finer smooth material to hold the eggs. The entire nest is generally a floating structure anchored to upright stalks. Average diameter is 12 inches, with a 12 to 15-inch ramp and an egg cup of about 1 inch in depth and 6 inches in diameter.

Bird Information

Habitat: The American Coot inhabits a wide variety of freshwater wetlands from prairie potholes to swamps and marshes to suburban park and sewage ponds to the edges of large lakes. Two features generally characterize all bodies of water where coots breed: (1) heavy stands of emergent aquatic vegetation along at least some portion of the shoreline and (2) at least some depth of standing water within those stands of vegetation. Seasonal wetlands used during years of high water, while drought years cause breeding to be limited to permanent wetlands.

Food: Eats mainly aquatic plants including algae, duckweed, eelgrass, wild rice, sedges, hydrilla, wild celery, waterlilies, cattails, water milfoil; when on land they also pick at terrestrial plants and sometimes eat grains or leaves of oak, elm, and cypress trees. They're not exclusively vegetarian. You may also see them eating insects (beetles, dragonflies, and others), crustaceans, snails, and small vertebrates such as tadpoles and salamanders.

Behavior: A slow and meticulous forager, the American Coot plucks at plants while walking, swimming, dabbling with its head just underwater, or in full dives. In flight coots are clumsy and labored (though less so than Common Moorhens). To get airborne, coots typically have to beat their wings while running across the water for many yards. Coots sometimes gather in winter flocks of several thousand, sometimes mixing with other waterfowl. They sometimes steal food from others including ducks. Coots sometimes lay their eggs in the nests of other coots as well as Franklin's Gulls, Cinnamon Teal, and Redheads.

Conservation: American Coot are common and widespread, and populations appear to be stable, according to the North American Breeding Bird Survey. They are not on the

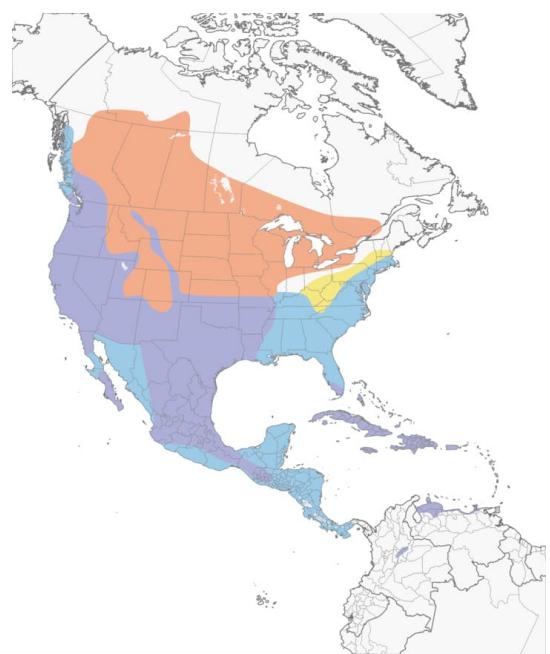
Color Pattern: Coots are dark-gray to black birds with a bright-white bill and forehead. The legs are yellow-green. At close range you may see a small patch of red on the forehead.

Fun Facts

-> Although it swims like a duck, the American Coot does not have webbed feet like a duck. Instead, each one of the coot's long toes has broad lobes of skin that help it kick through the water. The broad lobes fold back each time the bird lifts its foot, so it doesn't impede walking on dry land, though it supports the bird's weight on mucky ground.

- > American Coots in the winter can be found in rafts of mixed waterfowl and in groups numbering up to several thousand individuals.
- > The ecological impact of common animals, like this ubiquitous waterbird, can be impressive when you add it all up. One estimate from Back Bay, Virginia, suggested that the local coot population ate 216 tons (in dry weight) of vegetation per winter.
- > The oldest known American Coot lived to be at least 22 years 4 months old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Plump waterbird with a rounded head and a sloping bill. Adults are dark gray overall with a white bill tipped in a ring of black.



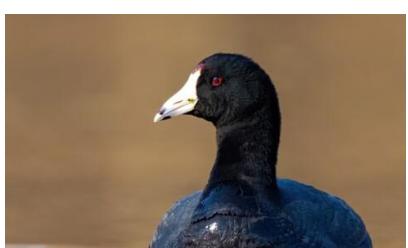
Adult

On land appears rather chickenlike. Note the long lobed toes that help propel it in the water.



Juvenile

Juveniles are pale grayish below with a pale bill.



Adult

With good views note the red eye and the white shield that is topped with red.



Adult and chick

Right after hatching chicks have bare red spots on their heads, rusty-colored down around their head, and a red bill.



Adult

To get airborne, coots typically need to beat their wings while running across the water for many yards.



Adult

None



Habitat

Found in ponds, marshes, reservoirs, lake edges, roadside ditches, sewage treatment ponds, and saltwater inlets or salt marshes.

Whooping Crane

Bird Characteristics

Scientific Name: *Grus americana*

Order: Gruiformes

Family Name: Gruidae

Conservation Status: Restricted Range

Length: 59.1 in (150 cm)

Weight: 211.6-275.1 oz (6000-7800 g)

Wingspan: 90.2 in (229 cm)

Basic Description: The Whooping Crane is the tallest bird in North America and one of the most awe-inspiring, with its snowy white plumage, crimson cap, bugling call, and graceful courtship dance. It's also among our rarest birds and a testament to the tenacity and creativity of conservation biologists. The species declined to around 20 birds in the 1940s but, through captive breeding, wetland management, and an innovative program that teaches young cranes how to migrate, numbers have risen to about 600 today.

Nesting Characteristics

Clutch Size: 1-3 eggs

Incubation Period: 29-31 days

Egg Description: Light brown or olive with brown splotches.

Condition at Hatching: Covered with down and able to walk and swim within a few hours of hatching.

Nest Placement: Pairs choose nest sites in shallow water of marshes, sloughs, or lake margins, frequently on small islands. They often take advantage of vegetation that hides the nest and incubating parent from predators. Each year the pair chooses a new nest site, sometimes in the same vicinity.

Nest Description: The male and female build the nest together by piling up and trampling vegetation such as bulrushes, sedges, and cattails. The nest measures 2–5 feet across and has a flat surface or a shallow depression for the eggs.

Bird Information

Habitat: The only remaining naturally occurring Whooping Crane population spends the winter on the Gulf Coast, primarily in Texas's Aransas National Wildlife Refuge, and breeds in Canada's Northwest Territories and Alberta, mainly in Wood Buffalo National Park.

Surrounded by the headwaters of four rivers, the Canadian breeding grounds lie on poorly drained soil interspersed with shallow wetlands. The Whooping Cranes nest in potholes dominated by bulrushes and containing other aquatic plants such as cattails, sedge, and muskgrass. These wetlands are divided by narrow ridges that support white and black spruce, tamarack, willows, dwarf birch, Labrador tea, and bearberry. On their Texas wintering grounds, Whooping Cranes spend their time on estuarine marshes, shallow bays, and tidal flats, sometimes venturing to nearby farmland. Salt grass, saltwort, smooth cordgrass, glasswort, and sea oxeye dominate the marshes, with Gulf cordgrass on the margins. Farther inland in their range are sandy, gently rolling grasslands with live oak, red bay, and bluestem plants. Migrating birds feed in croplands and roost in shallow, freshwater wetlands.

Food: Whooping Cranes eat invertebrates, small vertebrates, and plant material, which they find on the ground and in shallow water. They peck and probe sandy or flooded soils to find prey underground. They also glean insects, berries, and seeds from low vegetation and take prey from the soil surface, using their bills to stab larger animals. The Canada breeding population eats mollusks, crustaceans, aquatic insects, minnows, frogs, snakes, mice, voles, aquatic tubers, and berries, while the Wisconsin breeding population eats mostly aquatic animals. Whooping Cranes also eat waste grains including barley, wheat, and corn from harvested fields, particularly during migration. On the Gulf Coast they feed in brackish bays, marshes, salt flats, and flooded or burned uplands away from human disturbance, eating mostly blue crabs, clams, and other animal foods, along with some plant material such as wolfberry, cranberry, acorns, cordgrass, marsh onions, and prairie lily.

Behavior: Whooping Cranes are monogamous, forming pairs at the age of 2 or 3 years and mating for life. Courting pairs perform an elaborate, energetic dance display in which they leap, flap their wings, toss their heads, and even fling feathers and grass. Each breeding pair has a territory defended primarily by the male, who may attack intruding Whooping Cranes by running, flapping, hissing, stabbing, or jumping and slashing with his feet. New pairs often establish a territory near their parents. Whooping Cranes live and travel alone, in pairs, as families, or in small flocks of up to 7 birds, and sometimes flock with Sandhill Cranes. They may ignore or pursue other nearby birds, cattle, and deer. They spend their time on the ground and in shallow water, never perching in trees. They learn migration routes and nesting locations from other cranes (or from researchers in ultralight aircraft, as part of reintroduction efforts). Their strong homing instinct limits their dispersal to new habitat.

Conservation: The Whooping Crane is listed as federally endangered and is on the

Color Pattern: Adults are bright white birds with accents of red on the head. The legs, bill, and wingtips are black. Immatures are whitish below but mottled brownish-rusty above.

Fun Facts

-> Weighing 15 pounds, the Whooping Crane has a wingspan of more than 7 feet and is as tall as many humans, reaching a height of around 5 feet. Also measuring 5 feet in length is its trachea, which coils into its sternum and allows the bird to give a loud call that carries long distances over the marsh. The Whooping Crane probably gets its name from either its single-note guard call or its courtship duet.

-> The Whooping Crane walks with a smooth and stately gait. Its courtship dance is a spectacle of leaping, kicking, head-pumping, and wing-sweeping.

-> In 1941 there were only 21 Whooping Cranes left: 15 were migrants between Canada and Texas while the rest lived year-round in Louisiana. The Louisiana population went extinct, and all 600 of today's Whooping Cranes (about 440 in the wild and 160 in captivity) are descended from the small flock that breeds in Texas.

-> The only self-sustaining population of Whooping Cranes is the naturally occurring flock that breeds in Canada and winters in Texas. Three reintroduced populations exist with the help of captive breeding programs. One of these is migratory: researchers use ultralight aircraft to teach young cranes to migrate between Wisconsin breeding grounds and Florida wintering grounds.

-> The oldest Whooping Crane on record - banded in the Northwest Territories in 1977 - was at least 28 years, 4 months old when it was found in Saskatchewan in 2005.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Very tall with long legs and neck. Entirely white body with a red crown and mustache stripe.



Adult

Large with long wings. Flies with neck and legs outstretched. Black wingtips only visible in flight.



Juvenile

None



Adult
None



Adult and juvenile
Large, long-legged, white crane. Feeds in shallow wetlands and pastures.
Juveniles have a rusty brown head and mottled back.



Adult (with Sandhill Crane)
Larger than Sandhill Cranes with a white body and black wingtips.



Habitat
None

American Golden-Plover

Bird Characteristics

Scientific Name: *Pluvialis dominica*

Order: Charadriiformes

Family Name: Charadriidae

Conservation Status: Declining

Length: 9.4-11.0 in (24-28 cm)

Weight: 4.3-6.8 oz (122-194 g)

Wingspan: 25.6-26.4 in (65-67 cm)

Basic Description: None

Nesting Characteristics

Bird Information

Habitat: During migration, American Golden-Plovers feed in lagoons and estuaries. For breeding they use arctic and subarctic tundra, both in lowlands and mountains. Tundra vegetation is seldom more than a few inches tall, which allows the birds to feed and nest where they can see predators at distance. The closely related Pacific Golden-Plover often nests in similar habitat, but typically selects wetter areas with fewer rocks, while the American Golden-Plover nests on higher, stonier slopes. During migration, flocks gather in native prairie, pastures, sod farms, farmland, mudflats, and shorelines, both on major coastlines and in the interior. On wintering grounds in eastern Brazil to Argentina, they use agricultural fields, pastures, and grasslands.

Food: American Golden-Plovers eat mostly insects and invertebrates along with some berries and seeds. They hunt much like an American Robin; running along, stopping to scan for prey, then quickly picking it up from the ground. The plovers usually seize prey quickly, then repeat their “run-stop-peck” method. For most of the year, golden-plovers eat larval and adult insects, including beetles, grasshoppers, wasps, ants, flies, and mosquitoes. They also eat spiders, snails, worms, mollusks, and small crustaceans such as fiddler crabs. In late summer, they readily eat berries, mostly crowberries and blueberries, which help them put on fat for their long migration.

Behavior: undefined

Conservation:

Color Pattern: Breeding birds are gold-spangled above, blackish below, with a white “scarf” extending from brow to breast sides. Juveniles and nonbreeding birds still show some gold tones above but are dingy grayish below.

Fun Facts

-> The American Golden-Plover has a long migration route. In the fall, many fly offshore from the East Coast and don't land until they reach South America. In spring, most pass through the middle of North America to reach the Arctic.

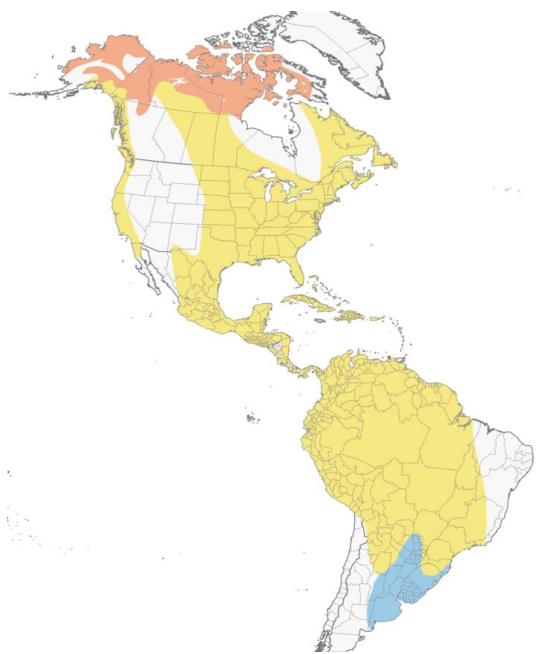
-> With so much distance to cover, golden-plovers fly fast—studies using geolocators found the birds averaged 30+ mph and sometimes achieved ground speeds of over 80 mph during their long over-ocean flights.

-> Like many shorebirds, adult American Golden-Plovers leave the Arctic in early summer, leaving their young behind. The juveniles (only a few months old) set off on migration in late summer or fall—finding their way to South America on their own.

-> In the 19th and 20th centuries, colloquial names for the American Golden-Plover included bullhead, field plover, greenback, muddy-belly, and prairie pigeon.

-> The oldest American Golden-Plover was at least 13 years old when it was recaptured and released during a banding operation in Alaska.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

The very long primaries, gold-spangled upperparts, black underparts, and broad white stripe on the head and neck help to identify this shorebird in breeding plumage. The white patch does not extend below the chest, and the flanks and undertail are black, which helps to rule out other species of golden-plovers. In breeding plumage, adult males like this are crisply marked with even black on the face.



Breeding female

A teardrop-shaped shorebird with a large head, slim, short bill, and long legs. In breeding plumage, adult females have pale-mottled faces, giving them a slightly messy look compared to the crisp males.



Juvenile

The large eye and bulky head combine to create a gentle expression. Fall juveniles appear scaly because of their complete set of even-aged, fresh feathers. Four primaries extend beyond the gold-spangled tertials at rest, imparting a longer primary projection to the folded wing than is found on Pacific Golden-Plover or Black-bellied Plover.



Juvenile

When viewed head-on, these slim plovers can appear quite plump, but note the long legs and slim bill. Juveniles show a dark cap that contrasts strongly with a pale eyebrow.



Juvenile

The underside of the wing is plain gray, lacking the black "wingpits" shown by Black-bellied Plover.



Juvenile

Golden-plovers have long, pointed wings and blunt tails. The rump and tail blend in with the back, distinguishing this from the pale-tailed Black-bellied Plover. Also, note the extended legs and feet that fall short of the tip of the tail.



Nonbreeding adult

Nonbreeding birds are similar to juveniles but show drabber upperparts with less crisp feather edging. The long-winged look created by four primaries extending beyond the tertials on the folded wing helps to rule out Black-bellied Plover and other golden-plover species.



Flock

Golden-plovers fly quickly in wheeling, well-coordinated flocks. Note the slim, pointed wings and pale gray underwings.



Habitat

The erect posture, teardrop-shaped body, blocky head, and slim bill and long legs combine to create the golden-plover “look.” Adults molt into breeding plumage during their marathon spring migration. The black-and-white underparts will become primarily black by the time these birds arrive on their subarctic and arctic breeding grounds.

Killdeer

Bird Characteristics

Scientific Name: *Charadrius vociferus*

Order: Charadriiformes

Family Name: Charadriidae

Conservation Status: Low Concern

Length: 7.9-11.0 in (20-28 cm)

Weight: 2.6-4.5 oz (75-128 g)

Wingspan: 18.1-18.9 in (46-48 cm)

Basic Description: A shorebird you can see without going to the beach, Killdeer are graceful plovers common to lawns, golf courses, athletic fields, and parking lots. These tawny birds run across the ground in spurts, stopping with a jolt every so often to check their progress, or to see if they've startled up any insect prey. Their voice, a far-carrying, excited

Nesting Characteristics

Clutch Size: 4-6 eggs

Number of Broods: 1-3 broods

Egg Length: 1.5 in (3.8 cm)

Egg Width: 1.1 in (2.7 cm)

Incubation Period: 22-28 days

Egg Description: Buff-colored, heavily marked with blackish-brown.

Condition at Hatching: Killdeer chicks hatch with a full coat of buffy down feathers and a single black breast band. They can walk out of the nest as soon as their feathers dry.

Nest Placement: Killdeer nests are simple scrapes often placed on slight rises in their open habitats. Killdeer may make several scrapes not far away from each other before choosing one to lay in. The duplication may help to confuse predators.

Nest Description: Nest is a shallow depression scratched into the bare ground, typically 3-3.5

inches across. After egg-laying begins, Killdeer often add rocks, bits of shell, sticks, and trash to the nest. Curiously, these items tend to be light colored, and this tendency was confirmed in one experiment that gave Killdeer the choice between light and dark sticks.

Bird Information

Habitat: Killdeer inhabit open areas such as sandbars, mudflats, and grazed fields. They are probably most familiar around towns, where they live on lawns, driveways, athletic fields, parking lots, airports, and golf courses. Generally the vegetation in fields inhabited by Killdeer is no taller than one inch. You can find Killdeer near water, but unlike many other shorebirds, they are also common in dry areas.

Food: Feeds primarily on invertebrates, such as earthworms, snails, crayfish, grasshoppers, beetles, and aquatic insect larvae. Follows farmers' plows in hopes of retrieving any unearthed worms or insect larvae. Will also eat seeds left in agricultural lands. An opportunistic forager, Killdeer have been observed hunting frogs and eating dead minnows.

Behavior: Often seen in dry, flat landscapes, running and halting on the ground in search of insects and earthworms. Although the Killdeer is common around human habitation it is often shy, at first running away rather than flying. When a Killdeer stops to look at an intruder, it has a habit of bobbing up and down almost as if it had hiccupped. Near the nest, Killdeer distract predators by calling loudly, bobbing, and running away. Killdeer are some of the best-known practitioners of the broken-wing display, an attempt to lure predators away from a nest by feigning injury. Pairs of Killdeer tend to stay together for one to a few years.

Conservation: Killdeer populations declined overall by about 47% between 1966 and 2014, with steeper declines in Canada and the West, according to the North American Breeding Bird Survey. A 2012 study estimates about 2 million breeding birds in North America, an increase over numbers reported in a 2006 study. Killdeer is not on the

Color Pattern: Brownish-tan on top and white below. The white chest is barred with two black bands, and the brown face is marked with black and white patches. The bright orange-buff rump is conspicuous in flight.

Fun Facts

-> Killdeer get their name from the shrill, wailing

-> Gravel rooftops attract Killdeer for nesting, but can be dangerous places to raise a brood. Chicks may be unable to leave a roof because of high parapets and screened drain openings. Adults eventually lure chicks off the roof, which can be dangerous – although one set of chicks survived a leap from a seven-story building.

-> The Killdeer's broken-wing act leads predators away from a nest, but doesn't keep cows or horses from stepping on eggs. To guard against large hooved animals, the Killdeer uses a quite

different display, fluffing itself up, displaying its tail over its head, and running at the beast to attempt to make it change its path.

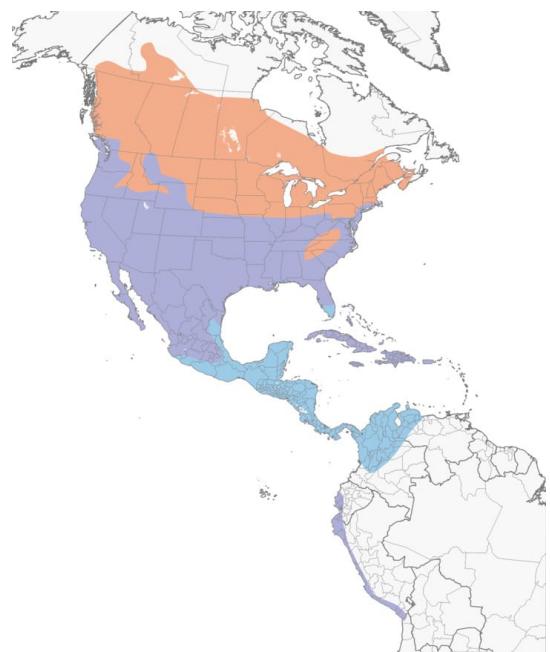
-> A well-known denizen of dry habitats, the Killdeer is actually a proficient swimmer. Adults swim well in swift-flowing water, and chicks can swim across small streams.

-> The male and female of a mated pair pick out a nesting site through a ritual known as a scrape ceremony. The male lowers his breast to the ground and scrapes a shallow depression with his feet. The female then approaches, head lowered, and takes his place. The male then stands with body tilted slightly forward, tail raised and spread, calling rapidly. Mating often follows.

-> Killdeer lay their eggs into an empty nest but add other materials later on. Some of these items they pick up as they are leaving and toss over their shoulder into the nest. In one nest in Oklahoma, people found more than 1,500 pebbles had accumulated this way.

-> The oldest recorded Killdeer was at least 10 years, 11 months old when it was recaptured and rereleased during banding operations in Kansas.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Slender shorebird with long wings and tail. Adults have 2 black breast bands.



Adult

Adults perform broken-wing displays to distract predators from their nests and young. Note rusty tail in flight.



Chick

Chicks can leave the nest as soon as their downy feathers dry out. Downy juveniles have a single breast band.



Adult

Nests on the ground in open areas.



Adult

Slender shorebird with long wings and tail. Brownish above and white below with 2 black breast bands.



Adult

Found in open areas such as sandbars, mudflats, grazed fields, lawns, driveways, athletic fields, parking lots, airports, and golf courses.



Adult

Found in dry, flat landscapes, running and halting on the ground in search of insects and earthworms.

American Oystercatcher

Bird Characteristics

Scientific Name: *Haematopus palliatus*

Order: Charadriiformes

Family Name: Haematopodidae

Conservation Status: Restricted Range

Length: 15.8-17.3 in (40-44 cm)

Weight: 14.1-24.7 oz (400-700 g)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-4 eggs

Number of Broods: 1 brood

Egg Length: 2.2-2.3 in (5.6-5.8 cm)

Egg Width: 1.5-1.6 in (3.9-4 cm)

Incubation Period: 24-28 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: The female selects the nest site in vegetation on barrier beaches (usually within or behind dunes), shelly islands, dredge-spoil islands, or high marsh. The nest site usually features dune vegetation such as sea oats or beach grass and is less often among short bushes. Some pairs have been found nesting on gravel rooftops or rocky artificial islands.

Nest Description: The nest is simply a scrape in the sand, without lining.

Bird Information

Habitat: American Oystercatchers are found only in intertidal areas and adjacent beaches, especially barrier islands with few or no predators. Within this environment, they prefer sandy, shelly beaches for nesting but also nest on sandy spots in saltmarshes and even on mats of dead vegetation (wrack) in the upper part of saltmarshes. Artificial beaches, such as dredge-spoil islands, also attract oystercatchers for nesting and roosting. Migrating and wintering birds use the same habitats. During foul weather, such as tropical storms and nor'easters that prevent them from foraging, oystercatchers take shelter in other open habitats in the vicinity such as agricultural fields.

Food: American Oystercatchers dine almost solely on saltwater bivalve mollusks, including many species of clams and several oysters and mussels, and to a lesser degree limpets, jellyfish, starfish, sea urchins, marine worms, and crustaceans such as lady crabs and speckled crabs. Oystercatchers walk slowly through oyster reefs until they see one that is slightly open; they quickly jab the bill inside the shell to snip the strong adductor muscle that closes the two halves of the shell. Some oystercatchers smash open shells with the tip of the bill before snipping the muscle, especially when hunting softer-shelled species. Adult oystercatchers tend to teach their young one technique, either to snip or to smash, during their first year. For bivalves such as razor clams that burrow into sand, oystercatchers probe into the substrate and capture the prey by touch; they also capture mole crabs and polychaete worms in this manner. Tidal conditions influence when oystercatchers forage, and generally, they forage most heavily on falling tides, when prey is still partly submerged and actively feeding, shells open.

Behavior: American Oystercatchers are monogamous and sometimes maintain a pair bond for many consecutive years. Their courtship in early spring is boisterous, with courting birds pacing quickly over the sand in unison, giving a piping call that increases in tempo, and pivoting in arcing patterns around the beach, sometimes taking to flight in pairs. A courting pair often attracts neighboring pairs to begin this display, and sometimes as many as three pairs come together in what scientists call the Piping Ceremony. Copulation often follows this display. The size of a pair's territory probably depends on local conditions and ranges in size from about 1.7 to 5.3 acres. They sometimes establish territories within a colony of terns, Black Skimmers, or Brown Pelicans. Pairs stay very near one another for the breeding season. Male and female take turns incubating the eggs, and both defend eggs and young, driving away intruders (including other oystercatchers) with calls, chases, and aggressive flight. Young birds can dive and swim underwater to escape predators. After the nesting season the adults and young disperse, often to different locations, for the winter, and younger birds often spend one or more years away from their natal area before returning.

Conservation: American Oystercatcher populations can be highly variable from year to year in response to food supplies, and their highly restricted habitat means the birds are never particularly numerous.

Color Pattern: None

Fun Facts

-> Recent tracking studies have revealed that oystercatchers make tremendously variable movements after the breeding season. Young birds do not follow their parents to wintering locations; in fact, young from the same nest may even migrate in completely different directions in autumn. Adults are also idiosyncratic in their movements, with some staying on the breeding territory year-round, others moving hundreds of miles away.

-> American Oystercatchers are the only birds in their environment with the ability to open large molluscs such as clams and oysters (except for large gulls that drop clams onto pavement). Foraging oystercatchers often attract other birds eager to share (or steal from) the oystercatcher's "raw bar," including Willets, large gulls, and Ruddy Turnstones.

-> American Oystercatchers don't always win out in their battles against oysters and clams. Occasionally, a shellfish gets its revenge by clamping down on an oystercatcher's bill and holding the bird tight. When the tide comes back in, it can spell bad news for the would-be predator.

-> The closely related Black Oystercatcher of the Pacific Coast often hybridizes with American Oystercatchers in Southern California, where the two species' ranges meet. Most oystercatchers that resemble American Oystercatcher observed in California turn out to have some Black Oystercatcher ancestry.

-> The oldest American Oystercatcher was at least 23 years, 10 months old. It had been banded as an adult in Virginia in 1989 and was found in Florida in 2012.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large and chunky shorebird with a bright red bill and yellow eye.



Juvenile

Chunky shorebird. Juveniles are duller than adults with a dark-tipped bill.



Adult

In flight, note white wing and tail stripe. Flying birds often give piercing calls.



Adult

Conspicuous shorebird with a bright red bill and yellow eye.



Adult

Courting birds walk side by side giving single piping notes with their outstretched necks bobbing up and down.



Adult

Nests on the ground on sand dunes, marsh islands, or oyster shell mounds.



Habitat

Found in coastal habitats including sand or shell beaches, dunes, saltmarsh, marsh islands, mudflats, and dredge spoil islands made of sand

or gravel.

Black-necked Stilt

Bird Characteristics

Scientific Name: *Himantopus mexicanus*

Order: Charadriiformes

Family Name: Recurvirostridae

Conservation Status: Low Concern

Length: 13.8-15.3 in (35-39 cm)

Weight: 5.3-6.2 oz (150-176 g)

Wingspan: 28.1-29.7 in (71.5-75.5 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 1.5-2.0 in (3.7-5.1 cm)

Egg Width: 1.1-1.3 in (2.9-3.2 cm)

Incubation Period: 24-29 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Black-necked Stilts nest on the ground. They tend to build on surfaces above water, such as small islands, clumps of vegetation, or even, occasionally, floating mats of algae. Both female and male choose the site; they look for places with soft sand or other substrate that can be scraped away to form the nesting depression. The nests are often set among vegetation stubble adjacent to water or on dikes, islands, or high spots with sparse vegetation such as glasswort and saltgrass.

Nest Description: Males and females share the work of nest construction. While one observes, the other scrapes into the dirt with breast and feet to form a depression about 2 inches deep.

As they dig, they add small bits of lining back into the nest. Most lining is added to the nest during incubation and consists of whatever material is closest to the nest, including grasses, shells, mud chips, pebbles, and bones. Some nests are left unlined.

Bird Information

Habitat: Black-necked Stilts inhabit shallow wetlands with limited vegetation, including salt ponds and pans, flooded areas along rivers, shallow lagoons, saltmarshes, mangrove swamps, and mudflats. Sewage ponds, evaporation ponds, rice fields and other flooded agricultural fields, and other human-created wetlands also attract stilts—and in some areas stilts actually favor these habitats over available natural habitats. Although stilts tolerate more vegetation in their nesting areas than avocets do, they nest and forage in areas with large openings of shallow water, such as in saltmarshes. Migrating and wintering stilts select habitats similar to those used in the breeding season. In Hawaii, the endemic subspecies of Black-necked Stilt regularly forages in the freshwater fish impoundments created by ancient inhabitants of the islands.

Food: When they are not resting or preening, Black-necked Stilts spend much of the day wading in shallow waters to capture aquatic invertebrates, small crustaceans, amphibians, snails, and tiny fish. They prey on larval mosquitoes, soldier flies, brine flies, caddisflies, dragonflies, mayflies, crickets, grasshoppers, many kinds of beetles (including weevils), water-boatmen, crayfish, brine shrimp, tadpoles, and very small frogs and fish. These are captured with a quick peck, sometimes with the head partly (and quickly) submerged. Sometimes, they swing the bill side to side in the water, much as avocets do, to skim invertebrates from the surface or just below the surface. To capture small fish, they sometimes chase them into the shallows, where the fish become trapped. Seeds and vegetation form a tiny part of the diet.

Behavior: Black-necked Stilts are especially animated during the breeding season, when females select males for mating. Just before mating, the female stretches out the neck and preens; the male faces her and does the same. Both dip the bill in the water and preen the breast, and this action becomes increasingly frenzied, with much splashing just prior to copulation. Afterward, the pair crosses their bills and runs together for a few steps. Both sexes participate in incubation and chick-rearing, though males appear to accompany older chicks more often than females. The pair bond is maintained through nesting and chick rearing, but if a nest fails, stilts sometimes begin again with a different mate. Stilts nest in loose colonies and are considered semicolonial, defending individual territories (and guarding mates) but joining with other nesting stilts to drive out threats. Predators, and humans, that happen near nesting stilts soon learn that they are not welcome: any birds that are not incubating often fly around or even form a ring around the predator, calling loudly as they leap up and down, flapping their wings (called a “Popcorn Display” by researchers). They also perform distraction displays, such as pretending to be incubating, then flying off to another site and repeating the deception. Sometimes, stilts will strike humans from behind with their legs if the humans approach the nest too closely. Adult stilts are highly territorial. Males often challenge one another early in the nesting season, stretching out into upright stances, or racing at each other with necks contracted and tails raised. Intense conflicts sometimes involve aerial combat in which males

strike each other with bills and legs. Territoriality extends to driving out young birds as well: adults sometimes attack stilt chicks that are not their own and even avocet chicks. Small chicks can dive and swim underwater to avoid hostile adults and predators. When not breeding, Black-necked Stilts are still fairly territorial but often will roost and forage in close proximity, if never in the tight flocks formed by avocets. When resting, stilts sometimes draw up one leg, resting on the other, or sit on the ground, resting on the lower, longer part of the leg (called the tarsometatarsus).

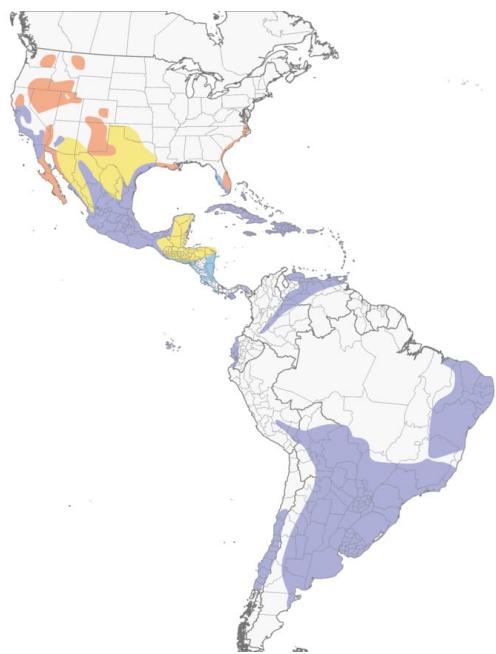
Conservation: Black-necked Stilt populations have been stable between 1966 and 2015 in continental North America, according to the

Color Pattern: None

Fun Facts

- > Five species of rather similar-looking stilts are recognized in the genus
- > The Hawaiian subspecies of Black-necked Stilt (
- > Black-necked stilts sometimes participate in a "popcorn display," which involves a group of birds gathering around a ground predator and jumping, hopping, or flapping to drive it away from their nests.
- > The oldest recorded Black-necked Stilt was at least 12 years, 5 months old. It was banded in Venezuela and refound in the Lesser Antilles.
- > Black-necked Stilt and American Avocet belong to the same family (Recurvirostridae), and they are capable of hybridizing and producing young. The hybrid offspring are rare. Birders who have documented this cross have given it the nickname "avo-stilt."

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Black-necked)

Tall and lanky shorebird with a delicate-looking body. Black above and white below with pink legs.



Adult (White-backed)

Lanky, delicate looking shorebird. Individuals in South America (White-backed) have a white collar across upper back that North American birds lack.



Adult (Hawaiian)

Resident individuals on the Hawaiian Islands have more black on the

forehead and cheeks than individuals breeding in North America.



Adult (Black-necked)

In flight, its long pink legs stick out far beyond the tail. Note black wings and a white V on the back.



Juvenile (Black-necked)

Juveniles look similar to adults but are slightly browner with faint scalloping on the back and paler pink legs.



Adult (Black-necked)

Tall and slender shorebird with pink legs and a thin black bill.



Adult (Black-necked)

Found in shallow wetlands gracefully foraging for aquatic invertebrates.
Note dainty appearance and pink legs.



Adult (Black-necked)

Nests on the ground on matted vegetation, on small mounds above the water, or on floating mats of vegetation.



Adult (with American Avocet)

Found in shallow water wetlands often foraging with other Black-necked Stilts.

American Avocet

Bird Characteristics

Scientific Name: *Recurvirostra americana*

Order: Charadriiformes

Family Name: Recurvirostridae

Conservation Status: Low Concern

Length: 16.9-18.5 in (43-47 cm)

Weight: 9.7-12.3 oz (275-350 g)

Wingspan: 28.4 in (72 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1 brood

Egg Length: 1.6-2.4 in (4.2-6 cm)

Egg Width: 1.1-1.8 in (2.9-4.6 cm)

Incubation Period: 18-30 days

Egg Description: undefined

Condition at Hatching: Downy and able to walk.

Nest Placement: Male and female avocets select a nest site together. The male leads the female around making scrapes in the ground, until they both choose a spot to nest. They typically nest on islands or dikes, placing the nest on the ground with little or no surrounding vegetation.

Nest Description: The male or female makes a scrape in the ground with their breast and feet. They line the shallow depression with grass or other vegetation, feathers, pebbles, or other small objects, but sometimes the nest is completely unlined. Additional lining may be added to the nest throughout incubation, especially if rising waters threaten to flood the nest.

Bird Information

Habitat: American Avocets forage in shallow fresh and saltwater wetlands, salt ponds, impoundments, and evaporation ponds. They nest in areas with little or no vegetation along dikes and islands. During winter they also use intertidal mudflats, tidal lagoons, brackish impoundments, sewage ponds, rice fields, and flooded pastures.

Food: American Avocets forage for aquatic invertebrates in shallow water while wading or swimming. Their diet consists of beetles, water boatmen, midges, brine flies, fairy shrimp, water fleas, amphipods, and more. They also eat small fish and seeds from aquatic plants. They capture aquatic invertebrates in the water column by sweeping their bill side to side, a signature behavior called scything. With each step they put their slightly open bill in the water and move it in the direction of the outstretched foot, alternating sides with each step. They also capture prey by pecking and plunging. Pecking involves lunging out with their bill to peck at prey within the water column or in the wetland bottom. Individuals also plunge their head and neck underwater to grab prey in the water column. Foraging methods vary by time of day, flock size, and date. Scything and pecking occur more often during the day, while plunging is more common at night.

Behavior: American Avocets wade in shallow wetlands often less than 8 inches deep, but they also swim in deeper waters. On the breeding grounds, avocets breed in loose colonies and defend the nest site. Intruders are met with outstretched necks or a crouch-run where they ruffle their feathers, crouch down, and run at the intruder. Upon the arrival of a terrestrial predator, avocets may approach with a teetering gait and outstretched wings, as if on a tightrope. They also try to distract the predator by crouching on the ground as if incubating, only to move and crouch again in a new location. In its pre-copulation display, the male American Avocet preens himself with water, gradually gaining intensity to the point of frenzied splashing just before mating with the female. After mating, the pair intertwines their necks with their bills crossed and runs forward. The pair stays together for a single breeding season. One notable display, known as "circling," occurs before and during nesting and involves two pairs, or a pair and a third individual. Individuals face each other in a circle and stretch their bills toward each other while calling and rotating in a circle. On the wintering grounds they forage and rest in flocks often with other shorebirds, especially the Black-necked Stilt.

Conservation: American Avocets are common and their populations have been stable between 1966 and 2015, according to the

Color Pattern: None

Fun Facts

-> In response to predators, the American Avocet gives a series of call notes that gradually

rise in pitch, simulating the Doppler effect and making its approach seem faster than it actually is.

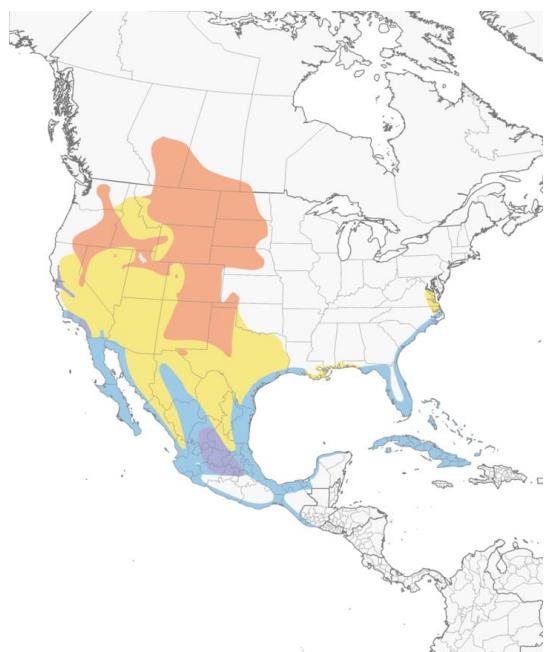
-> A female American Avocet sometimes lays eggs in the nest of another female, who incubates them without noticing. This is called “brood parasitism,” and American Avocets may do it to other species, too; American Avocet eggs have been found in the nests of Mew Gulls. On the other hand, species such as Common Terns and Black-necked Stilts may also parasitize avocet nests. In the case of the stilts, the avocets reared the hatchlings as if they were their own.

-> American Avocets place their nests directly on the ground without the benefit of shrubs to provide shade. To keep the eggs from overheating during incubation, they dip their belly feathers in water.

-> American Avocet chicks leave the nest within 24 hours of hatching. Day-old avocets can walk, swim, and even dive to escape predators.

-> The oldest recorded American Avocet was at least 15 years old when it was found in California, where it had been banded a decade and a half earlier.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Long-legged shorebird with a long, upturned bill. Breeding birds have a rusty head and neck and a black-and-white body.



Nonbreeding adult/immature

Tall shorebird with an upturned bill. Nonbreeding birds have a grayish white head.



Nonbreeding/immature

In flight, note black patch on the back.



Breeding adult

Swings its long upturned bill through shallow water to catch small invertebrates.



Breeding adult

Tall and graceful shorebird with a striking black-and-white body, a rusty head and neck, and an upturned bill. Females tend to have more sharply curved bills than males.



Juvenile

Young leave the nest within 24 hours. Juveniles are downy with a mottled back, gaining adultlike plumage as they age. Juveniles have a straighter bill than adults.



Breeding adult

Often wades while foraging but also swims. Males tend to have less curve in the bill than females.



Breeding adult

Found in shallow fresh and saltwater wetlands.

Spotted Sandpiper

Bird Characteristics

Scientific Name: *Actitis macularius*

Order: Charadriiformes

Family Name: Scolopacidae

Conservation Status: Low Concern

Length: 7.1-7.9 in (18-20 cm)

Weight: 1.2-1.8 oz (34-50 g)

Wingspan: 14.6-15.8 in (37-40 cm)

Basic Description: The dapper Spotted Sandpiper makes a great ambassador for the notoriously difficult-to-identify shorebirds. They occur all across North America, they are distinctive in both looks and actions, and they're handsome. They also have intriguing social lives in which females take the lead and males raise the young. With their richly spotted breeding plumage, teetering gait, stuttering wingbeats, and showy courtship dances, this bird is among the most notable and memorable shorebirds in North America.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-5 broods

Egg Length: 1.1-1.4 in (2.9-3.5 cm)

Egg Width: 0.9-1.0 in (2.2-2.6 cm)

Incubation Period: 19-22 days

Egg Description: Off-white, pinkish, or pale green speckled with brown.

Condition at Hatching: Downy, coordinated, eyes open, and quickly able to begin eating and walking.

Nest Placement: Either the male or the female may choose a nest location. Nests are always located near the edge of a body of water, usually within about 100 yards of the shore. The nest is typically placed under the shade of a broad-leaved plant. If predators are numerous, the nest

is more likely to be under thicker vegetation such as raspberries or nettles. They are not averse to gravel pits, farm ponds, or even wetlands created by mining operations. They will often nest near or within Common Tern colonies when this species is present.

Nest Description: Nest building is an important part of courtship. A pair may begin several nests during the process, but those are rarely finished. The actual nest, built after the pair has formed and courtship is over, is a 2–3 inch depression scraped out in the soil and lined with dead grass and woody material. Often it is begun by the female and finished by the male.

Bird Information

Habitat: Spotted Sandpipers are the most widespread sandpiper in North America, and they are common near most kinds of freshwater, including rivers and streams, as well as near the sea coast. Their range includes water bodies in otherwise arid parts of the continent, and it extends into the mountains, where they may occur upwards of 14,000 feet above sea level. Breeding territories generally need to have a shoreline, a semiopen area where the nest will be, and patches of dense vegetation for sheltering the chicks. Spotted Sandpipers spend the winter along the coasts of North America or on beaches, mangroves, rainforest, and cloud forest up to 6,000 feet elevation in Central and South America.

Food: Spotted Sandpipers eat mostly small invertebrates such as midges, mayflies, flies (particularly their aquatic larvae), grasshoppers, beetles, worms, snails, and small crustaceans. They also eat small fish and may pick at dead fish as well. Spotted Sandpipers are active foragers—in addition to probing into sand or mud with their bills like most sandpipers, they also lunge at moving prey, pick insects off plants, or snap at airborne prey.

Behavior: Spotted Sandpipers are active foragers along streambanks and lake edges, walking in meandering paths and suddenly darting at prey—almost constantly bobbing their tail end in a smooth motion. Their flight style is equally distinctive: low over the water with stuttering bursts of fast wingbeats interspersed with very brief glides. Spotted Sandpipers were one of the first bird species described in which the roles of the males and females are reversed. Males are usually smaller, less aggressive and tend the nest and young. Meanwhile, the larger females fight for territories and may be polyandrous, meaning they mate with more than one male. Males that mate with the same female set up smaller territories within her territory and defend them against each other. Males tend to have more of the pituitary hormone prolactin than females. Prolactin promotes parental care, which may explain how the role reversal develops each season. The females perform courtship behavior, usually an elaborate swooping flight with the wings held open while the bird gives its

Conservation: Spotted Sandpiper is the most widespread breeding sandpiper in North America, but populations declined by almost 1.5% per year between 1966 and 2014, resulting in a cumulative decline of 51%, according to the North American Breeding Bird Survey. A 2012 study estimates a North American population of 660,000 breeding birds. Spotted Sandpiper is not on the

Color Pattern: In breeding season Spotted Sandpipers have bold dark spots on their bright white breast and an orange bill. The back is dark brown. In winter, a Spotted Sandpiper's breast is not spotted; it's plain white, while the back is grayish brown and the bill is pale yellow. In flight, Spotted Sandpipers have a thin white stripe along the wing.

Fun Facts

- > The Spotted Sandpiper is the most widespread breeding sandpiper in North America.
- > Female Spotted Sandpipers sometimes practice an unusual breeding strategy called polyandry, where a female mates with up to four males, each of which then cares for a clutch of eggs. One female in Minnesota laid five clutches for three males in a month and a half. This odd arrangement does not happen everywhere and often they are monogamous, with the female pitching in to help a little.
- > The female Spotted Sandpiper is the one who establishes and defends the territory. She arrives at the breeding grounds earlier than the male. In other species of migratory birds, where the male establishes the territory, he arrives earlier.
- > The male takes the primary role in parental care, incubating the eggs and taking care of the young. One female may lay eggs for up to four different males at a time.
- > Despite the gender roles, male Spotted Sandpipers have 10 times the testosterone that females have. However, that's only in absolute terms. During the breeding season, females see a sevenfold increase in their testosterone levels, perhaps accounting for their aggression and the overall role reversal between male and female.
- > The female may store sperm for up to one month. The eggs she lays for one male may be fathered by a different male in a previous mating.
- > Its characteristic teetering motion has earned the Spotted Sandpiper many nicknames. Among them are teeter-peep, teeter-bob, jerk or perk bird, teeter-snipe, and tip-tail.
- > The function of the teetering motion typical of this species has not been determined. Chicks teeter nearly as soon as they hatch from the egg. The teetering gets faster when the bird is nervous, but stops when the bird is alarmed, aggressive, or courting.
- > The oldest recorded Spotted Sandpiper was a male, and at least 12 years old when he was recaptured and rereleased during banding operations in New York.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Medium-sized shorebird with a unique bobbing behavior. Breeding adults have dark spots on the belly and an orangish bill.



Nonbreeding/immature

Often walks in a crouched position. Nonbreeding birds are brownish above with a bit of brown on the breast. Note yellow legs.



Nonbreeding/immature

Flies with stuttering wingbeats (quick, snappy wingbeats interspersed with glides).



Breeding adult

Medium-sized shorebird. Breeding birds have a heavily spotted breast and an orangish bill.



Nonbreeding/immature

Nonbreeding birds and juveniles lack the spotted breast. Brownish above with a brown wash on the breast and a white belly. Often crouches low and bobs its tail up and down.



Breeding adult

Most often found on the ground, but sometimes perches on trees or posts, while taking care of young.



Nonbreeding adult

Found almost anywhere near water, and often inland along streambanks, rivers, ponds, lakes, and beaches, particularly on rocky shores.

Ruddy Turnstone

Bird Characteristics

Scientific Name: *Arenaria interpres*

Order: Charadriiformes

Family Name: Scolopacidae

Conservation Status: Low Concern

Length: 6.3-8.3 in (16-21 cm)

Weight: 3.0-6.7 oz (84-190 g)

Wingspan: 19.7-22.4 in (50-57 cm)

Basic Description: A shorebird that looks almost like a calico cat, the Ruddy Turnstone's orange legs and uniquely patterned black-and-white head and chest make them easy to pick out of a crowd. These long-distance migrants breed in the arctic tundra, but spend the off seasons on rocky shorelines and sandy beaches on both North American coasts (as well as South America, Eurasia, Africa, and Australia). They use their stout, slightly upturned bill to flip debris on the beach to uncover insects and small crustaceans.

Nesting Characteristics

Bird Information

Habitat: Ruddy Turnstones breed along rocky coasts and in the tundra across the High Arctic. In North America they breed in sparsely vegetated tundra near marshes, streams, and ponds. During migration they stop along coastal rocky and sandy beaches, mudflats, and shorelines of freshwater lakes to refuel. On their wintering grounds they congregate along rocky shorelines, mudflats, deltas, and sandy beaches.

Food: Ruddy Turnstones feed primarily on adult and larval flies and midges during the breeding season. They uncover their prey by flipping over rocks, pebbles, shells, or seaweed with their stout, slightly upturned bills. They also eat spiders, beetles, bees, and wasps. During the nonbreeding season they have a more diverse diet, eating everything from small crustaceans, to mollusks, to bird eggs. If they come across an unattended gull or tern nest they readily break open the eggs and eat the contents. They also pick at dead fish and mammals that wash up on the shores in early summer when insects have yet to emerge.

Behavior: undefined

Conservation:

Color Pattern: Breeding males have unique black-and-white markings on the head and throat and a chestnut and black variegated (calico catlike) pattern on the back. Breeding females are paler than males. Nonbreeding adults have brown ghosting of the breeding plumage pattern. Juveniles look similar to nonbreeding birds, but have rusty edges to the feathers. All Ruddy Turnstones have orange legs, but they are brighter during the breeding season. In flight, Ruddy Turnstones show a unique color pattern: white stripe down the back, black tail stripe, white rump, and white stripe down the wings.

Fun Facts

-> For shorebirds like the Ruddy Turnstone, getting fat is critical. Unlike humans, which use carbohydrates as fuel, birds use fat to power their migrations. Birds that don't get fat enough before they depart often leave later and some may not even make it to the breeding or wintering grounds.

-> Walking on wet and slippery rocks can be treacherous for just about anyone without good gripping shoes. Ruddy Turnstones have special feet that are somewhat spiny, with short, sharply curved toenails that help them hold on. They also have a low center of gravity thanks to their short legs that helps keep them anchored.

-> Young turnstones need to grow up and learn to fly quickly. They take their first flight when they are around 19 days old and fly thousands of miles to the nonbreeding grounds 2 days later. To make things harder, their parents will have departed by this time, leaving the youngsters to make their first migration on their own.

-> There are about 350 species of shorebirds (order Charadriiformes) in the world, but there are only 2 turnstones, the Ruddy Turnstone and the Black Turnstone, both of which occur in North America.

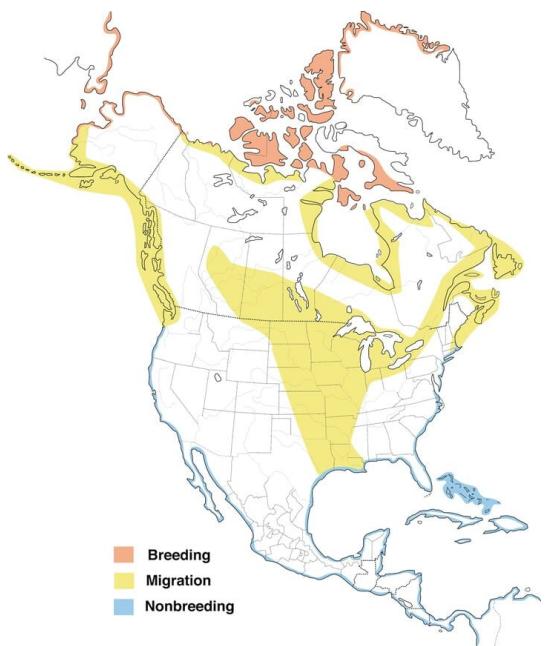
-> Ruddy Turnstones need to fly fast to cover the enormous distances between their breeding and nonbreeding grounds. Flight speeds of turnstones average between 27 and 47 miles per hour.

-> In 1758, Linnaeus described the Ruddy Turnstone based on a specimen collected in Gotland, Sweden.

-> Ruddy Turnstones breeding in western Alaska and eastern Siberia are world travelers: they take different migratory routes depending on the season. In spring they head north overland through Asia from wintering areas in the North and South Pacific and Australia. In fall they head south via the Pribilof and Aleutian Islands in the Bering Sea, flying mostly over the open Pacific Ocean before reaching their southern hemisphere wintering grounds.

-> The oldest recorded Ruddy Turnstone was a male, and at least 16 years, 11 months old, when he was recaptured and rereleased during banding operations in New Jersey in 2012. He had been banded in Delaware in 2001.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Short, stocky, oval-shaped shorebird with a stout and slightly upturned bill. Breeding birds have a calico patterned back and a black-and-white face. Note orange legs.



Nonbreeding adult

Short, stocky, oval-shaped shorebird with a stout and slightly upturned bill. Nonbreeding birds have a brown ghosting of the breeding plumage pattern and orange legs.



Nonbreeding/immature

In flight, note the white stripe down the back, a black tail stripe, a white rump, and white stripes down the wings.



Breeding adult
None



Juvenile
Juveniles look like nonbreeding birds, but have rusty edges to the feathers on the upperparts.



Juvenile
None



Breeding adult

Flips rocks, pebbles, and seaweed along shorelines in search of food with stout but sharply pointed bill.



Nonbreeding adult

Stocky and short-legged shorebird with orange legs. Nonbreeding birds are brownish overall with a rounded brown chest patch.



Habitat

Breeds in the tundra. Uses freshwater shorelines, mudflats, rocky shorelines, and sandy beaches during migration and winter.

Dunlin

Bird Characteristics

Scientific Name: *Calidris alpina*

Order: Charadriiformes

Family Name: Scolopacidae

Conservation Status: Low Concern

Length: 6.3-8.7 in (16-22 cm)

Weight: 1.7-2.7 oz (48.7-75.9 g)

Wingspan: 14.2-15.0 in (36-38 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1 brood

Egg Length: 1.3-1.5 in (3.39-3.86 cm)

Egg Width: 1.0-1.0 in (2.46-2.64 cm)

Incubation Period: 20-22 days

Egg Description: undefined

Condition at Hatching: Active and covered with down.

Nest Placement: Males normally select the nest site. Nests are set in tundra vegetation, often near clumps of grass.

Nest Description: Males make several scrapes (depressions in the tundra vegetation) using their feet and breast, then sometimes line the scrape with willow leaves, sedges, and grasses. Females select the site that will serve as the actual nest. Nests average about 3.9 inches tall, with the interior 3.8 inches across and 2.5 inches deep.

Bird Information

Habitat: Dunlin nest in subarctic and arctic tundra, usually in wet areas with slight ridges and ponds. They feed on the edges of marshes and hummocks, usually not far from where they nest, as well as in coastal lagoons. In winter, Dunlin roost and forage in large flocks in saltwater areas such as estuaries and lagoons, but many forage in wet or flooded farm fields. When the tide is high, they gather on beaches, islands, or the upper edges of marsh. During migration, Dunlin stop over in sewage treatment ponds, moist harvested agricultural fields, and muddy edges of farm ponds, rivers, and lakes. Typically, they select areas where the water is less than 2 inches deep.

Food: Like other small sandpipers, Dunlin eat mostly invertebrates found in mud, fine sand, or soil. They forage by picking organisms they see or by probing into the substrate with their bills. Their sensitive bill tips enable them to detect prey by touch, allowing them to feed at night (which helps them take advantage of tidal cycles). They forage by repeatedly probing the area around them, then walking forward. Unlike similar-sized species such as the Curlew Sandpiper and Stilt Sandpiper, Dunlin normally does not insert the bill deeply into the substrate to find prey—in fact, most probe less than a quarter-inch deep. The prey they consume include earthworms, marine worms, midges, flies, craneflies, beetles, spiders, snails, blue mussels, small clams, and amphipods. Dunlin also eat small amounts of plant matter, mostly seeds. On rare occasions they eat tiny fish. They consume their prey immediately, using rapid bill movements and water tension in the bill to carry prey up to the mouth.

Behavior: In spring, male Dunlin arrive on the breeding grounds ahead of females and set up nesting territories as the snow and ice melt from the tundra. They mark territories with flights and song, a burry, reverberating, descending trill unlike any other sound of the tundra. In display, they fly over the territory with rapid, fluttering wingbeats, punctuated by short glides on cupped wings. They also sometimes call and sing from the ground, raising one wing. Their territories range from 0.5 to 18 acres in size. Male Dunlin drive other males from their territories, usually by chasing them in flight, but they feed peaceably with other males in ponds outside the territory. Dunlin are largely monogamous, and both sexes incubate the eggs and defend the young. At all other times of year, they are gregarious, gathering in small to very large flocks.

Conservation: undefined

Color Pattern: None

Fun Facts

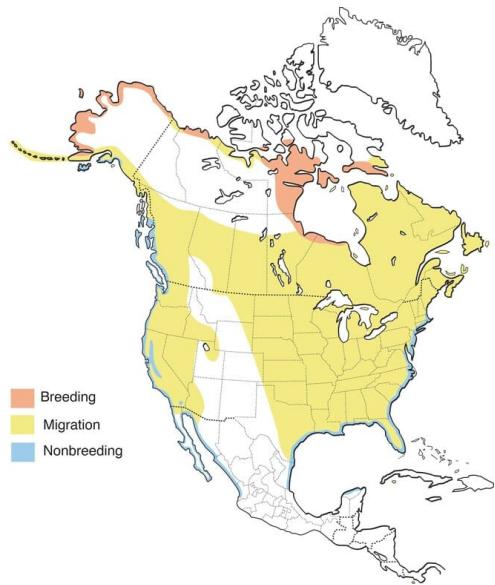
-> The name Dunlin comes from

-> Shorebird hybrids are very rare, but careful observation by birders have turned up hybrids between Dunlin and at least two other arctic-nesting species: White-rumped Sandpiper and Purple Sandpiper.

-> Dunlin breeding in northern Alaska apparently move westward, skipping the rest of North America and migrating down the eastern side of Siberia to Japan and China.

-> The oldest recorded Dunlin was at least 12 years, 5 months old when it was recaptured and rereleased during banding operations in California.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Stocky, medium-sized shorebird with a long, drooping bill. Breeding adults have a distinctive black belly and a rusty mottled back. Note black legs.



Nonbreeding adult

Chunky shorebird with a short neck and a long drooping bill. Nonbreeding birds have a grayish brown hood and a brownish back.



Breeding adult

Breeds in wet coastal tundra.



Breeding adult

Medium-sized, short-necked sandpiper with a long drooping bill. Breeding birds have a black belly patch.



Juvenile

None



Juvenile

Stocky, short-necked shorebird. Juveniles have mottled backs and brownish faces. Black belly feathers grow in as they age.



Nonbreeding adult

In flight, note darker line of feathers down the center of the tail and white

outer tail feathers.



Breeding adult

Breeding adults have a rusty mottled back. In flight, note dark stripe down the center of the tail and white outer tail feathers.



Habitat

Winters along mudflats, estuaries, marshes, flooded fields, sandy beaches, and shores of lakes and ponds.

Wilson's Snipe

Bird Characteristics

Scientific Name: *Gallinago delicata*

Order: Charadriiformes

Family Name: Scolopacidae

Conservation Status: Low Concern

Length: 10.6-12.6 in (27-32 cm)

Weight: 2.8-5.2 oz (79-146 g)

Wingspan: 16.1-17.3 in (41-44 cm)

Basic Description: Though the long tradition of “snipe hunt” pranks at summer camp has convinced many people otherwise, Wilson’s Snipes aren’t made-up creatures. These plump, long-billed birds are among the most widespread shorebirds in North America. They can be tough to see thanks to their cryptic brown and buff coloration and secretive nature. But in summer they often stand on fence posts or take to the sky with a fast, zigzagging flight and an unusual “winnowing” sound made with the tail.

Nesting Characteristics

Clutch Size: 2-4 eggs

Egg Length: 1.4-1.7 in (3.5-4.3 cm)

Egg Width: 1.0-1.2 in (2.6-3 cm)

Incubation Period: 18-20 days

Egg Description: Olive brown splotched with dark brown, black or purple.

Condition at Hatching: Active, covered with tan to chestnut down blotched with black, with a white streak on crown and over eye. The chicks leave the nest on the day of hatching.

Nest Placement: Followed by her partner, the female Wilson’s Snipe makes several scrapes before selecting a nest site on the ground close to or even surrounded by water. The nest is often placed atop or on the edge of a hummock and well hidden by sedges, grass, or sphagnum moss. Willow, alder, or other brush may obscure the nest from above.

Nest Description: The female Wilson's Snipe makes a shallow scrape in moist soil, then weaves a lining of coarse grasses to build a nest up to 7 inches across and 3 inches deep. She adds finer grasses to the inside, creating a more elaborate nest than the simple scrapes most shorebirds make. Before and after laying each egg the female adds a few grasses or sedges from the edge of the nest site.

Bird Information

Habitat: Wilson's Snipes can be found in all types of wet, marshy settings, including bogs, fens, alder and willow swamps, wet meadows, and along rivers and ponds. They avoid areas with tall, dense vegetation, but need patches of cover to hide in and to provide a safe lookout for predators. In the western U.S., look for Wilson's Snipes in wetlands with sedges, rushes, and cattails, including wet pastures and other agricultural fields. In the South, Wilson's Snipes winter in rice and sugarcane fields.

Food: Wilson's Snipes feed mainly on insect larvae, including flies such as crane, horse and deer flies as well as beetles, dragonflies, crickets, grasshoppers, ants, mayflies, butterflies, caddis flies and moths. Other invertebrate prey include snails, crustaceans, and worms. Wilson's Snipes use their flexible bills to probe for food in wet soil and can swallow small prey without having to pull their bill from the soil. They occasionally eat small vertebrates including lizards, frogs, fish, and nestling birds. Plant materials make only a minor contribution to their diets.

Behavior: This elusive bird sleeps much of the day, then feeds around dusk and dawn. They probe for insect larvae and other prey in marshes, bogs, along pond and river edges, and in other wet settings, using the sensory receptors at the tip of their long, straight bills to locate food. Despite their somewhat pudgy, unbalanced look, Wilson's Snipe are strong, fast flyers reaching speeds of more than 60 miles per hour. If you flush one, it will burst from cover with a characteristic zigzagging flight that distinguishes it from other sandpipers. These birds are best known for their dramatic "winnowing" courtship displays: as a snipe (usually a male but sometimes a female) circles and dives over the breeding territory, air rushes over the outspread tail feathers. This creates a haunting, whirring

Conservation: Wilson's Snipe is widespread and overall populations remained stable between 1966 and 2014, according to the North American Breeding Bird Survey. The global breeding population, which is shared between the U.S. and Canada, is estimated at 2 million individuals. The species is not on the

Color Pattern: These birds are intricately patterned in buff and brown stripes and bars. The dark head has prominent buffy to whitish stripes. The dark back has three long buffy streaks, one running down each edge, one down the center. The buff chest is streaked and spotted with brown; the sides are heavily barred with black. In flight, the wings are dark above and below.

Fun Facts

-> Wilson's Snipe look so stocky thanks in part to the extra-large pectoral (breast) muscles that make up nearly a quarter of the bird's weight—the highest percent of all shorebirds.

Thanks to their massive flight muscles this chunky sandpiper can reach speeds estimated at 60 miles an hour.

-> Wilson's Snipe feed by burying their bills deep into soft, wet soil to probe for insect larvae, worms, and other invertebrate prey. The bill's flexible tip can open to grasp food while the base of the bill stays closed. Snipe can slurp small prey from the mud without having to remove their bill from the soil.

-> Because a Wilson's Snipe's eyes are set far back on its head, it can see almost as well behind as in front and to the sides. This arrangement makes it difficult for a potential predator to sneak up on a feeding snipe—it almost literally has "eyes in the back of its head."

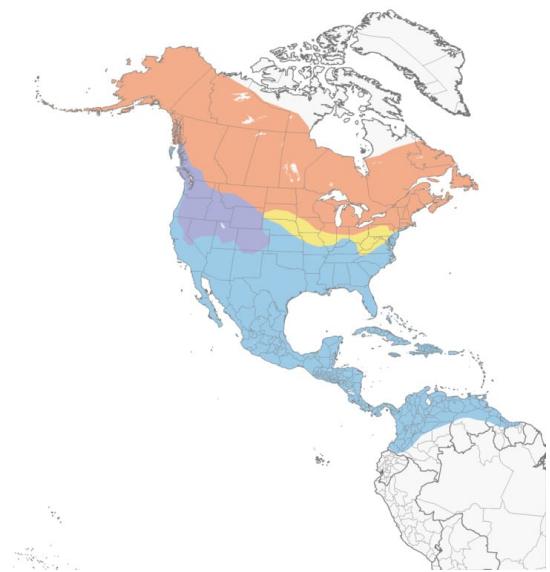
-> The word "sniper" originated in the 1770s among British soldiers in India who hunted snipe as game. The birds are still hunted in many countries, including the U.S., though their fast, erratic flight style means they are difficult targets.

-> Although only the female tends the eggs and nestlings, Wilson's Snipe parents split up the siblings once they're ready to fledge. The male takes the two oldest; the female takes the younger two with her. After they leave the nest the mates have no further contact.

-> Researchers have done wind tunnel tests with Wilson's Snipe feathers to try and duplicate the "winnowing" sound that's made as birds fly with their tail feathers fanned. They found that it's the outermost tail feathers, or rectrices, that generate the sound, which apparently happens at airspeeds of about 25 miles per hour.

-> The oldest known Wilson's Snipe was at least 9 years, 3 months old, based on a band recovered from a bird that was shot in Newfoundland and Labrador, Canada.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Medium-sized pudgy shorebird with short, stocky legs. Intricately patterned with 3 long buffy streaks down the back and a striped head.



Adult male

Displaying males make a curious whistling noise (“winnowing”), created by air passing over modified outer tail feathers.



Adult

Medium-sized chunky shorebird with a long bill. Note white belly, barred flanks, and dark underwings.



Adult

Long-billed shorebird of inland wetlands. Usually found foraging on the ground, but also perches on posts or stumps.



Adult (with Long-billed Dowitcher)

Smaller than a Long-billed Dowitcher (left) with shorter legs and a pudgier body. Note buffy streaks down the back and striped head.



Adult

Pudgy shorebird with a long bill and short tail. Note barring on the sides and 3 buffy streaks down the back.



Habitat

Found in muddy pond edges, damp fields, and other wet, open habitats often with thick, low vegetation where these well-camouflaged birds can quickly disappear.

American Woodcock

Bird Characteristics

Scientific Name: *Scolopax minor*

Order: Charadriiformes

Family Name: Scolopacidae

Conservation Status: Declining

Length: 9.8-12.2 in (25-31 cm)

Weight: 4.1-9.8 oz (116-279 g)

Wingspan: 16.5-18.9 in (42-48 cm)

Basic Description: Superbly camouflaged against the leaf litter, the brown-mottled American Woodcock walks slowly along the forest floor, probing the soil with its long bill in search of earthworms. Unlike its coastal relatives, this plump little shorebird lives in young forests and shrubby old fields across eastern North America. Its cryptic plumage and low-profile behavior make it hard to find except in the springtime at dawn or dusk, when the males show off for females by giving loud, nasal

Nesting Characteristics

Clutch Size: 1-5 eggs

Egg Length: 1.4-1.7 in (3.6-4.3 cm)

Egg Width: 1.1-1.2 in (2.7-3.1 cm)

Incubation Period: 20-22 days

Egg Description: Grayish orange with splotches of brown, violet-gray or blue-gray.

Condition at Hatching: Active, well developed, and covered with thick gray and brown down.

Nest Placement: Woodcocks nest in exposed sites on the ground, usually in young upland woods.

Nest Description: The female makes a shallow depression in the leaf and twig litter, about 5 inches across and 1.5 inches deep. In some cases she lays eggs without hollowing out a nest bowl.

Bird Information

Habitat: Woodcocks nest in young, shrubby, deciduous forests, old fields, and mixed forest-agricultural-urban areas across the eastern United States and southern Canada. They display in forest openings and old fields in the springtime, and they often use clearings for roosting in the summer. On the western edge of their range, they may depend on moist, wooded riverside areas and wet meadows in young woodlands. Woodcocks spend the winter in similar habitats in southern part of breeding range, also moving into additional wintering habitat in Texas and on the southern edges of the Gulf States.

Food: American Woodcocks eat earthworms and other invertebrates they find in the soil, including snails, millipedes, spiders, flies, beetles, and ants. They forage by probing the soil with their long bills, which have flexible upper mandibles specialized for capturing and extracting earthworms. They sometimes rock their bodies backward and forward as they forage, shifting their weight heavily from foot to foot. The vibrations from this motion may prompt earthworms to move underground, making slight sounds that the woodcock may be able to hear or feel. They also eat small amounts of plant material, such as sedges, pigweed, and members of the rose family.

Behavior: The American Woodcock breeds early in spring, with males beginning their courtship displays—sky dancing at dawn and dusk—as early as December in the southern part of the range and as early as March in the north. Males mate with multiple females and give no parental care. The nesting female is quick to abandon a nest if it is disturbed in the early stages of incubation. Later on, she may respond to an intruder by first lying low and motionless, then flushing from the nest and feigning injury to distract the intruder. The female broods the nestlings only until they dry off; they all leave the nest together a few hours after hatching. She feeds the young for a week but they begin to probe for food on their own at 3-4 days. About a month later they become independent, moving around as individuals rather than with their siblings. Outside of the nesting season, woodcocks are generally solitary, though they may group into small clusters of 2–4 individuals. Physical contact between individuals is rare, but they may sometimes tug bills.

Conservation: The American Woodcock is fairly numerous, although it is hard to detect with standardized surveys like the North American Breeding Bird Survey or Christmas Bird Count. Best estimates from the Breeding Bird Survey suggest their populations have slowly been declining between 1966 and 2014; declines are most evident in New England, parts of the Mid-Atlantic, and Minnesota. This species is on the

Color Pattern: They are well camouflaged in light brown, black, buff, and gray-brown tones. The face is buffy, the crown blackish. They are light gray across the neck and back, with dark-and-light patterned shoulders and brown wings. The underparts are buffy to almost orange.

Fun Facts

-> The male woodcock's evening display flights are one of the magical natural sights of springtime in the East. He gives buzzy

-> Wouldn't it be useful to have eyes in the back of your head? American Woodcocks come close—their large eyes are positioned high and near the back of their skull. This arrangement lets them keep watch for danger in the sky while they have their heads down probing in the soil for food.

-> The conservationist Aldo Leopold wrote that the woodcock's mesmerizing sky dances were "a refutation of the theory that the utility of a game bird is to serve as a target, or to pose gracefully on a slice of toast." His writing helped spur the mid-twentieth century conservation movement.

-> Some males display at several singing grounds and mate with multiple females. The female often visits four or more singing grounds before nesting, and she may keep up these visits even while she cares for her young. The male gives no parental care, and continues to display long after most females have laid eggs.

-> Young woodcocks leave the nest a few hours after hatching, but for their first week they depend on their mother for food. They start to probe in dirt at three or four days after hatching.

-> The woodcock is also known as the timberdoodle, Labrador twister, night partridge, and bog sucker.

-> The oldest American Woodcock on record was 11 years, 4 months old.

-> The American Woodcock probes the soil with its bill to search for earthworms, using its flexible bill tip to capture prey. The bird walks slowly and sometimes rocks its body back and forth, stepping heavily with its front foot. This action may make worms move around in the soil, increasing their detectability.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Plump, short-legged and short-necked shorebird with a long, straight bill. Note cinnamon underparts and gray collar.



Adult

On spring nights, males perform conspicuous displays, giving a buzzy peent call, and launching into the air.



Adult

Stocky, short-necked shorebird with a long bill that blends in well with vegetation. Note gray stripes down back.



Adult

Chunky, short-legged shorebird of forests. Walks along the ground in a rocking pattern while probing for earthworms.



Adult

Found in forests, forest edges, old fields, and wet meadows of eastern North America.



Adult

None



Adult
None

Laughing Gull

Bird Characteristics

Scientific Name: *Leucophaeus atricilla*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Low Concern

Length: 15.3-18.1 in (39-46 cm)

Weight: 7.2-13.1 oz (203-371 g)

Wingspan: 36.2-47.2 in (92-120 cm)

Basic Description: Swirling over beaches with strident calls and a distinctive, crisp black head, Laughing Gulls provide sights and sounds evocative of summer on the East Coast. You'll run across this handsome gull in large numbers at beaches, docks, and parking lots, where they wait for handouts or fill the air with their raucous calls. Laughing Gulls are summer visitors to the Northeast and year-round sights on the coasts of the Southeast and the Gulf of Mexico.

Nesting Characteristics

Clutch Size: 2-4 eggs

Number of Broods: 1 brood

Egg Length: 1.8-2.4 in (4.5-6 cm)

Egg Width: 1.3-1.6 in (3.2-4 cm)

Incubation Period: 22-27 days

Nestling Period: 35 days

Egg Description: Slightly pointed at one end. Brown with black splotches.

Condition at Hatching: Chicks may leave nest cup at 1 day old, though they typically stay on platform for several days. They hatch covered in down that's so well camouflaged the chicks are almost invisible.

Nest Placement: Laughing Gulls may place their nests on sand, rocks, mats of dead

vegetation, or hidden among the leaves of low plants. They typically look for slightly higher spots in order to minimize the chance of the nest being flooded by high tides or storm waters.

Nest Description: Both sexes help build the nest; sometimes the male begins the process and uses it to try and attract a mate. Males typically bring more of the nest material, and the female arranges it. She arranges saltmarsh vegetation and grasses to form a rim that's a foot across, containing a cup 6 inches in diameter and about 2.5 inches deep. She may attach the nest to the surrounding vegetation so that the nest doesn't get swept away if flooded. If storms or floods damage or soak the nest, the parents add more material to shore it up.

Bird Information

Habitat: Laughing Gulls are primarily coastal gulls and are only rarely found far inland. Look for them along beaches, in saltmarshes, in mangroves, or on agricultural fields or landfills near the coast. They nest in saltmarshes, on islands including artificial ones created from dredge spoils, and on sandy beaches—the main requirements being safety from terrestrial predators. They form colonies up to 25,000 pairs in size, and they are occasionally joined by species such as terns, larger gulls, Black Skimmers, and American Oystercatchers. On migration and in winter, Laughing Gulls are found along coasts and in bays and estuaries, as well as in landfills and on lakes a little ways inland.

Food: Like most gulls, Laughing Gulls have very broad palates. They eat many invertebrates, including earthworms, insects (including flying ones), snails, crabs, and crab eggs, as well as fish, squid, berries, garbage, offal, and handouts from beachgoers. They occasionally eat eggs of other birds (though not as frequently as larger gulls do)—John James Audubon saw them preying on Sooty Tern and Brown Noddy eggs and chicks, and they've also been reported eating Royal Tern eggs.

Behavior: Laughing Gulls wheel in the sky, stand in groups on beaches and parking lots, follow heavy machinery on agricultural fields or at landfills, and paddle in the water off docks and beaches. They are opportunistic, like most gulls, and often harry terns and pelicans to try to steal their catch. Look for Laughing Gulls hovering over the head of a pelican that has just dived, hoping for a fish to slip out of the larger bird's gullet. Laughing Gulls use ritualized displays to keep order among themselves. These involve exaggerated calls and movements: Laughing Gulls threaten each other or simply claim space by extending the neck and head, lowering them toward the ground and calling, tossing the head backward repeatedly while calling, or ruffling their feathers, nodding the head, and flapping the wings. They signal submissiveness by turning the head away from their opponents. Laughing Gulls are monogamous and pairs often stay together for several breeding seasons. Chicks are vulnerable to mink, Herring Gulls, Great Black-backed Gulls, owls, and harriers.

Conservation: Laughing Gulls are common and their populations increased between 1966 and 2015, according to the North American Breeding Bird Survey. This increase reflects the species' recovery from severe hunting in the late nineteenth century for their eggs and for plumes for the hat trade. The North American Waterbird Conservation Plan estimates a

continental population of 528,000-538,000 breeding birds. The species rates a 9 out of 20 on the Continental Concern Score. Laughing Gull is not on the

Color Pattern: Laughing Gulls are medium gray above and white below. Summer adults have a crisp black hood, white arcs around the eye, and a reddish bill. In winter, the hood becomes a blurry gray mask on a white head. The legs are reddish black to black. Immatures are much browner and more subtly patterned than adults; they take 2-3 years to gain adult plumage.

Fun Facts

-> The male and female Laughing Gull usually build their nest together. If a male cannot find a mate, he may start building a nest platform and then use it to attract a female.

-> The Laughing Gull is normally diurnal, or active during the day. During the breeding season it forages at night as well. It usually looks for food along the beach at night, but will also hover to catch insects around lights.

-> The adult Laughing Gull removes the eggshells from the nest after the eggs hatch. If the shells are not removed, a piece can become lodged on top of the slightly smaller unhatched third egg and prevent it from hatching.

-> Nest colonies in the northeastern United States were nearly eliminated by egg and plume hunters in the late 19th century. Populations have increased over the last century, following protection.

-> The oldest known Laughing Gull was at least 22 years old when it was killed in Maine in 2009, the same state where it had been banded in 1987.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Medium-sized gull with a thin and slightly drooping bill. Breeding adults have a black head, thin white eye crescents, and a red bill.



Nonbreeding adult

Nonbreeding adults have a bit of black smudging behind the eye, but are otherwise white with a medium gray back. Note the small white spots on the primaries.



Juvenile

Medium-sized gull with a thin, slightly drooping bill. Juveniles are brownish,

paler on the head and neck, with white eye crescents.



First winter

First winter gulls are starting to acquire gray feathers on their back and wings. The head and neck remains gray and smudgy. Note slightly drooping bill and dark primaries.



Second winter

Second winter gulls have a gray wash on their neck and chest with darker gray smudging on the head.



Breeding adult

In flight, note the dark underside of the primaries on breeding adults



First winter

First winter gulls in flight show dark primaries and a wide dark tail band.



Nonbreeding adult

Nonbreeding adults are mostly white and gray with a bit of gray smudging on the head above and behind the eye. Note the dark primaries with little to no white spots on the folding wings.



Habitat

Found in groups in beaches, salt marshes, mangroves, or on agricultural fields or landfills near the coast.

Ring-billed Gull

Bird Characteristics

Scientific Name: *Larus delawarensis*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Low Concern

Length: 16.9-21.3 in (43-54 cm)

Weight: 10.6-24.7 oz (300-700 g)

Wingspan: 41.3-46.1 in (105-117 cm)

Basic Description: Familiar acrobats of the air, Ring-billed Gulls nimbly pluck tossed tidbits from on high. Comfortable around humans, they frequent parking lots, garbage dumps, beaches, and fields, sometimes by the hundreds. These are the gulls you're most likely to see far away from coastal areas—in fact, most Ring-billed Gulls nest in the interior of the continent, near freshwater. A black band encircling the yellow bill helps distinguish adults from other gulls—but look closely, as some other species have black or red spots on the bill.

Nesting Characteristics

Clutch Size: 2-4 eggs

Number of Broods: 1 brood

Egg Length: 2.0-2.6 in (5-6.6 cm)

Egg Width: 1.4-1.8 in (3.6-4.6 cm)

Incubation Period: 20-31 days

Nestling Period: 4-5 days

Egg Description: Pale olive gray with dark brown speckles.

Condition at Hatching: Covered in camouflaged gray and brown down feathers; eyes open by end of the first day; may leave nest briefly by 2 days old.

Nest Placement: Ring-billed gulls nest in colonies numbering from 20 to tens of thousands of

pairs. They build their nests on the ground near freshwater, usually on low, sparsely vegetated terrain. They may nest on sandbars, rocky beaches, driftwood, bare rock, concrete, or soil. They often choose sites near or underneath low plants to hide them from aerial predators. Nest sites tend to be used for multiple seasons, by new or returning pairs.

Nest Description: The male and female cooperate in constructing the nest—a scrape in the ground lined with twigs, sticks, grasses, leaves, lichens, or mosses. Some nests are minimalist affairs with almost no lining. The nest's outer diameter ranges from about 10 to 25 inches, with an inner cup about 9 inches in diameter and 2 inches deep.

Bird Information

Habitat: Ring-billed Gulls are often found in and around urban, suburban, and agricultural areas. In coastal areas, Ring-billed Gulls frequent estuaries, beaches, mudflats, and coastal waters. In winter, these birds are common around docks, wharves, and harbors. Ring-billed Gulls are more commonly seen inland than most other gull species. They can be found at reservoirs, lakes, ponds, streams, landfills, parking lots, and shopping malls.

Food: Able to thrive on almost any available source of nutrition, Ring-billed Gulls eat mostly fish, insects, earthworms, rodents, grain, and garbage. Common fish prey include alewife, smelt, nine-spined stickleback, and yellow perch; insect meals feature primarily beetles, flies, dragonflies, and bugs. In the western U.S., many Ring-billed Gull populations find most of their food on farm fields, forgoing fish altogether. In addition to their more common fare, Ring-billed Gulls have been known to eat dates, cherries, blueberries, and strawberries, as well as French fries and other food discarded—or left unguarded—by people.

Behavior: Ring-billed Gulls are strong, graceful flyers. They can race along at more than 40 miles per hour, and they're adept at snatching food from the air. You may see these birds hovering, soaring, or poised and stationary in the wind. Adults play by repeatedly dropping objects, then swooping to catch them—perhaps honing their hunting moves. These gulls use a wide variety of foraging methods: walking around on land; stamping their feet in shallow water to uncover small invertebrates; skimming shallow water for small fish; nabbing insects out of the air. They steal food from other birds, hunt for small rodents, and scavenge along beaches, parks, and garbage dumps. Birds in large nonbreeding groups usually space themselves evenly, about 3–6 feet apart. Like many other gull species, when Ring-billed Gulls are feeling aggressive they'll lower their head, begin calling, and then raise their head up to their shoulders. This can escalate to an exaggerated toss of the head over the back while calling. To signal submission, a Ring-billed Gull will draw its head back in toward its shoulders and make shorter, calmer calls, sometimes tossing its head up or away from its opponent as well.

Conservation: After nearly succumbing to hunting and habitat loss, Ring-billed Gull populations increased in most areas between 1966 and 2014, according to the North American Breeding Bird Survey. The North American Waterbird Conservation Plan estimates a continental breeding population of 1.7 million birds, and rates the species a 5 out of 20 on the Continental Concern Score. Ring-billed Gull is not on the

Color Pattern: Adults are clean gray above, with a white head, body and tail; their black wingtips are spotted with white. They have yellow legs and a yellow bill with a black band around it. Nonbreeding adults have brown-streaked heads. During their first two years, Ring-billed Gulls are a motley brown and gray with a pink bill and legs.

Fun Facts

-> Ring-billed Gulls near Tampa Bay, Florida, became accustomed to feasting on garbage at an open landfill site. Then, in 1983, operators replaced the dumping grounds with closed incinerators. The thwarted scavengers found themselves another open dump, but the pattern continues all across the gull's range. When waste-management practices shift from open landfills to closed incinerators, gull numbers often drop.

-> Some Ring-billed Gull nests at study sites in California and Oregon contained pebbles the size and shape of gull eggs. The parents apparently pulled the pebbles into their nests from the surrounding ground, mistaking them for eggs gone astray.

-> Ring-billed Gull nesting colonies normally include a small percentage of two-female couples. Fertilized by an obliging male, each female spouse lays a clutch of eggs, leading to 5–7-egg "superclutches."

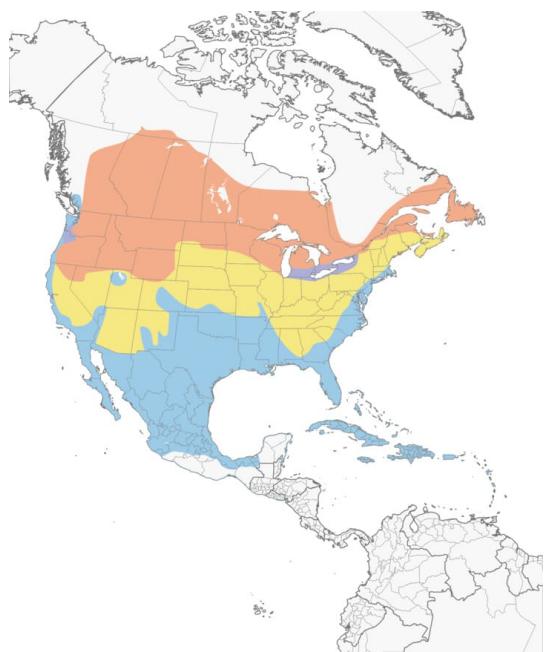
-> Many, if not most, Ring-billed Gulls return to breed at the colony where they hatched. Once they have bred, they are likely to return to the same breeding spot each year, often nesting within a few meters of the last year's nest site. Many individuals return to the same wintering sites each winter too.

-> Although it is considered a typical large white-headed gull, the Ring-billed Gull has been known to hybridize only with smaller, black-headed species, such as Franklin's, Black-headed, and Laughing gulls.

-> Migrating Ring-billed Gulls apparently use a built-in compass to navigate. When tested at only two days of age, chicks showed a preference for magnetic bearings that would take them in the appropriate direction for their fall migration. The gulls also rely on landmarks and high-altitude winds to provide directional cues.

-> The oldest recorded Ring-billed Gull was at least 27 years, 6 months old when it was found in New York.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Medium-sized gull with a shorter bill. Breeding adults have black band across their yellow bill, yellow legs, a pale eye, and a pale gray back.



Nonbreeding adult

Nonbreeding adults like this one have only a little bit of tan streaking on the head or neck, but others can have more tan streaking. Otherwise nonbreeding adults look similar to breeding adults with a black band across their yellow bill and a pale eye.



Second winter

Second winter gulls have tan streaking on the neck, head, and chest (like this one), but others have relatively little. Note the black band across the yellow bill.



First winter

First winter birds start acquiring gray feathers on their back, but still retain some brown feathers on their wings and have variable amounts of brown streaking and spotting on their head, neck, and underparts.



Juvenile

Juveniles are a patchwork of brown and white with a dark bill that is most often pink at the base.



Breeding adult

In flight, note the small white spot on the tips of the outer primaries and relatively little black on the primaries.



Juvenile

Juveniles in flight ave dark primaries and mottled inner wings with a wide, dark tail band.



First winter

First winter birds begin to acquire pale gray feathers on their back while retaining a mottled brown look overall. Note short bill that is pink at the base.



Habitat

Found along coastal beaches, inland lakes, garbage dumps, parking lots,

and freshly plowed fields.

Herring Gull

Bird Characteristics

Scientific Name: *Larus argentatus*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Common Bird in Steep Decline

Length: 22.1-26.0 in (56-66 cm)

Weight: 28.2-44.1 oz (800-1250 g)

Wingspan: 53.9-57.5 in (137-146 cm)

Basic Description: Spiraling above a fishing boat or squabbling at a dock or parking lot, Herring Gulls are the quintessential gray-and-white, pink-legged "seagulls." They're the most familiar gulls of the North Atlantic and can be found across much of coastal North America in winter. A variety of plumages worn in their first four years can make identification tricky—so begin by learning to recognize their beefy size and shape.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 2.6-3.0 in (6.5-7.6 cm)

Egg Width: 1.9-2.1 in (4.8-5.3 cm)

Incubation Period: 31-32 days

Nestling Period: 45-50 days

Egg Description: Light olive, buff, or greenish with darker splotches or speckling.

Condition at Hatching: Eyes open, covered in thick gray down with black spots; able to move around nesting area after several hours.

Nest Placement: Herring Gull pairs pick nesting sites together in the soft soil, sand, or short vegetation of their territory. To protect the nest from prevailing winds and hide it from predators,

it is usually placed next to a rock, log, or bush. This also hides it from the nearest neighbors. Crevices may be used as nest sites in rocky areas.

Nest Description: Several days before egg-laying, pairs hollow out up to four depressions 10–15 inches across with central depressions 4–8 inches wide and about the depth of an egg. They line the scrapes with vegetation, feathers, plastic, rope, or other materials. The pair chooses the final nest from these alternates. After the female lays her eggs, the pair continues to add vegetation to this nest throughout the monthlong incubation. Sand nests are sometimes left unlined or only sparsely lined.

Bird Information

Habitat: Herring Gulls' scavenging habits take them to open water, intertidal pools and shallows, mud flats, landfills, newly plowed fields, picnic grounds, and fish-processing plants. They roost and loaf, often in large mixed species groups, in open areas with good visibility for spotting predators, including agricultural and athletic fields, beaches, parking lots, airport runways, and garbage dumps. They breed near lakes in northern forests across Canada to Alaska and in some coastal areas. Colonies often form on isolated islands, barrier beaches, and marshy hummocks, which are safe from terrestrial predators (though aerial predators can still be a danger). City rooftops, for example, serve the same purpose.

Food: Herring Gulls prey on marine invertebrates, fish, insects, smaller seabirds, and even on adults, young, and eggs of other gulls. Along rocky shores, they take mussels, crabs, sea urchins, and crayfish. On mudflats, they seek worms, small clams, and mussels. In open water, they follow large predators (including fishing boats) that bring small fish, squid, and zooplankton to the surface. Newly plowed fields provide ready supplies of earthworms and other invertebrate prey. Herring Gulls are opportunistic scavengers on fish, carrion, and trash. Individual gulls often specialize on a food type. Most choose marine invertebrates like crabs, sea urchins, or clams, even though fresh-caught fish make their most calorie-, protein-, and fat-rich meals by far. In spite of this apparently poor choice, these gulls have the largest, heaviest eggs and the highest hatching success rates. The opportunism of gulls extends to raiding nests of other seabirds, and one or two males per large breeding colony may even specialize in cannibalizing chicks of others in the colony.

Behavior: Herring Gulls patrol shorelines and open ocean in widely scattered groups, soaring raptor-like and spiraling down to pick scraps off the surface. Individuals plunge-dive from near the surface and dip while paddling to take shallow prey. Rallying around fishing boats or refuse dumps, they are raucous and competitive, threatening and stealing from other birds. They'll prowl tide flats seeking out invertebrates, gobbling small items whole, picking apart larger prey, and dropping shellfish onto rocks to break them open. Tighter groups follow foraging whales, groups of dolphins, or schools of large fish in open water, hovering to nab small prey driven to the surface. Their opportunistic scavenging punctuates hours of bathing, preening, and "loafing" near food sources. ("Loafing" is a term behaviorists use to describe a bird that isn't doing much of anything; many seabirds spend long hours this way.) Males establish breeding territories and both members of a bonded pair defend it with threatening postures, warning

calls, and chase-attacks in air and on ground. Courtship rituals include mate-feeding, and pairs remain bonded as long as both live. They return to the same territories each breeding season and share the work through a month of incubation and three months of chick-raising. One parent is always at the nest until the chicks are at least a month old.

Conservation: Herring Gull populations declined by over 3.5% per year between 1966 and 2015, resulting in a cumulative decline of 83%, according to the North American Breeding Bird Survey. The North American Waterbird Conservation Plan estimates a continental population of over 246,000 breeding birds and lists it as a Species of Low Concern. The species rates an 11 out of 20 on the Continental Concern Score. Herring Gull is not on the

Color Pattern: Adults have light-gray backs, black wingtips, and white heads and underparts. In winter, dusky streaks mark their heads. Herring Gulls take four years to reach adult plumage. Juveniles are mottled brown; second-year birds are brown but show gray on the back. Third-years have more gray on the back and more white on the head and underparts. The legs are dull pink at all ages.

Fun Facts

-> The Herring Gull has extended its breeding range southward along the Atlantic Coast, and may be displacing the more southern Laughing Gull from some areas. At the northern end of its range, however, the Herring Gull is itself being displaced by increasing numbers of the Great Black-backed Gull.

-> Breeding brings special dietary challenges for Herring Gulls. During courtship, males feed their mates, losing fat reserves in the process. Then egg-laying reduces the females' protein and bone calcium, and they seek out marine invertebrates and fish to replenish stores. After chicks hatch, both parents feed them day and night for up to 12 weeks, splitting foraging shifts to offer each chick up to half a pound of food per day as it nears fledging.

-> Sibling rivalry is a problem in the bird world, too. The third chick in a Herring Gull clutch can have it especially tough. While the first two chicks hatch the same day, the third is born a day or two later, weighs less, gets less food, and grows more slowly.

-> Incubating Herring Gulls often pant to cool off. They orient their bodies to keep darker plumage out of direct sun as best they can, but short of dipping their feet and legs into water, their mouth lining is their best means of shedding heat.

-> An adult Herring Gull was spotted bait-fishing. It floated bits of bread on the surface of a Paris pond and attacked goldfish feeding on the bread. It ate none of the bread itself, indicating deliberate tool use.

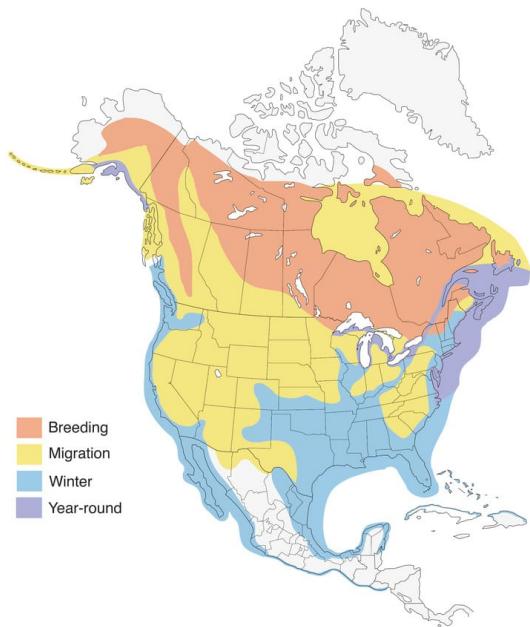
-> Herring Gulls are one of the most familiar gulls of the East Coast and many people just call them "seagulls." In fact, some two dozen different species of gulls live in North America, and they present almost endless opportunities for identification.

-> Herring Gulls prefer drinking freshwater, but they'll drink seawater when they must. Special glands located over the eyes allow them to excrete the salt that would otherwise dehydrate most animals, including us. The salty excretion can be seen dripping out of their nostrils and off the ends of their bills.

-> Young Herring Gulls appear to be more migratory than adults. In some areas, such as the Great Lakes, most adults remain near their breeding grounds, but the nonbreeders move farther south in the fall.

-> The oldest recorded Herring Gull was at least 29 years, 3 months old when it was seen in the wild in Michigan in 2015 and identified by its band. It had been banded in Wisconsin in 1986.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult (American)

Large gull with a somewhat large, but slim bill and robust body. Breeding adults have clean white heads and underparts with pale gray backs and wings. Note pale legs and yellow eye.



Nonbreeding adult (American)

Nonbreeding adults have extensive tan streaking on their neck. Note the pale gray upperparts and the pale eye.



Third winter (American)

Third winter birds start to acquire pale gray feathers on their back, but still

have extensive tan streaking on their head and neck. Note pale yellow eye.



Third winter (American)

This more advanced third winter bird looks nearly like an adult, with its pale gray back, but it still has streaking on the neck and a black band around its bill.



Second winter (American)

The second winter gull is heavily streaked throughout with a few gray back feathers coming in. Note dark primaries, lacking white tips.



Second winter (American)

Some second winter birds have less streaking on their necks and look very pale overall, but note its pale eye and pink legs.



Juvenile (American)

Juveniles are tan overall with tan-and-white checker boarding on their back.
Juveniles have an entirely dark bill and a dark eye.



Breeding adult (American)

In flight, they look barrel-chested and broad-winged. Pale gray above with dark wingtips with only small white spots (aka "mirrors") on the dark tips.



Juvenile (American)

Juveniles in flight have dark primaries without the white spots or mirrors
and a thick dark band across their tail.



Nonbreeding adult (European)

The European subspecies of Herring Gulls are virtually indistinguishable from the American subspecies. Note pale gray back, pale eye, pink legs, and slim bill.



Second winter (European)

Herring Gulls breeding in Europe are nearly identical to those breeding in North America. The European subspecies tends to be paler, but often not safely separated into subspecies except by location.



Juvenile (European)

Juvenile gulls have heavy tan streaking on their neck and underparts and a checkerboard back.



Juvenile (European)

Juvenile (European) Herring Gulls have a narrower black band across their tail than juvenile (American) Herring Gulls.



Breeding adult (Vega)

Birds breeding in northeastern Siberia and on St. Lawrence Island, Alaska are darker gray above with a red ring around the eye.



Juvenile (Vega)

Juvenile (Vega) gulls have paler heads than juvenile (American) Herring Gulls and less tan barring on the undertail coverts.



Habitat

Found along both coasts and near large reservoirs, lakes, and major rivers. They feed in habitats as diverse as open water, mudflats, plowed fields, and garbage dumps, and gather in almost any open space near food.

Least Tern

Bird Characteristics

Scientific Name: *Sternula antillarum*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Declining

Length: 8.3-9.1 in (21-23 cm)

Weight: 1.3-1.9 oz (36-54 g)

Wingspan: 18.9-20.9 in (48-53 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 0.9-1.4 in (2.36-3.57 cm)

Egg Width: 0.8-1.0 in (2.07-2.53 cm)

Incubation Period: 19-25 days

Nestling Period: 1-2 days

Egg Description: undefined

Condition at Hatching: Downy, eyes open, able to walk but stays in nest.

Nest Placement: Although both sexes make several nest scrapes, the female chooses the nest site itself, often near nests of other species such as Black Skimmers or Piping Plovers. The nest site is usually well drained and not far from foraging habitat.

Nest Description: The nest is simply a scrape in the sand or other substrate, sometimes with pebbles, shells, or bits of vegetation added. The scrape typically measures about 4 inches across by 0.8 inches deep.

Bird Information

Habitat: Least Terns nest in colonies on sandy, shelly beaches or islands on coastlines and rivers. They sometimes also nest in gravel pits, on dredge spoil, on flat gravel rooftops, or on dry mudflats. On rare occasions, parking lots, agricultural fields, and airports have hosted small colonies. In all of these settings, vegetation is sparse or absent. Generally, Least Terns return each year to past nest sites, but changes in nearby prey availability, predators, human activity, or substrate conditions can prompt them to move to other sites. For feeding, Least Terns use almost any aquatic environment, including oceans, bays, estuaries, rivers, streams, sloughs, dike fields, marshes, ponds, sand pits, and reservoirs. Little is known about Least Tern migration, but migrants are observed along ocean coastlines, river corridors, and occasionally far offshore. Wintering Least Terns in South America occupy ocean coastlines, bays, and estuaries, often near river mouths.

Food: Least Terns feed almost entirely on small fish. They catch fish by diving, usually in fairly shallow water, often hovering briefly before diving. They also occasionally eat shrimp, tadpoles, flying insects, and ants. Prey fish include sandlance, herring, hake, anchovy, menhaden, silversides, killifish, shiner perch, topsmelt, surfperch, mosquito fish, flat croaker, creek chub, sand shiner, plains minnow, gizzard shad, river carpsucker, and river shiner. During the nesting season, adults often carry small fish long distances to feed young or mates.

Behavior: Least Terns nest in colonies. Pairs are monogamous and often stay together over multiple nesting seasons. Pairs form or renew their bonds in spring on the nesting grounds or on "courting grounds" that can sometimes be quite far from the colony site.

Conservation: Least Tern numbers have declined severely in the last half-century. The species' habit of breeding in widely distributed colonies makes it difficult to monitor population trends with precision. Nevertheless, the

Color Pattern: None

Fun Facts

- > The Least Tern is the world's smallest tern—it weighs in at about the same size as a mockingbird.
- > The "interior" Least Tern, which nests in the vast Mississippi River drainage, was listed as Endangered in 1985 when the population was estimated at fewer than 2,000 birds. By 2021, following years of conservation efforts, the population had increased to 18,000, allowing the species to be removed from the Endangered Species List.
- > On the island of Bonaire, in the southern Caribbean, resourceful Least Terns sometimes take over deserted American Flamingo nests. These towers of mud provide a cool, dry microclimate and offer protection from some nest predators.

-> An American folk name for terns is “striker”—both because they hunt by striking the water and because adults dive-bomb anyone that approaches their nest. Along the Mid-Atlantic coast, Least Terns are often called “little strikers” colloquially.

-> The oldest recorded Least Tern was at least 24 years, 1 month old when it was found in New Jersey in 1981. It had been banded in 1957 in Massachusetts.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Smallest North American tern, with a yellow bill and white forehead. In flight, note pointed wings and black outer edge on the primaries.



Breeding adult

Smallest tern in North America. Thin yellow bill and yellow legs during the breeding season help separate it from similar species.



Nonbreeding adult

None



Breeding adult

Small with narrow, pointed wings. Breeding birds have a black crown and a white forehead. In flight, note black edge on outer flight feathers.



Immature

Immature birds have a small smudgy black patch behind the eye and a dark bill unlike adults, but they still have yellow legs.



Juvenile

Very small tern. Juveniles have a barred or scaly looking back and yellow legs. The crown patch on this bird is small and smudgy brown; others can have a darker black partial crown.



Nonbreeding adult

None



Immature

None



Breeding adult

None



Habitat

None



Habitat

Found along seacoasts, beaches, bays, estuaries, lagoons, lakes, and rivers. Breeds on sandy or gravelly beaches and banks of rivers or lakes.

Caspian Tern

Bird Characteristics

Scientific Name: *Hydroprogne caspia*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Low Concern

Length: 18.5-21.3 in (47-54 cm)

Weight: 18.7-27.6 oz (530-782 g)

Wingspan: 49.6-50.4 in (126-128 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1 brood

Egg Length: 2.3-2.9 in (5.8-7.3 cm)

Egg Width: 1.6-1.9 in (4.2-4.8 cm)

Incubation Period: 25-28 days

Nestling Period: 1-2 days

Egg Description: Buff, sparingly marked with dark spots and sometimes large irregular blotches.

Condition at Hatching: Eyes open. Covered with down and able to leave nest (usually after several days).

Nest Placement: Nest scrapes are made in open, sparsely vegetated flat areas with sand, shells, pebbles, gravel, or dirt. Both male and female select sites and make scrapes.

Nest Description: Most pairs line the nest scrape with dried vegetation and ring it with pebbles, shell fragments, sticks, or other objects found near the scrape. Nests average about 7.7 inches

across and 1.6 inches tall, with interior 6.3 inches across and 1.8 inches deep.

Bird Information

Habitat: Caspian Terns breed in a wide range of locales including ocean coasts and barrier islands as well as interior lakes and rivers. Like other terns, they set up their nesting colonies on flat, open areas with little vegetation, which allows them to detect predators from a long distance. These areas are often sandy or pebbly, sometimes strewn with shells and other debris or with scattered, short plants. They readily nest on artificial habitats such as dredge-spoil islands. Often, colonies are near other colonial waterbirds' nests, including shorebirds, gulls, and other tern species. During migration, Caspian Terns frequent just about any large freshwater body or river inland where they can forage and rest. On ocean coastlines they use islands, beaches, impoundments, rivermouths, and mudflats of estuaries. Unlike the smaller Royal Tern, Caspian does not venture far out to sea when foraging, although during migration they probably cross expanses of the Caribbean Sea and other stretches of saltwater. Wintering Caspian Terns inhabit very similar habitats as migrants, from interior rivers and lakes to ocean coastlines.

Food: Caspian Terns prey mostly on fish, supplementing their diet with crustaceans such as crayfish and occasionally large insects. To locate prey, they fly above water, between 10 and 100 feet high, and scan the water with bill pointed downward. When they spot prey they dive rapidly, usually submerging the body in the process but sometimes snatching the prey from the water without diving in. They usually consume fish in flight quickly after capture, unless the prey item is intended for the mate or chick. Caspian Terns are kleptoparasites (pirates) at times, chasing other terns species and forcing them to give up their catch. On rare occasions, they scavenge invertebrates or dead fish on beaches, and some have eaten small mammals, birds, eggs, salamanders, mussels, snails, crayfish, flies, and beetles. Known fish prey in North America include chum, coho, chinook, and sockeye salmon, steelhead, staghorn sculpin, topsmelt, jacksmelt, rainbow smelt, Pacific sardine, northern anchovy, shiner perch, alewife, yellow perch, and rock bass.

Behavior: Almost immediately on return to nesting areas, Caspian Terns begin courtship displays. Males capture fish and fly back and forth by groups of other terns, showing off their prize. Small groups of both males and females may follow or chase the male in the air. The male eventually lands next to a female and presents the fish, nodding to her as he does. Receptive females usually accept the fish, sometimes giving a juvenile-like feeding display in which they hunch down, jerk the bill upward several times, and call. Males sometimes repeat this process with several females before pairing occurs. In some cases, Caspian Terns arrive on breeding grounds already paired.

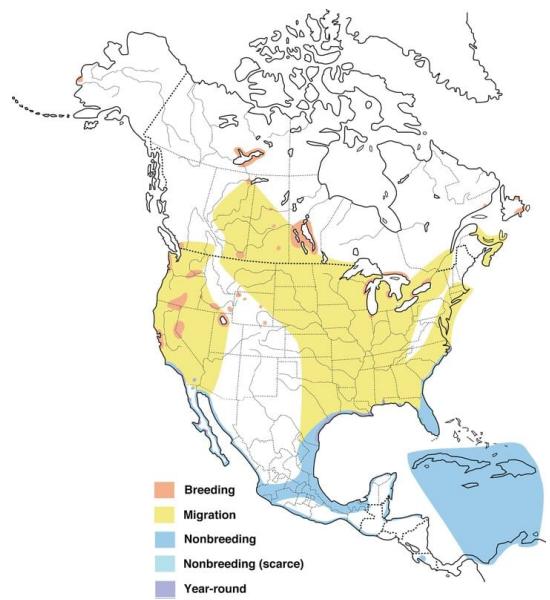
Conservation: Caspian Tern populations and their trends are hard to estimate because many colonies are in remote and inaccessible areas. Best estimates from the

Color Pattern: None

Fun Facts

- > The Caspian Tern got its name because early ornithologists associated it with the Caspian Sea, where the species is still fairly common.
- > The burly Caspian Tern is an aggressive defender of its breeding colony—chasing predatory birds and even sometimes attacking people who venture too close.
- > The world's largest breeding colony is on a small, artificial island in the Columbia River between Oregon and Washington, home to more than 6,000 breeding pairs each year.
- > Learning how to fish is hard. Young Caspian Terns get fed by their parents for months after fledging, even in some cases after migrating to the wintering grounds.
- > The oldest recorded Caspian Tern was at least 32 years, 1 month old when it was found in Illinois in 2018. It had been banded in Michigan in 1986. The average life span of Caspian Terns from the Great Lakes is estimated to be 12 years.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

The largest tern in the world. Note large red bill, tail with only a shallow fork, and black on the underside of outer primary feathers. Breeding adults have a fully black cap.



Breeding adult

Note massive, bright-red bill, sometimes with black tip. Breeding adults have fully black cap, sometimes raised in a short crest.



Nonbreeding adult

Large tern with very large bill. Nonbreeding adults have a grayish crown

and reduced black on the head.



Juvenile

Large tern with large reddish bill. Juveniles have brownish markings on the back and a brown-black crown that is often streaky on the forehead.



Breeding adult

None



Juvenile

None



Breeding adult

Large tern with massive, red, pointed bill. The large head can look smoothly rounded, squared off, or slightly crested. The outer primaries are dark, especially on the undersides.



Nonbreeding adult

Very large tern with broad wings and large, red bill. Undersides of outer primary feathers are dark. Nonbreeding adults and immatures have variable amounts of white on the forehead. Gaps in the wings usually are a sign that the bird is molting.



Juvenile

None



Flock

Occurs along seacoasts, barrier islands, estuaries, and saltmarshes, as well as some inland lakes and rivers.

Black Tern

Bird Characteristics

Scientific Name: *Chlidonias niger*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Declining

Length: 9.1-14.2 in (23-36 cm)

Weight: 1.8-2.1 oz (50-60 g)

Wingspan: 22.4-23.6 in (57-60 cm)

Basic Description: None

Nesting Characteristics

Number of Broods: 1 brood

Egg Length: 1.2-1.6 in (3.09-3.95 cm)

Egg Width: 0.9-1.0 in (2.19-2.61 cm)

Incubation Period: 19-21 days

Nestling Period: 18-24 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Male and female select the nest site together. This is usually well away from shore, in an area of shallow, still water sheltered from wind and waves, where the water's surface is about half-covered in cattails, bulrushes, or other emergent vegetation. They often use areas with dead, floating vegetation on which to place the nest. Some nests are set on muskrat feeding platforms or lodges.

Nest Description: Both male and female arrange dead vegetation from the nest area into a shallow mound with a central bowl on top of floating vegetation. Nests average about 6.9 inches across and 1.6 inches tall, with interior cup about 3.5 inches across.

Bird Information

Habitat: Black Terns nest in large freshwater wetlands, usually in dense marshes on the edges of shallow lakes or the open prairies or northern forests. They sometimes nest in rice fields or on river islands. Black Terns normally select marshes that are 50 acres or larger for nesting. Migrants turn up in many sorts of wetland habitats: sewage lagoons, river edges, lakes, marshes, lagoons, beaches, and over open ocean waters, even far out to sea. During the nonbreeding season, most Black Terns forage in tropical ocean waters with plenty of small fish, but they also frequent coastlines, lagoons, saltponds, estuaries, marshes, shrimp farms, and flooded farm fields, usually not far from the ocean.

Food: Black Terns eat mostly small fish and insects. They feed by coursing slowly above marsh vegetation and open water, watching for prey, which they capture by swooping, then taking the prey in the bill. Black Terns don't dive deeply into the water to capture prey the way other tern species do. They also capture flying insects, chasing after them in swift and erratic pursuit, much like a swallow or nighthawk. On occasion, they feed over fields on insects stirred up by tractors. During the breeding season, Black Terns eat grasshoppers, crickets, locusts, flies, ants, damselflies, dragonflies, mayflies, caddisflies, beetles, moths, spiders, crayfish, fish, tree frogs, and small lizards. During the nonbreeding season, they continue to eat insects and other small creatures onshore, but in offshore waters they prey almost entirely on small fish such as anchovies, sardines, and silverside minnows.

Behavior: Black Terns are among the most social of terns. When arriving on the breeding grounds, they perform group courtship flights high (up to 600 feet) in the air, ascending quickly with rapid, exaggerated wingbeats, then chasing each other in shallow swoops and dives with wings crooked, calling excitedly the whole time. Usually, these displays involve just a few to a dozen birds, but up to 300 birds may display together in courtship flights, which may last as long as 20 minutes. In some cases, Black Terns arrive on the breeding grounds already paired. Once they are paired, Black Terns do not display high in the air as often, but they begin courtship feeding. In this display, males fly slowly with a fish or insect in the bill, the female following. When the female perches, the male places the prey in her bill. On the ground, males court females by raising the neck and bill and dropping the wings, then dropping the head and raising the tail. The female sometimes mirrors these postures in return. Once the female lays eggs, most courtship ceases. After eggs hatch, some pairs begin their displays again. Black Terns appear to be monogamous in their mating system. Both males and females chase other Black Terns away from the nest vicinity, but conflicts are less common than in tern species that nest in dense colonies. Black Terns nest in loose groups, usually a few dozen pairs spaced about 30 feet apart, but some nests can be as close as 3 feet apart. Juveniles migrate at night with their parents toward wintering areas and remain in those areas during their first year of life, rather than returning northward in their first spring. During the nonbreeding season, Black Terns are highly social, occurring in flocks of a few to many thousands. They often roost along shorelines with other seabirds, especially other terns. They readily rest on pieces of flotsam and jetsam (and sometimes on the backs of resting sea turtles) at sea, but they rarely sit on the water's surface.

Conservation: According to the

Color Pattern: None

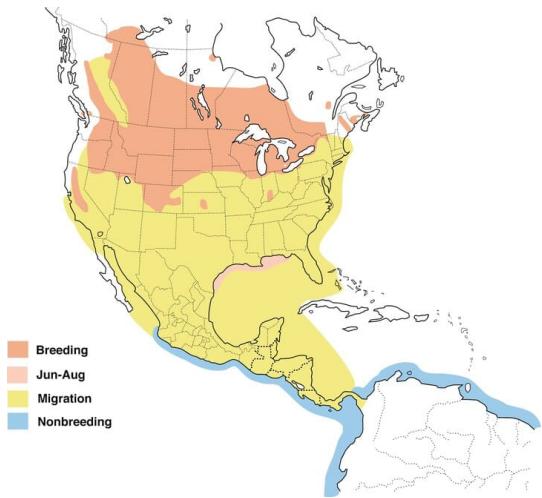
Fun Facts

-> The Black Tern and two Old World species, the White-winged Tern and Whiskered Tern, are known as "marsh terns" for their habit of breeding in freshwater marshes. All three are in the genus

-> The Black Tern is very social. It breeds in loose colonies and usually forages, roosts, and migrates in flocks of a few to more than 100 birds, occasionally up to tens of thousands.

-> The oldest recorded Black Tern was at least 11 years, 3 months old. It had been banded in Wisconsin and was refound in Louisiana.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Small tern with fairly broad wings; flies with light, buoyant wingbeats. Breeding adults have very distinctive pattern of black head and body with dark gray wings.



Breeding adult

Small tern with slender bill and dark gray wings. Breeding adults have black head, breast, and belly.



Nonbreeding adult

Small tern with dark gray wings. Nonbreeding adults have a dark ear spot

on a mostly white head.



Molting adult

When molting, can show a messy, mottled pattern of black and white.



Juvenile

Juveniles have dark gray-brown back and wings with faint paler bars. Head and underparts are white with black skullcap and ear mark.



Nonbreeding adult

None



Molting adult

Small tern with dark gray wings. Molting birds can be a mixture of black and white on the head and underparts.



Juvenile

Small tern with shallow fork in tail. Juveniles have brownish tinges to back feathers, marked with pale barring. Note black skullcap and ear mark.



Habitat

Breeds in inland freshwater marshes; migrates cross-country and over open ocean to wintering grounds. During migration may be found in flocks with other terns.

Black Skimmer

Bird Characteristics

Scientific Name: *Rynchops niger*

Order: Charadriiformes

Family Name: Laridae

Conservation Status: Declining

Length: 15.8-19.7 in (40-50 cm)

Weight: 9.3-12.9 oz (265-365 g)

Wingspan: 42.9-45.3 in (109-115 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1 brood

Egg Length: 1.5-2.0 in (3.9-5.2 cm)

Egg Width: 1.2-1.4 in (3-3.5 cm)

Incubation Period: 21-25 days

Egg Description: Pale cream, white, greenish, or pinkish spotted with dark brown to black.

Condition at Hatching: Almost helpless, covered in tan down. Chicks can soon stand and move around, but parents must feed them for 3-4 weeks after hatching

Nest Placement: Black Skimmers lay eggs directly on sandy, shelly, or stony ground, usually on islands or remote beaches that have at least a little vegetation. Some nest in the higher parts of saltmarshes. They often nest near or among tern colonies, which (despite numerous squabbles) can provide benefits, as terns aggressively attack gulls and mammals that prey on eggs and chicks.

Nest Description: Mates take turns scraping, using an exaggerated posture (with the neck, head, bill, and tail raised) to kick sand behind them with alternating foot strokes. They then

rotate in their scrape to create a saucer-shaped depression, similar to the resting scrapes they use throughout the year. The depression takes only a few minutes to create, and the birds may make several scrapes before eggs are laid. Males do more scraping and make larger scrapes than females. The average scrape is 10 inches in diameter and 1 inch deep.

Bird Information

Habitat: Black Skimmers spend their entire lives in coastal areas, usually around sandy beaches and islands, although a few colonies can be found in inland locations with very large lakes, particularly in Florida and California. Nesting birds use open sandy areas, gravel or shell bars with sparse vegetation, or broad mats of wrack (dead vegetation) in saltmarsh. Foraging birds frequent places that concentrate prey: tidal waters of bays, estuaries, lagoons, creeks, rivers, ditches, and saltmarsh pools. Because so many coastal habitats have been developed or otherwise modified, skimmers have become limited in their distribution over most of their range.

Food: Black Skimmers forage mostly when winds are light and waters calm. They take many species of fish, mostly under 5 inches long, and a few crustaceans, such as shrimp or blue crab (when the crabs are molting). Documented prey items include killifish species (such as mummichog), smelt, flounder, menhaden, bay anchovy, spot, bluefish, silversides, herring, pipefish, sea trout, mullet, snapper, Spanish mackerel, and sharksucker. In tidal areas, they often forage in sync with the tides, commonly with bouts just after low tide and just before high tide, but there are many variations.

Behavior: To the birder, mention of “Black Skimmer” brings to mind a bird in elegant repose or effortless flight. Watching them at a nesting colony, from a respectful distance, will uncover additional behaviors. Resting skimmers often put their entire bodies, including head and bill, on the sand, probably to keep cool and to give their neck muscles a break from supporting their large bills. When napping in a flock, skimmers tend to remain standing, and the birds on the outer edges of the flock tuck their bills into the wing on the outer side, keeping an eye out for danger. During the nesting season, skimmers are quite active and are surprisingly agile when walking. Their various displays, like those of terns, can be entertaining to watch. Newly formed pairs sometimes fly in tandem, fluttering up together and flying around the nesting area. They also parade through the area together with necks outstretched and bills held up. Males are protective of their small territories (around the nest) and guard females against interlopers, often using warning displays such as tossing the head upward, standing upright, or facing downward with the tail cocked upward. Sometimes, skimmers open the bill, exposing a reddish gape. Some of these warnings are accompanied by soft, barking calls. Courting males usually present a fish to the mate; copulation is accompanied by a wing-flagging display on the part of the male.

Conservation: Black Skimmers are in decline. The

Color Pattern: None

Fun Facts

- > The distinctive Black Skimmer has many folk names in North America, where it has been called scissor-bill, shearwater, seadog, flood gull, stormgull, razorbill, and cutwater.
- > Although the Black Skimmer is active throughout the day, it is largely crepuscular (active in the dawn and dusk) and even nocturnal. Its use of touch to catch fish lets it be successful in low light or darkness.
- > Possibly the best description of the Black Skimmer's bounding, head-down foraging style came from the great seabird biologist R. C. Murphy in 1936. He said they look like "unworldly... aerial beagles hot on the scent of aerial rabbits."
- > At hatching, the upper and lower bill of a young Black Skimmer are equal in length, but by fledging at 4 weeks, the lower mandible is already nearly a half-inch longer than the upper.
- > The oldest recorded Black Skimmer was at least 23 years, 1 month old when it was identified by its band in California in 2013. It had been banded in the same state in 1990.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Long-winged coastal waterbird. Black above and white below with a bicolored bill. Often flaps with its wings held above its body.



Breeding adult

The upper bill is shorter than the lower bill. Note the long body and short red-orange legs.



Immature

Immature birds look similar to adults but have more white on the neck and brown on back and wings.



Juvenile

Often rests with its body flat on the ground and neck extended.



Nonbreeding adult

None



Juvenile

A buoyant and graceful flier typically seen low over the water. Note dark wingtips and white tail with a black line down the center.



Breeding adult

Flies low with its lower bill slicing through the water. When the bill touches a fish, the upper bill snaps down instantly to catch it.



Nonbreeding adult

None



Breeding adult

None



Flock

Found on open sandy beaches, on gravel or shell bars with sparse vegetation, or on mats of sea wrack (tide-stranded debris) in saltmarshes.

Often forms large flocks outside the breeding season.

Common Murre

Bird Characteristics

Scientific Name: *Uria aalge*

Order: Charadriiformes

Family Name: Alcidae

Conservation Status: Low Concern

Length: 15.0-16.9 in (38-43 cm)

Weight: 28.2-39.7 oz (800-1125 g)

Wingspan: 25.2-27.9 in (64-71 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 1 egg

Number of Broods: 1 brood

Incubation Period: 26-39 days

Egg Description: Very pointed at one end. Color variable, ranging from white to tan without markings, to dark green or turquoise with extensive black spots and scrawls.

Condition at Hatching: Covered in down, able to stand within one day.

Nest Placement: Murres lay their single egg directly on a cliff ledge or similar site above the ocean, sometimes in a hidden crevice or under a boulder.

Nest Description: Murres don't build a nest, but adults sometimes arrange small pebbles around the egg, and these become cemented by guano, which perhaps helps the egg to stay on the cliff.

Bird Information

Habitat: Common Murres nest on rocky cliffs and headlands at the edge of the ocean. During the breeding season, they forage at sea, normally over waters deeper than 100 feet and well

away from land, at places where warm and cool currents meet and concentrate their prey, mostly fish. They forage closer to shore for much of the nonbreeding season, often coming quite close to land. When not breeding, they remain on the ocean rather than coming ashore to rest or roost. Where their range overlaps with the Thick-billed Murre, that species tends to forage over deeper waters, farther from shore, than Common.

Food: Common Murres eat mostly fish, along with squid, octopus, and—especially in the nonbreeding season—small marine crustaceans such as krill and amphipods. In the Pacific, rockfish (genus

Behavior: Common Murres are monogamous and often stay partnered for several years consecutively. Before nesting, groups of murres near the nesting cliffs sometime display. A “water dance” display features birds chasing one another, pattering over the sea but not flying. In another display known as “joy flight,” they fly in circles, sometimes quite high in the air. Pairs begin, and maintain, their bonds with a greeting ritual, in which both birds spar with bills, bow, and preen one another, usually while calling.

Conservation: In North America, Pacific populations of Common Murre have declined in recent decades, but Atlantic populations appear to be increasing slightly in some areas.

Color Pattern: None

Fun Facts

-> Common Murres are skilled fishers, but how do they hold their slippery catch? They use their long, slender, sharp-edged tongues to press the slippery fish against sharp nubs ("denticles") in the roof of the mouth until they can swallow it.

-> In breeding plumage, most Common Murres have all-brown faces. But in the Atlantic, some populations include “bridled” individuals, which have a white eyering and a white line extending backward from the eyes. Bridled birds are more common farther north.

-> Common Murre eggs can be many different colors and have variable patterns of spots and blotches. All this variation may allow parents to recognize their own egg when they return to their crowded cliff ledges.

-> The shape of a murre egg is distinctive: narrow, almost pointed at one end, very broad and round at the other. If nudged accidentally, these eggs roll in a neat circle around the narrow end—making it less likely that they will roll off their cliff ledge.

-> The oldest recorded Common Murre was at least 34 years, 8 months old, when it was found in Newfoundland and Labrador, Canada, in 2016. It had been banded in 1981 in the same location.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Large black-and-white seabird with a long, thin bill. Breeding birds have an entirely black head.



Nonbreeding adult/immature

In water, looks rather ducklike with a long and slender body and bill. Nonbreeding birds have a white throat, chin, and cheek that wraps up behind the eye.



Breeding adult

None



Nonbreeding adult/immature
None



Nonbreeding adult/immature
None



Breeding adult
Stands upright like a penguin. "Bridled" form in the Atlantic region has a white eyering that extends across the side of its face.



Breeding adult and juvenile
None



Breeding adult
At sea often congregates in large rafts. Long-necked seabird with a long, thin bill. In good light appears dark brown and white.



Breeding adult
Large, black-and-white penguinlike seabird. Breeds in dense colonies on island cliff ledges, slopes, and rocky outcrops.

Tufted Puffin

Bird Characteristics

Scientific Name: *Fratercula cirrhata*

Order: Charadriiformes

Family Name: Alcidae

Conservation Status: Low Concern

Length: 14.2-15.8 in (36-40 cm)

Weight: 18.3-35.3 oz (520-1000 g)

Basic Description: Tufted Puffins dress up for breeding season with impressively long, pale yellow head plumes. Red-rimmed eyes and an immense red bill offset a bright white face. In the nonbreeding season, they have a gray face, only a hint of plumes, and an orange-and-gray bill. Most of the year they live at sea, from subtropical Pacific waters up to the Arctic Ocean. Young birds may live entirely on the open ocean, returning to land only when they are 3 years old to breed on the nesting cliff where they hatched.

Nesting Characteristics

Egg Description: Whitish

Condition at Hatching: Down-covered, eyes open, able to maintain body temperature independently after 1 week.

Bird Information

Habitat: Tufted Puffins nest in colonies on steep rocky islands, usually in grassy turf on slopes, sometimes in crevices among stones. They typically dig burrows into the soil for nesting. During the breeding season, Tufted Puffins forage relatively near the nest site, though some may commute over 60 miles to productive foraging grounds over the continental shelf. After nesting, adults disperse to sea, with most of the population wintering over very deep water far out in the central North Pacific. Juveniles also winter there, and because they do not breed until their third year, may remain on the open ocean for two more years.

Food: Tufted Puffins feed mostly on small fish during the breeding season (and feed fish to their young), which they capture during dives. They open their wings and “fly” underwater, diving as deep as 360 feet, deeper than other puffin species. Tufted Puffins consume their prey

underwater except during the breeding season, when they bring up to 20 fish at a time back to their chicks. During the breeding season in Alaska, Tufted Puffins often forage near islands and narrow passes between islands, where rip currents concentrate small fish and other prey. Here, they often forage in large numbers among thousands of other seabirds, including Thick-billed and Common Murres, Horned Puffins, Crested, Least, and Parakeet Auklets, Black-legged Kittiwakes, Glaucous-winged Gulls, and Northern Fulmars. After the nesting season, when they disperse to deep waters of the Pacific, they eat fish and many kinds of invertebrates, including squid, small crustaceans (euphausiids especially), pteropods, and bristleworms (polychaetes). Prey fish include northern smoothtongue, Pacific herring, Pacific saury, Pacific cod, sandlance, capelin, Alaska pollock, anchovy, prawnfish, sandfish, sablefish, Atka mackerel, greenling, and various salmon, sculpin, flatfish, and rockfish species. Because they also eat lanternfish during the nonbreeding season, ornithologists believe that Tufted Puffins must forage partly at night, when these vertically migrating, bioluminescent fish are near the sea surface. Typically, wintering birds at sea forage alone, but where prey species are abundant, dozens may be present in a small area.

Behavior: Tufted Puffins begin courtship as soon as they arrive back at the breeding sites. They nest in colonies but also as solitary pairs. Males pursue females in the water, the male raising and opening the bill, jerking the head, and even bringing the bill to rest on the back, showing off the brilliant orange-red mouth lining and the two pink fleshy ornaments at the mouth corners. A receptive female might invite more courtship by facing the male and “billing,” that is, rubbing the bill against the male’s bill quickly. On land, males bow to females and swing the bill side to side, nibble at the nape or feet of their mates, and also present them with nest material in their bills. They also make “landing displays,” in which they crouch after landing at the nest site, raise the wings above the back, parade with exaggerated steps, then lower the wings. These courtship displays continue at the nest site and through the breeding season, particularly when adults exchange places at the nest during “shift change.” When encountering an intruder of their own species at the nest site, both male and female drive away the bird with lowered body, erected tufts, open bill, and raised tail, and males may pursue rival males in the water, porpoising like a penguin for a kilometer or more. Like other alcids, Tufted Puffins perform circular flights above nesting areas, often in groups.

Conservation:

Color Pattern: Adults in breeding plumage are blackish, with a white mask, long yellow plumes that extend from eye to nape, and orange-and-yellow bill. Adults in nonbreeding plumage are paler sooty gray, and the bill becomes smaller with a grayish base, with only a trace of yellow remaining behind the eye. Immature similar to nonbreeding adult but with smaller, all-gray bill.

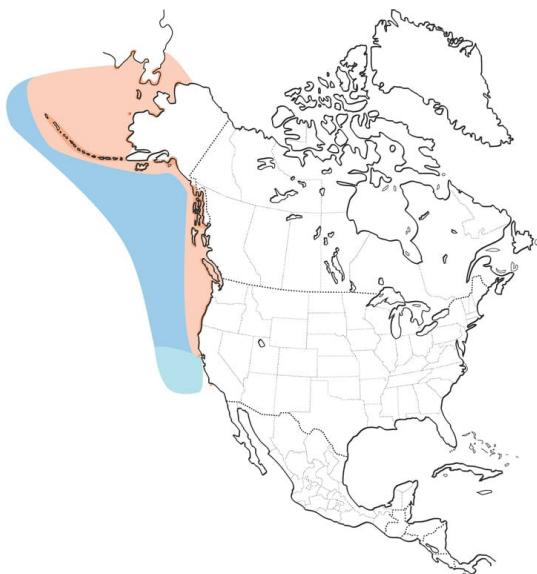
Fun Facts

- > The Tufted Puffin nests mostly in deep burrows that it digs into cliff edges and slopes. These burrows can be more than 1.5 meters (5 feet) deep.
- > The Tufted Puffin can capture and hold multiple small fish crosswise in its bill, routinely 5 to

20 fish at a time, for delivery to chicks at the nest. Adults eat their own food while still under water.

-> The oldest recorded Tufted Puffin was at least 6 years old when it was found in Alaska, the same state where it had been banded.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Stocky black seabird. Breeding birds have a white face, long yellow plumes at the back of the head, and a large triangular red and orangish bill.



Breeding adult

Large mostly black seabird with an unmistakable red bill. Breeding birds have yellow head plumes.



Nonbreeding adult/immature

Nonbreeding birds are dark overall, with a gray face, reduced yellow plumes, and a smaller orange and gray bill.



Breeding adult

In flight, entirely black below including underwings.



Nonbreeding adult/immature

Nonbreeding birds have smaller bills, lacking the yellow plates visible during the breeding season. Appears entirely dark at a distance.

Mourning Dove

Bird Characteristics

Scientific Name: *Zenaida macroura*

Order: Columbiformes

Family Name: Columbidae

Conservation Status: Low Concern

Length: 9.1-13.4 in (23-34 cm)

Weight: 3.4-6.0 oz (96-170 g)

Wingspan: 17.7 in (45 cm)

Basic Description: A graceful, slender-tailed, small-headed dove that's common across the continent. Mourning Doves perch on telephone wires and forage for seeds on the ground; their flight is fast and bullet straight. Their soft, drawn-out calls sound like laments. When taking off, their wings make a sharp whistling or whinnying. Mourning Doves are the most frequently hunted species in North America.

Nesting Characteristics

Clutch Size: 2 eggs

Number of Broods: 1-6 broods

Egg Length: 1.0-1.2 in (2.6-3 cm)

Egg Width: 0.8-0.9 in (2.1-2.3 cm)

Incubation Period: 14 days

Nestling Period: 12-15 days

Egg Description: Unmarked, white.

Condition at Hatching: Helpless, eyes closed, sparsely covered in cream-colored down, unable to hold up head, dependent on adults for warmth.

Nest Placement: Typically nests amid dense foliage on the branch of an evergreen, orchard tree, mesquite, cottonwood, or vine. Also quite commonly nests on the ground, particularly in

the West. Unbothered by nesting around humans, Mourning Doves may even nest on gutters, eaves, or abandoned equipment.

Nest Description: A flimsy assembly of pine needles, twigs, and grass stems, unlined and with little insulation for the young. Over 2 to 4 days, the male carries twigs to the female, passing them to her while standing on her back; the female weaves them into a nest about 8 inches across. Mourning Doves sometimes reuse their own or other species' nests.

Bird Information

Habitat: Primarily a bird of open country, scattered trees, and woodland edges, but large numbers roost in woodlots during winter. Feeds on ground in grasslands, agricultural fields, backyards, and roadsides.

Food: Seeds make up 99 percent of a Mourning Dove's diet, including cultivated grains and even peanuts, as well as wild grasses, weeds, herbs, and occasionally berries. They sometimes eat snails. Mourning Doves eat roughly 12 to 20 percent of their body weight per day, or 71 calories on average.

Behavior: Mourning Doves feed on the ground and in the open. They peck or push aside ground litter, but don't scratch at the ground. Males have favorite "cooing perches" they defend from other males. Members of a pair preen each other with gentle nibbles around the neck as a pair-bonding ritual. Eventually, the pair will progress to grasping beaks and bobbing their heads up and down in unison.

Conservation: Mourning Doves are common across the continent and generally have prospered as people settled the landscape, however populations declined by about 15% between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 120 million with 81% spending some part of the year in the U.S., 19% in Mexico, and 5% in Canada. The species rates a 5 out of 20 on the Continental Concern Score. Mourning Dove is not on the

Color Pattern: Mourning Doves often match their open-country surroundings. They're delicate brown to buffy-tan overall, with black spots on the wings and black-bordered white tips to the tail feathers.

Fun Facts

-> During the breeding season, you might see three Mourning Doves flying in tight formation, one after another. This is a form of social display. Typically the bird in the lead is the male of a mated pair. The second bird is an unmated male chasing his rival from the area where he hopes to nest. The third is the female of the mated pair, which seems to go along for the ride.

-> Mourning Doves tend to feed busily on the ground, swallowing seeds and storing them in

an enlargement of the esophagus called the crop. Once they've filled it (the record is 17,200 bluegrass seeds in a single crop!), they can fly to a safe perch to digest the meal.

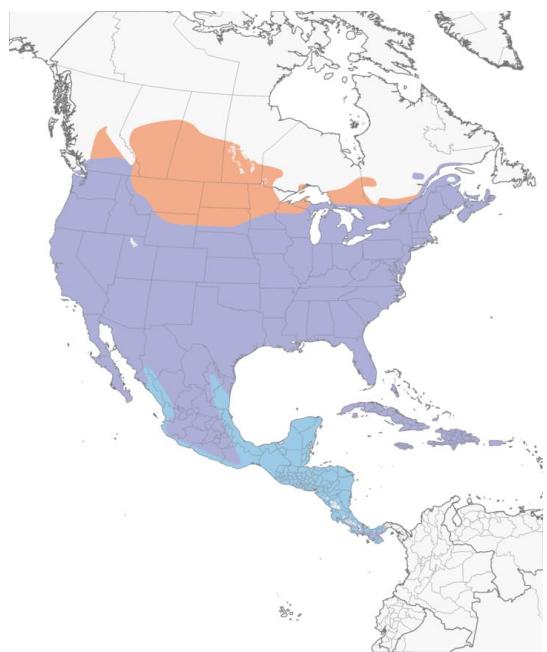
-> Mourning Doves eat roughly 12 to 20 percent of their body weight per day, or 71 calories on average.

-> Perhaps one reason why Mourning Doves survive in the desert: they can drink brackish spring water (up to almost half the salinity of sea water) without becoming dehydrated the way humans would.

-> The Mourning Dove is the most widespread and abundant game bird in North America. Every year hunters harvest more than 20 million, but the Mourning Dove remains one of our most abundant birds with a U.S. population estimated at 350 million.

-> The oldest known Mourning Dove was a male, and at least 30 years, 4 months old when he was shot in Florida in 1998. He had been banded in Georgia in 1968.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Gray above with large black spots on the wing coverts and pale peach-colored below, with a long, thin tail. Note the thin, black bill and pinkish legs.



Adult

In flight shows a long, fan-shaped tail with large white tips. Its wings make a distinctive high-pitched whistle in flight.



Juvenile

Juveniles look similar to adults, but with small white tips to most of the upperparts feathers, and white markings in the face.



Adult

Shows a black mark on the side of the neck that can be hidden, depending on the angle.



Adult

Constructs small, flimsy nests in a variety of trees and bushes.



Adult

Often occurs in flocks, sometimes quite large, and perches prominently in a variety of habitats.

Common Ground Dove

Bird Characteristics

Scientific Name: *Columbina passerina*

Order: Columbiformes

Family Name: Columbidae

Conservation Status: Low Concern

Length: 5.9-7.1 in (15-18 cm)

Weight: 1.0-1.4 oz (28-40 g)

Basic Description: None

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1-4 broods

Egg Length: 0.8-0.9 in (2-2.4 cm)

Egg Width: 0.6-0.7 in (1.5-1.7 cm)

Incubation Period: 12-14 days

Nestling Period: 11-14 days

Egg Description: Uniformly white and smooth.

Condition at Hatching: Eyes closed and body covered with sparse gray down.

Nest Placement: Common Ground-Doves typically build nests on the ground in fields, and they may also use above-ground sites including bushes, low horizontal tree branches, stumps, fence posts, vines, cornstalks, palm fronds, mangroves, mesquite thickets, and prickly pear cacti.

Nest Description: Ground-doves invest minimal time in building their nests, but both sexes share the labor. When nesting on the ground they dig a slight depression in the earth and line it with a few grasses, weeds, rootlets, palm fibers, or pine needles. For above-ground nests

they build flimsy structures of twigs or pine needles lined with rootlets and grasses. Each nest is up to 3 inches across but less than half an inch deep, meaning that the eggs are usually visible above the rim of the nest.

Bird Information

Habitat: Common Ground-Doves live in arid, open woodlands in the early stages of forest development, including pine woods, hammocks, lake shores, forest edges, coastal dunes, mesquite flats, river bottom woodlands, deserts, desert scrublands, oak scrublands, and savannas. They are also found in human landscapes, especially irrigated farm fields and residential neighborhoods.

Food: Common Ground-Doves make their living by gleaning small seeds from wild grasses and weeds. They are also common visitors to bird feeders. They may specialize on certain seeds during the summer, when food is abundant, but eat a variety of seeds during winter. Ground-doves also feed on small berries and insects. In spring and summer they may eat snail shells, possibly to replenish the calcium devoted to eggs and crop-milk during nesting.

Behavior: During the day Common Ground-Doves spend time on the ground searching for seeds and roosting. They may also roost in trees or shrubs at any hour of the day or night. They nod their heads as they walk, often holding their tails slightly elevated, and they usually make short, low, and direct flights. When startled they can quickly burst into nearby cover, but they are not a very anxious bird—allowing humans to get very close without appearing bothered. Common Ground-Doves gather in flocks of their own kind and with other dove species, particularly Inca Doves where their ranges overlap in Texas and the Southwest. When males compete for food or mates they may make sharp cooing calls and raise one or both wings, revealing chestnut wing-patches. A courting male follows the female and keeps doing this, sometimes flying after her to stay near. Eventually the female accepts regurgitated food from the male, and the pair bond is cemented; pairs stay together for several years. Before mating, the male bows to the female with puffed feathers, flicking his wings and giving a guttural call.

Conservation: Common Ground-Doves are widespread and common throughout their range, and their numbers were stable between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 13 million, with 18% living in the U.S., and 21% in Mexico. They rate a 9 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Common Ground-Doves are sandy brown overall, with large, dark spots on the wing coverts. In flight the wings show rich rufous patches. Males have a pinkish wash on the head, neck, and chest, and bluish crowns; females are duller. Both sexes have fine, dark scaling on the neck and chest, and pinkish-red bills with a dark tip.

Fun Facts

-> It's estimated that a Common Ground-Dove has to eat more than 2,500 seeds every day to meet its energetic demands. It can store hundreds of seeds in its two-lobed crop, an enlarged pocket of the esophagus.

-> Ground-doves may breed opportunistically after rainfall or fire to take advantage of the extra abundance of seeds. Both parents use a secretion from the esophagus, known as crop milk, to feed nestlings. Since they do not have to rely on specific food items for their chicks, ground-doves can have a long breeding season with multiple broods.

-> Like other doves and pigeons, Common Ground-Doves can suck up and swallow water without raising their heads.

-> The Common Ground-Dove is about the same size as a Song Sparrow, making it one of the smallest doves in North America. Its diminutive size is reflected in both the genus name

-> In the rural South, the Common Ground-Dove is sometimes called the "moaning dove" for its repetitive call or the "tobacco dove" for making its home near farm fields.

-> In flight ground-doves make a whirring sound, probably produced by a notch in the seventh primary feather on each wing.

-> Because it nests and feeds on the ground, the Common Ground-Dove lives in constant danger of predation from terrestrial animals like bobcats, opossums, raccoons, skunks, foxes, dogs, cats, and snakes. Birds hunt it too, including crows, jays, blackbirds, owls, hawks, falcons, and shrikes. The ground-dove's main weapon against predators is concealment: hiding in vegetation or simply blending into the dusty ground.

-> The oldest Common Ground-Dove on record was a female, and at least 7 years, 2 months old. She was banded in Texas and found in Mexico.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Tiny dove with a small head and short tail. Pinkish brown underparts with grayish head and scaled pattern on neck and breast. Often has pink or red base of bill.

None



Tiny dove with a small head and a short, square-tipped tail. Head is grayish; back and wings are brown with dark spots in the wings.

None



Tiny dove with a small head and a short bill. Extensive scaled pattern on neck and breast. Head is paler than rest of body.

None



Tiny dove with a short tail. In flight shows chestnut patches in the wing and dark sides of the tail with small white corners.

None



None

None



Degree of scaling varies among individuals.

None



Forages on bare ground, usually keeping close to cover, in grasslands, scrubby areas, desert washes, and open woodlands. Flushes with a whirring sound from the wings.

None

Rock Pigeon

Bird Characteristics

Scientific Name: *Columba livia*

Order: Columbiformes

Family Name: Columbidae

Conservation Status: Low Concern

Length: 11.8-14.2 in (30-36 cm)

Weight: 9.3-13.4 oz (265-380 g)

Wingspan: 19.7-26.4 in (50-67 cm)

Basic Description: A common sight in cities around the world, Rock Pigeons crowd streets and public squares, living on discarded food and offerings of birdseed. In addition to the typical blue-gray bird with two dark wingbars, you'll often see flocks with plain, spotted, pale, or rusty-red birds in them. Introduced to North America from Europe in the early 1600s, city pigeons nest on buildings and window ledges. In the countryside they also nest on barns and grain towers, under bridges, and on natural cliffs.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1-6 broods

Incubation Period: 18 days

Nestling Period: 25-32 days

Egg Description: White.

Condition at Hatching: Helpless, with sparse yellow or white down.

Nest Placement: Males typically choose the nest site, then sit in place and coo to attract a mate. The site is a nook, cranny, or ledge on either cliffs or manmade structures, often beneath eaves or an overhang. Pigeons may nest in stairwells, in rooms of abandoned buildings, or rain gutters.

Nest Description: During nest building, the female sits on the nest and makes a flimsy platform

of straw, stems, and sticks from materials brought to her one at a time by the male. Pigeons reuse their nests many times, and they don't carry away the feces of their nestlings the way many birds do. This means that over time the lightweight nest grows into a sturdy, potlike mound, sometimes incorporating unhatched eggs and mummies of dead nestlings.

Bird Information

Habitat: Urban areas, farmland, and rocky cliffs. May gather in large flocks in urban parks where people feed them.

Food: Seeds, fruits, rarely invertebrates. Pigeons also readily eat food intentionally or unintentionally left by people, including bread crumbs and littered food.

Behavior: Pigeons peck at food on the ground and drink by placing their bill in water, using it like a straw. When threatening a rival, pigeons may bow and coo, inflating their throat and walking in a circle. A male pigeon courts his mate by bowing, cooing, inflating his throat, and strutting in a circle around the female. The pair may preen one another and the male may grasp the female's bill, regurgitating food as a courtship gesture. When ready to mate, the female crouches and the males jumps on her back. The male brings one twig or stem at a time to the female to build a nest. He incubates the eggs from mid-morning to late afternoon; she takes her turn in late afternoon and overnight to mid-morning. Both parents brood the young and feed them by regurgitating a milky liquid secreted by the lining of the birds' crops.

Conservation: Rock Pigeons are abundant and widespread, so it may come as a surprise to learn that North American populations declined by 46% between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 120 million with 7% living in the U.S., 2% in Canada, and 2% in Mexico. The species rates a 6 out of 20 on the Continental Concern Score. Rock Pigeon is not on the

Color Pattern: Variable in color, but most birds are bluish gray with two black bands on the wing and a black tip to the tail. Most birds have iridescent throat feathers. Wing patterns may include two bars, dark spots, or can be plain. The tail is usually dark tipped.

Fun Facts

-> Pigeons can find their way home, even if released from a distant location blindfolded. They can navigate by sensing the earth's magnetic fields, and perhaps also by using sound and smell. They can also use cues based on the position of the sun.

-> Mesopotamian cuneiform tablets and Egyptian hieroglyphics suggest that pigeons were domesticated more than 5,000 years ago. The birds have such a long history with humans that it's impossible to tell where the species' original range was.

-> Rock Pigeons carried messages for the U.S. Army Signal Corps during World War I and II, saving lives and providing vital strategic information.

-> Charles Darwin kept pigeons for many years after returning from his five-year voyage on the

-> Pigeons come in many different shades and plumage patterns. People have named some of the common forms, so keep an eye out for these varieties: The typical “blue-bar” form (a bluish-gray bird with two black bands on the wing and a black tip to the tail); a “red bar” version (similarly marked, but with rusty red replacing bluish gray); “checker” (birds that have spots on the wings); “spread” (all black or all gray); “pied” (birds of any color that are splotched with white); and mostly red or mostly white forms.

-> One domestic homing pigeon, a “retired” U.S. Army Signal Corps bird named Levi, lived to be 31 years old. Feral Rock Pigeons have shorter life expectancies, averaging only 2.4 years. However, a Kansas bird was 6 years, 2 weeks old when it was recaptured and rereleased.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Plump bird with small head and straight, thin bill. Plumage is variable, but most common form has gray back, 2 black bars in the wing, and blue-gray head.

None



None

None



None

None



Plump bird with short legs and small head. Plumage is variable; some birds are dark gray with green-purple iridescence on the neck. Tail usually shows a dark band at the tip.

None



None

None



Occasional variants are pale or rusty colored; often found in flocks with pigeons in standard gray plumage.

None



Struts on the ground with head-bobbing motion to pick at seeds and

handouts.

None



Plumage is variable; some individuals can be nearly all white.

None



None

None



Gathers in large flocks in urban areas and on farms. In flight, most individuals have pale underwings and a dark band at the tail tip.

None

Black-billed Cuckoo

Bird Characteristics

Scientific Name: *Coccyzus erythrophthalmus*

Order: Cuculiformes

Family Name: Cuculidae

Conservation Status: Declining

Length: 11.0-12.2 in (28-31 cm)

Weight: 1.4-2.3 oz (40-65 g)

Wingspan: 13.4-15.8 in (34-40 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.3 in (2.4-3.3 cm)

Egg Width: 0.7-0.9 in (1.8-2.4 cm)

Incubation Period: 10-11 days

Nestling Period: 6-7 days

Egg Description: Greenish-blue, unmarked.

Condition at Hatching: Helpless, but alert and active within minutes of hatching. Shiny black skin, no down.

Nest Placement: Black-billed Cuckoos hide their nests among leaves or tangles in deciduous trees, shrubs, or brambles (occasionally evergreen trees such as hemlock). Nests are usually less than 7 feet above the ground, but can be up to 50 feet high.

Nest Description: Both adults help build the nest, but the female often lays eggs in the nest before it's completed. The nest is flimsy—a shallow cup made of twigs and grasses and lined

with dead or green leaves, pine needles, stalks, plant fibers, rootlets, mosses, and spiderwebs. The finished nest is about 6 inches across and less than an inch deep.

Bird Information

Habitat: Black-billed Cuckoos are birds of woodlands and thickets, including aspen, poplar, birch, sugar maple, hickory, hawthorn, and willow. They tend to occur more frequently in larger and denser woodlands than the Yellow-billed Cuckoo. On their wintering grounds, they live in forest, woodlands, and scrub.

Food: Black-billed Cuckoos eat large insects such as caterpillars, katydids, cicadas, and grasshoppers. They seem to have a particular appetite for caterpillars such as fall webworms, tent caterpillars, and gypsy moths. Individuals have often been found with more than 100 caterpillars in their stomach at once. On their wintering grounds they also eat fruit and seeds.

Behavior: Black-billed Cuckoos move slyly through thickets and often don't budge at all. When they do fly they have a graceful flight, flying on long and pointed wings. They catch prey by sitting motionless for long periods, then running or hopping out to grab caterpillars. They often shake and hammer caterpillars against a branch to remove their spines before swallowing, but sometimes they swallow them spines and all. They tend to forage lower to the ground than Yellow-billed Cuckoos, occasionally even foraging on the ground. Males court females with food prior to mating and form monogamous bonds for the breeding season. Black-billed Cuckoos occasionally lay eggs in nests of other birds, though they do this far less often than the Common Cuckoo (of Europe) or the Brown-headed Cowbird. Among their hosts are other Black-billed Cuckoos, Yellow-billed Cuckoos, Chipping Sparrows, American Robins, Gray Catbirds, Wood Thrushes, and six other species. Males and females incubate the eggs continuously until they hatch. Young leave the nest at 6–7 days old, about two weeks before they can fly.

Conservation: Black-billed Cuckoos are uncommon and their populations declined by 68% since 1970, according to

Color Pattern: None

Fun Facts

-> Cuckoos eat lots of spiny caterpillars, and those spines end up sticking to the lining of their stomach. To get rid of the spines, they periodically shed the stomach lining, coughing it up in one giant pellet, similar to an owl.

-> Both Black-billed and Yellow-billed Cuckoos are sometimes called "rain crows" because, according to folklore, they tend to call just before rain starts to fall.

-> The Common Cuckoo of the Old World is famous for laying its eggs in other birds' nests. Black-billed Cuckoos occasionally do this, but more often they build their own nest and raise

their chicks themselves, as most birds do.

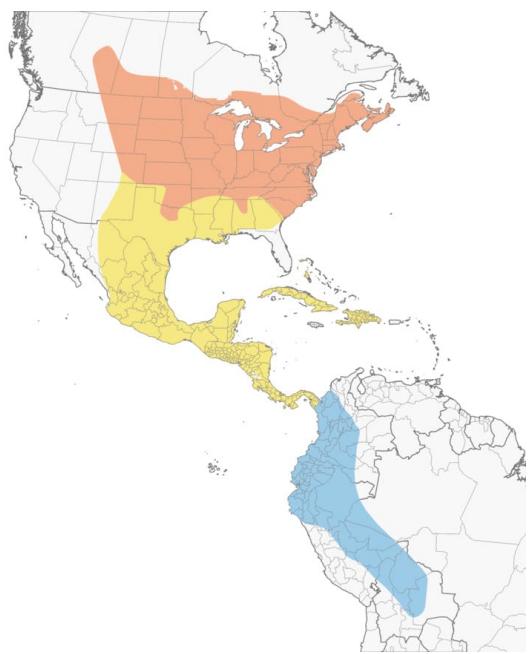
-> The time from egg laying to fledging is 17 days and is among the shortest for any bird. At 6 days old, nestlings look like little porcupines with long pointed feather sheaths (a thin tube of keratin that surrounds and protects a developing feather). When they are ready to leave the nest their feathers pop out of the sheaths like popcorn, turning the spiky nestling into a fully feathered bird.

-> When young birds are threatened they strike a pose similar to an American Bittern with their neck outstretched and bill pointed skywards.

-> Cuckoos have zygodactyl feet—2 toes point forward and 2 toes point backward. Owls, Osprey, and woodpeckers also have zygodactyl feet.

-> The oldest known Black-billed Cuckoo was at least 4 years old; it was banded in Ontario in 1965 and recovered in Connecticut in 1969.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Slender, long-tailed bird with a red ring around the eye and a long black bill. From below, note small white tips on the tail feathers.



Adult

Slender, long-tailed bird with a hunchbacked look. Brownish above with little rusty color in the wings. Note black bill and red ring around the eye.



Adult

Slender and long-tailed with narrow white tips on the tail feathers.



Adult

Slender, long-tailed bird with a hunchbacked look. Brownish above with little rusty color in the wings. Note black bill.



Adult

Secretive birds. Found in woodlands and thickets.

Greater Roadrunner

Bird Characteristics

Scientific Name: *Geococcyx californianus*

Order: Cuculiformes

Family Name: Cuculidae

Conservation Status: Low Concern

Length: 20.5-21.3 in (52-54 cm)

Weight: 7.8-19.0 oz (221-538 g)

Wingspan: 19.3 in (49 cm)

Basic Description: A bird born to run, the Greater Roadrunner can outrace a human, kill a rattlesnake, and thrive in the harsh landscapes of the Desert Southwest. Roadrunners reach two feet from sturdy bill to white tail tip, with a bushy blue-black crest and mottled plumage that blends well with dusty shrubs. As they run, they hold their lean frames nearly parallel to the ground and rudder with their long tails. They have recently extended their range eastward into Missouri and Louisiana.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-2 broods

Egg Length: 1.4-1.8 in (3.5-4.6 cm)

Egg Width: 1.1-1.3 in (2.8-3.3 cm)

Incubation Period: 19-20 days

Egg Description: White covered with a chalky yellow film, sometimes stained with brown or gray.

Condition at Hatching: Eyes closed but chick strong and active, with black skin and white down along the feather tracts.

Nest Placement: The pair chooses a nest site 3–10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree. The shaded, well-concealed

nest is often located next to a path or streambed that the Greater Roadrunners use when carrying nest-building material and food for nestlings.

Nest Description: Male Greater Roadrunners bring twigs to the female, which she fashions into a compact platform with a nest cup about 4 inches deep. A male that pauses for too long in his stick-gathering may get reminded with a whining call from his partner, prompting him to get back to work. The finished nest can reach over 17 inches in diameter and 8 inches high, lined with leaves, grasses, feathers, smaller sticks, snakeskin, and flakes of cattle and horse manure. The parents may continue to work on the nest during incubation and build up the sides of the nest as the chicks grow. Pairs sometimes reuse a nest from a previous year.

Bird Information

Habitat: Greater Roadrunners occur throughout the Southwest and into northern California in semi-open, scrubby habitat from below sea level to nearly 10,000 feet. Habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands and canyons. At higher elevations roadrunners live in pinyon-juniper woodlands and cholla grasslands. Greater Roadrunners have expanded their range into southwest Missouri, western Arkansas, eastern Oklahoma, and Louisiana, where they occupy less typical habitat that includes red juniper landscapes, scrubby woods, loblolly pine forests and upland hardwood stands. Roadrunners avoid heavily forested and densely populated areas, but can tolerate sparser suburban development and open farmland.

Food: Greater Roadrunners eat mostly animals, including almost anything they can catch: small mammals, reptiles, frogs, toads, insects, centipedes, scorpions, and birds. Roadrunners also eat carrion and prey on bird eggs and chicks. They kill rattlesnakes by pecking them repeatedly in the head. They slam large prey, such as rodents and lizards, against a rock or the ground multiple times to break down the bones and elongate the victim, making it easier to swallow. These opportunistic predators have also been known to grab birds from backyard feeders or nest boxes. In winter, fruit, seeds, and other plant material make up 10 percent of the roadrunner's diet.

Behavior: True to its name, the Greater Roadrunner races along roads, streambeds, and well-worn paths, defending its large territory and chasing lizards, rodents, and insects. While on the move they startle and flush a meal by flashing the white spots on their open wings. Roadrunners can also jump straight up to snag insects, bats, and even hummingbirds in flight. Although agile on the ground, roadrunners don't fly well. A threat may trigger a short, low burst of flight to seek a hiding place; otherwise, flying is limited to gliding from a nest or perch to the ground, or between perches. In the morning, roadrunners often "sunbathe" to warm up after a cold night in the desert: with its back to the sun, the bird raises the feathers across its back and wings to expose its heat-absorbent black skin. In winter, birds may sunbathe several times a day. Male roadrunners perch atop fence posts and rocks, calling out with a mournful

Conservation: Greater Roadrunners are numerous and their breeding populations are stable, according to the North American Breeding Bird Survey. Partners in Flight estimates the global

breeding population at 1.1 million, with 62% occurring in the U.S. and the other 38% in Mexico. The species rates a 9 out of 20 on the Continental Concern Score and are not on the not on the

Color Pattern: They are tan or brown with extensive blackish streaking on the upperparts and chest. The crown is black with small, pale spots, and they have a patch of bare, blue skin behind the eye. The wings are dark with white highlights.

Fun Facts

-> For a generation of Americans, the familiar “beep, beep” of Warner Brothers’ cartoon Roadrunner was the background sound of Saturday mornings. Despite the cartoon character’s perennial victories over Wile E. Coyote, real-life coyotes present a real danger. The mammals can reach a top speed of 43 miles an hour—more than twice as fast as roadrunners.

-> Roadrunners have evolved a range of adaptations to deal with the extremes of desert living. Like seabirds, they secrete a solution of highly concentrated salt through a gland just in front of each eye, which uses less water than excreting it via their kidneys and urinary tract. Moisture-rich prey including mammals and reptiles supply them otherwise-scarce water in their diet. Both chicks and adults flutter the unfeathered area beneath the chin (gular fluttering) to dissipate heat.

-> Greater Roadrunners eat poisonous prey, including venomous lizards and scorpions, with no ill effect, although they’re careful to swallow horned lizards head-first with the horns pointed away from vital organs. Roadrunners can also kill and eat rattlesnakes, often in tandem with another roadrunner: as one distracts the snake by jumping and flapping, the other sneaks up and pins its head, then bashes the snake against a rock. If it’s too long to swallow all at once, a roadrunner will walk around with a length of snake still protruding from its bill, swallowing it a little at a time as the snake digests.

-> Based on banding records, the oldest roadrunner was at least 7 years old.

-> Roadrunners hold a special place in Native American and Mexican legends and belief systems. The birds were revered for their courage, strength, speed, and endurance. The roadrunner’s distinctive X-shaped footprint—with two toes pointing forward and two backward—are used as sacred symbols by Pueblo tribes to ward off evil. The X shape disguises the direction the bird is heading, and is thought to prevent evil spirits from following.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Distinctive shape, with long neck and legs, and a very long tail. Mostly brown with bold streaks over most of the body, and a lighter buffy belly. Distinct crest and long, heavy bill.



Adult

During the breeding season can show bright blue and red facial skin.



Adult

Prefers to run on the ground rather than flying. Calls with a nasal "meep meep" when running away from danger.



Adult

Large with a very long tail and a slightly crested head. Back and underparts are heavily streaked.



Adult

When flying shows broad, rounded wings with glossy dark feathers, and usually spreads the long tail.



Adult

Eats a variety of prey, including lizards and snakes.



Adult

In cold weather will sometimes expose black feathers and skin on the lower back.



Adult

Will sing or scan for danger from exposed perches.



Adult

Typically occurs in dry, fairly open to scrubby habitats.

Barn Owl

Bird Characteristics

Scientific Name: *Tyto alba*

Order: Strigiformes

Family Name: Tytonidae

Conservation Status: Low Concern

Length: 12.6-15.8 in (32-40 cm)

Weight: 14.1-24.7 oz (400-700 g)

Wingspan: 39.4-49.2 in (100-125 cm)

Basic Description: Ghostly pale and normally strictly nocturnal, Barn Owls are silent predators of the night world. Lanky, with a whitish face, chest, and belly, and buffy upperparts, this owl roosts in hidden, quiet places during the day. By night, they hunt on buoyant wingbeats in open fields and meadows. You can find them by listening for their eerie, raspy calls, quite unlike the hoots of other owls. Despite a worldwide distribution, Barn Owls are declining in parts of their range due to habitat loss.

Nesting Characteristics

Clutch Size: 2-18 eggs

Number of Broods: 1-3 broods

Egg Length: 1.5-1.7 in (3.9-4.4 cm)

Egg Width: 1.2-1.3 in (3.1-3.4 cm)

Incubation Period: 29-34 days

Nestling Period: 50-55 days

Egg Description: Dull white, often dirtied by the nest.

Condition at Hatching: Helpless, covered in white down.

Nest Placement: Barn Owls put their nests in holes in trees, cliff ledges and crevices, caves, burrows in river banks, and in many kinds of human structures, including barn lofts, church

steeples, houses, nest boxes, haystacks, and even drive-in movie screens.

Nest Description: The female makes a simple nest of her own regurgitated pellets, shredded with her feet and arranged into a cup. Unlike most birds, owls may use their nest sites for roosting throughout the year. Nest sites are often reused from year to year, often by different owls.

Bird Information

Habitat: Barn Owls live in open habitats across most of the lower 48 United States and extend into a few parts of southern Canada (as well as in much of the rest of the world). These include grasslands, deserts, marshes, agricultural fields, strips of forest, woodlots, ranchlands, brushy fields, and suburbs and cities. They nest in tree cavities, caves, and in buildings (often barns but also including Yankee Stadium). In the Andes they occur as high as 13,000 feet elevation.

Food: Barn Owls eat mostly small mammals, particularly rats, mice, voles, lemmings, and other rodents; also shrews, bats, and rabbits. Most of the prey they eat are active at night, so squirrels and chipmunks are relatively safe from Barn Owls. They occasionally eat birds such as starlings, blackbirds, and meadowlarks. Nesting Barn Owls sometimes store dozens of prey items at the nest site while they are incubating to feed the young once they hatch.

Behavior: Barn Owls fly slowly over open fields at night or dusk with slow wingbeats and a looping, buoyant flight. They use their impressive hearing, aided by their satellite-dish-shaped faces, to locate mice and other rodents in the grass, often in complete darkness. Barn Owls are usually monogamous and mate for life, although there are some reports of males with more than one mate. Males attract their mates with several kinds of display flights, including a "moth flight" where he hovers in front of a female for several seconds, his feet dangling. He also displays potential nest sites by calling and flying in and out of the nest. After the pair forms, the male brings prey to the female (often more than she can consume), beginning about a month before she starts laying eggs. Barn Owls defend the area around their nests, but don't defend their hunting sites; more than one pair may hunt on the same fields.

Conservation: Barn Owls are difficult to count because they're nocturnal and secretive, so population sizes are hard to estimate. Owing in part to this difficulty, the North American Breeding Bird Survey could not detect a significant population change between 1966 and 2014, although it appears that their numbers have slightly increased in that time. Partners in Flight estimates a global breeding population of 2 million, with 7% living in the U.S. and 2% in Mexico. They rate a 9 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Barn Owls are pale overall with dark eyes. They have a mix of buff and gray on the head, back, and upperwings, and are white on the face, body, and underwings. When seen at night they can appear all white.

Fun Facts

-> Barn Owls swallow their prey whole—skin, bones, and all. About twice a day, they cough up pellets instead of passing all that material through their digestive tracts. The pellets make a great record of what the owls have eaten, and scientists study them to learn more about the owls and the ecosystems they live in.

-> Up to 46 different races of the Barn Owl have been described worldwide. The North American form is the largest, weighing more than twice as much as the smallest race from the Galapagos Islands.

-> Barn Owl females are somewhat showier than males. She has a more reddish and more heavily spotted chest. The spots may indicate the quality of the female. Heavily spotted females get fewer parasitic flies and may be more resistant to parasites and diseases. The spots may also stimulate the male to help more at the nest. In an experiment where some females' spots were removed, their mates fed their nestlings less often than for females whose spots were left alone.

-> The Barn Owl has excellent low-light vision, and can easily find prey at night by sight. But its ability to locate prey by sound alone is the best of any animal that has ever been tested. It can catch mice in complete darkness in the lab, or hidden by vegetation or snow out in the real world.

-> The oldest known North American Barn Owl lived in Ohio and was at least 15 years, 5 months old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Medium-sized owl with a white heart-shaped face. Gray and cinnamon above and white below, although some have cinnamon colored and spotty chests.



Adult

White heart-shaped face and dark eyes are distinctive.



Adult (Galapagos)

None



Adult (Lesser Antilles)
None



Adult
Long, rounded wings and short tails contribute to their loping and buoyant flight style.



Adult
Gray and cinnamon above with a white heart-shaped face. Females are often darker than males, but there is much overlap.



Adult
Nests in holes in trees, cliff ledges and crevices, caves, burrows in river

banks, barn lofts, church steeples, houses, and nest boxes.



Adult

Nests and roosts in rock crevices, holes in trees, abandoned barns and other buildings, and dense trees.

Great Horned Owl

Bird Characteristics

Scientific Name: *Bubo virginianus*

Order: Strigiformes

Family Name: Strigidae

Conservation Status: Low Concern

Length: 18.1-24.8 in (46-63 cm)

Weight: 32.1-88.2 oz (910-2500 g)

Wingspan: 39.8-57.1 in (101-145 cm)

Basic Description: With its long, earlike tufts, intimidating yellow-eyed stare, and deep hooting voice, the Great Horned Owl is the quintessential owl of storybooks. This powerful predator can take down birds and mammals even larger than itself, but it also dines on daintier fare such as tiny scorpions, mice, and frogs. It's one of the most common owls in North America, equally at home in deserts, wetlands, forests, grasslands, backyards, cities, and almost any other semi-open habitat between the Arctic and the tropics.

Nesting Characteristics

Clutch Size: 1-4 eggs

Number of Broods: 1 brood

Egg Length: 2.1-2.2 in (5.3-5.6 cm)

Egg Width: 1.8-1.9 in (4.5-4.7 cm)

Incubation Period: 30-37 days

Nestling Period: 42 days

Egg Description: Dull white and nearly spherical, with a rough surface.

Condition at Hatching: Helpless, with closed eyes, pink skin, and white down on upperparts.

Nest Placement: Great Horned Owls typically nest in trees such as cottonwood, juniper, beech, pine, and others. They usually adopt a nest that was built by another species, but they

also use cavities in live trees, dead snags, deserted buildings, cliff ledges, and human-made platforms. In the Yukon they nest in white spruces with “witches’ brooms,” which are clumps of dense foliage caused by a fungus. They occasionally nest on the ground. Pairs may roost together near the future nest site for several months before laying eggs.

Nest Description: Nests often consist of sticks and vary widely in size, depending on which species originally built the nest (usually Red-tailed Hawks, other hawk species, crows, ravens, herons, or squirrels). Great Horned Owls may line the nest with shreds of bark, leaves, downy feathers plucked from their own breast, fur or feathers from prey, or trampled pellets. In some areas they add no lining at all. Nests deteriorate over the course of the breeding season, and are seldom reused in later years.

Bird Information

Habitat: Found all across North America up to the northern tree line, Great Horned Owls usually gravitate toward secondary-growth woodlands, swamps, orchards, and agricultural areas, but they are found in a wide variety of deciduous, coniferous or mixed forests. In some areas, such as the southern Appalachians, they prefer old-growth stands. Their home range usually includes some open habitat—such as fields, wetlands, pastures, or croplands—as well as forest. In deserts, they may use cliffs or juniper for nesting. Great Horned Owls are also fairly common in wooded parks, suburban area, and even cities.

Food: Great Horned Owls have the most diverse diet of all North American raptors. Their prey range in size from tiny rodents and scorpions to hares, skunks, geese, and raptors. They eat mostly mammals and birds—especially rabbits, hares, mice, and American Coots, but also many other species including voles, moles, shrews, rats, gophers, chipmunks, squirrels, woodchucks, marmots, prairie dogs, bats, skunks, house cats, porcupines, ducks, loons, mergansers, grebes, rails, owls, hawks, crows, ravens, doves, and starlings. They supplement their diet with reptiles, insects, fish, invertebrates, and sometimes carrion. Although they are usually nocturnal hunters, Great Horned Owls sometimes hunt in broad daylight. After spotting their prey from a perch, they pursue it on the wing over woodland edges, meadows, wetlands, open water, or other habitats. They may walk along the ground to stalk small prey around bushes or other obstacles.

Behavior: Great Horned Owls roost in trees, snags, thick brush, cavities, ledges, and human-made structures. They are active mostly during the night—especially at dusk and before dawn. When food supplies are low they may begin hunting in the evening and continue into the early morning; in winter they may hunt during daylight hours. Mated pairs are monogamous and defend their territories with vigorous hooting, especially in the winter before egg-laying and in the fall when their young leave the area. Great Horned Owls respond to intruders and other threats with bill-clapping, hisses, screams, and guttural noises, eventually spreading their wings and striking with their feet if the threat escalates. They may kill other members of their own species. Crows, ravens, songbirds, and raptors often harass Great Horned Owls with loud, incessant calls and by dive-bombing, chasing, and even pecking them. Unattended eggs and nestlings may fall prey to foxes, coyotes, raccoons, lynx, raptors, crows, and ravens. Both

members of a pair may stay within the territory outside of the breeding season, but they roost separately.

Conservation: Great Horned Owls are common and widespread throughout much of the Americas, however populations declined throughout their range by about 33% between 1966 and 2015, according to the North American Breeding Bird Survey. Canadian populations had even greater declines - over 2.5% per year during those years - resulting in a cumulative loss of 72%. Partners in Flight estimates the global breeding population at 6 million with about 45% of in the U.S., 14% in Canada, and 7% in Mexico. The species rates an 8 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Great Horned Owls are mottled gray-brown, with reddish brown faces and a neat white patch on the throat. Their overall color tone varies regionally from sooty to pale.

Fun Facts

-> Great Horned Owls are fierce predators that can take large prey, including raptors such as Ospreys, Peregrine Falcons, Prairie Falcons, and other owls. They also eat much smaller items such as rodents, frogs, and scorpions.

-> When clenched, a Great Horned Owl's strong talons require a force of 28 pounds to open. The owls use this deadly grip to sever the spine of large prey.

-> If you hear an agitated group of cawing American Crows, they may be mobbing a Great Horned Owl. Crows may gather from near and far and harass the owl for hours. The crows have good reason, because the Great Horned Owl is their most dangerous predator.

-> Even though the female Great Horned Owl is larger than her mate, the male has a larger voice box and a deeper voice. Pairs often call together, with audible differences in pitch.

-> Great Horned Owls are covered in extremely soft feathers that insulate them against the cold winter weather and help them fly very quietly in pursuit of prey. Their short, wide wings allow them to maneuver among the trees of the forest.

-> Great Horned Owls have large eyes, pupils that open widely in the dark, and retinas containing many rod cells for excellent night vision. Their eyes don't move in their sockets, but they can swivel their heads more than 180 degrees to look in any direction. They also have sensitive hearing, thanks in part to facial disc feathers that direct sound waves to their ears.

-> The oldest Great Horned Owl on record was at least 28 years old when it was found in Ohio in 2005.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Great Horned)

Large owl with large ear tufts and yellow eyes. The color of the facial disc varies regionally from gray to cinnamon.



Adult (Magellanic)

Birds in the highlands from Peru south to Tierra del Fuego are smaller with shorter ear tufts. They are also paler with closely spaced barring under the tail.



Adult (Great Horned)

A hefty bird that flies silently on broad wings.



Juvenile (Great Horned)

Juveniles are covered in fluffy down. The head is often downy white and contrasts with the darker facial disc and yellow eyes.



Adult (Great Horned)

Hefty, upright perching owl with noticeable ear tufts. Plumage coloration varies regionally. Eastern birds tend to have more cinnamon tones.



Adult (Magellanic)

Birds in the highlands from Peru south to Tierra del Fuego are smaller with shorter ear tufts. They are also paler with closely spaced barring under the tail.



Adult (Great Horned)

Uses nests built by other species, sometimes adding lining material of their own.



Juvenile (Great Horned)

Juveniles are covered in fluffy down. White down often retained on the head longer, which contrasts with the darker facial disc.



Adult (Great Horned)

Mottled brown above with bright yellow eyes, a cinnamon facial disc, and a white throat.



Adult

Found in woodlands, orchards, and agricultural areas. Sometimes nest in abandoned buildings.

Snowy Owl

Bird Characteristics

Scientific Name: *Bubo scandiacus*

Order: Strigiformes

Family Name: Strigidae

Conservation Status: Declining

Length: 20.5-27.9 in (52-71 cm)

Weight: 56.4-104.1 oz (1600-2950 g)

Wingspan: 49.6-57.1 in (126-145 cm)

Basic Description: The regal Snowy Owl is one of the few birds that can get even non-birders to come out for a look. This largest (by weight) North American owl shows up irregularly in winter to hunt in windswept fields or dunes, a pale shape with catlike yellow eyes. They spend summers far north of the Arctic Circle hunting lemmings, ptarmigan, and other prey in 24-hour daylight. In years of lemming population booms they can raise double or triple the usual number of young.

Nesting Characteristics

Clutch Size: 3-11 eggs

Number of Broods: 1 brood

Egg Length: 2.2 in (5.7 cm)

Egg Width: 1.8 in (4.5 cm)

Incubation Period: 32 days

Nestling Period: 18-25 days

Egg Description: White.

Condition at Hatching: Wet and blind (eyes usually open by day 5); within hours a Snowy Owl hatchling is a little white fluff ball of downy feathers.

Nest Placement: It is thought that the male selects the territory, and the female chooses the

nest site within the territory. Snowy owls nest right on the tundra. They prefer slight, windswept rises that will be dry and blown free of snow.

Nest Description: The Snowy Owl female builds the nest, scraping out a shallow hollow on the bare ground and shaping it by pressing her body into the depression. The process takes a few days, and the owls may reuse the nest site for many years.

Bird Information

Habitat: Whether the tundra or the Great Plains, an airport field or beach dunes, Snowy Owls like treeless places and wide-open spaces. Because they often sit right on the ground to hunt, they prefer rolling terrain where they can find a vantage to survey the surrounding area. On their wintering grounds they'll also perch atop a fencepost, hay bale, building, telephone pole, grain elevator—anywhere with a good view.

Food: Snowy Owls mainly eat small mammals, particularly lemmings, which at times on the tundra may be all these birds eat. Sometimes they'll switch to ptarmigan and waterfowl. Snowy Owls are also one of the most agile owls, able to catch small birds on the fly. On both their breeding and wintering grounds, their diet can range widely to include rodents, rabbits, hares, squirrels, weasels, wading birds, seabirds, ducks, grebes, and geese.

Behavior: Snowy Owls do a lot of sitting. They sit still in the same spot for hours, occasionally swiveling their head or leaning forward and blinking their big, yellow eyes to get a closer look at something. When they hunt, they use extraordinary vision and hearing to draw a bead on their prey—maybe a vole scurrying beneath the snow—and then fly, or even run, over to pounce on it. If successful, they'll down the rodent headfirst in a single gulp. On their breeding grounds, male Snowy Owls execute a fascinating mating display. First the male rises into the air with exaggerated wingbeats in an undulating flight, holding a lemming in his bill or talons. Then he descends to the ground with wings flapping or held in a "V." He drops the prey on the ground, stands erect, then lowers his head and fans his tail as the female approaches. To defend his territory from another Snowy Owl, a male lowers his head and sticks it forward, extending his wings and raising the feathers on his neck and back to seem bigger. To defend against other species, Snowy Owls have been known to dive-bomb and strike at humans. Once it was reported that a Snowy Owl attacked a pair of arctic wolves.

Conservation: Snowy Owls nest in remote areas, have huge territories, and in winter their migrations are widespread and unpredictable, so it's very difficult to estimate their population size. Partners in Flight estimates a global breeding population of 200,000 with 24% wintering in the U.S., and 50% spending some part of the year in Canada. The species rates a 13 out of 20 on the Continental Concern Score. Snowy Owl is a U.S.-Canada Stewardship species, and is listed on the

Color Pattern: Snowy Owls are white birds with varying amounts of black or brown markings on the body and wings. On females this can be quite dense, giving the bird a salt-and-pepper look. Males tend to be paler and become whiter as they age. The eyes are yellow.

Fun Facts

- > The Snowy Owl can be found represented in cave paintings in Europe.
- > In some years, some North American Snowy Owls remain on their breeding grounds year-round, while others migrate in winter to southern Canada and the northern half of the contiguous United States. In the northern plains, New York, and New England, Snowy Owls occur regularly in winter. Elsewhere, such as in the Pacific Northwest, the Midwest, and eastern Canada, Snowy Owls are irruptive, appearing only in some winters but not in others.
- > Male Snowy Owls are barred with dark brown when they're young and get whiter as they get older. Females keep some dark markings throughout their lives. Although the darkest males and the palest females are nearly alike in color, the whitest birds—including the ones that played Harry Potter's Hedwig—are always males and the most heavily barred ones are always females.
- > Snowy owls are territorial on their breeding areas, and sometimes their wintering areas as well. Some Snowy Owls defend their winter territories fiercely, even engaging in combat with other Snowy Owls (a behavior not recorded on their breeding territory). Some banded Snowy Owls return to the same wintering site year after year.
- > Unlike most owls, Snowy Owls are diurnal, extremely so. They'll hunt at all hours during the continuous daylight of an Arctic summer. And they may eat more than 1,600 lemmings in a single year.
- > Snowy Owl young may disperse remarkably far from their birthplace. From a single Snowy Owl nest on Victoria Island in the Canadian Arctic, one young bird went to Hudson Bay, one to southeastern Ontario, and one to the far eastern Russian coast.
- > Thick feathers for insulation from Arctic cold make Snowy Owls North America's heaviest owl, typically weighing about 4 pounds—one pound heavier than a Great Horned Owl and twice the weight of a Great Gray Owl (North America's tallest owl).
- > John James Audubon once saw a Snowy Owl lying at the edge of an ice hole, where it waited for fish and caught them using its feet.
- > The oldest-known Snowy Owl was a female, and at least 23 years, 10 months old when she was recaptured in 2015 during banding operations in Montana. She had been banded in Massachusetts in 1992.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large white owl with piercing yellow eyes. Adult males range from pure white to white with a few brown spots.



Adult female/immature

Females/immatures are white with darker barring throughout except on the face, which is always white.



Immature female

Immature females have extensive dark barring throughout and a white face.



Adult female/immature

Large, hefty owl. In flight note all-white underwings and broad wings.



Immature female

Immature females are barred throughout, but note white underwings in flight.



Adult male

Some adult males are entirely white.



Immature female

During the winter in some years Snowy Owls show up farther south than normal, to hunt in fields, dunes, and other open areas.



Immature female

Often found sitting on or near the ground in wide-open areas or perching on rises such as the crests of dunes, fenceposts, telephone poles, or hay bales.

Barred Owl

Bird Characteristics

Scientific Name: *Strix varia*

Order: Strigiformes

Family Name: Strigidae

Conservation Status: Low Concern

Length: 16.9-19.7 in (43-50 cm)

Weight: 16.6-37.0 oz (470-1050 g)

Wingspan: 39.0-43.3 in (99-110 cm)

Basic Description: The Barred Owl's hooting call, "Who cooks for you? Who cooks for you-all?" is a classic sound of old forests and treed swamps. But this attractive owl, with soulful brown eyes and brown-and-white-striped plumage, can also pass completely unnoticed as it flies noiselessly through the dense canopy or snoozes on a tree limb. Originally a bird of the east, during the twentieth century it spread through the Pacific Northwest and southward into California.

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1 brood

Egg Length: 1.7-2.2 in (4.3-5.6 cm)

Egg Width: 1.5-1.8 in (3.8-4.5 cm)

Incubation Period: 28-33 days

Nestling Period: 28-35 days

Egg Description: Pure white, with a rough surface.

Condition at Hatching: Helpless and covered with white down, with closed eyes.

Bird Information

Habitat: Barred Owls live year-round in mixed forests of large trees, often near water. They tend to occur in large, unfragmented blocks of mature forest, possibly because old woodlands support a higher diversity of prey and are more likely to have large cavities suitable for nesting. Their preferred habitats range from swamps to streamsides to uplands, and may contain hemlock, maple, oak, hickory, beech, aspen, white spruce, quaking aspen, balsam poplar, Douglas-fir, lodgepole pine, or western larch.

Food: Barred Owls eat many kinds of small animals, including squirrels, chipmunks, mice, voles, rabbits, birds (up to the size of grouse), amphibians, reptiles, and invertebrates. They hunt by sitting and waiting on an elevated perch, while scanning all around for prey with their sharp eyes and ears. They may perch over water and drop down to catch fish, or even wade in shallow water in pursuit of fish and crayfish. Though they do most of their hunting right after sunset and during the night, sometimes they feed during the day. Barred Owls may temporarily store their prey in a nest, in the crook of a branch, or at the top of a snag. They swallow small prey whole and large prey in pieces, eating the head first and then the body.

Behavior: Barred Owls roost on branches and in tree cavities during the day and hunt by night. Territorial all year round, they chase away intruders while hooting loudly. They are even more aggressive during nesting season (particularly the females), sometimes striking intruders with their feet. Pairs probably mate for life, raising one brood each year. Their nests are preyed upon by other large owls and hawks, as well as by weasels and raccoons. When humans interfere with a nest, the parent may flee, perform a noisy distraction display with quivering wings, or even attack. Other birds recognize Barred Owls as predators; small songbirds, crows, and woodpeckers may band together to mob them. Their most dangerous predator is the Great Horned Owl, which eats eggs, young birds, and occasionally adults.

Conservation:

Color Pattern: Barred Owls are mottled brown and white overall, with dark brown, almost black, eyes. The underparts are mostly marked with vertical brown bars on a white background, while the upper breast is crossed with horizontal brown bars. The wings and tail are barred brown and white.

Fun Facts

-> The Great Horned Owl is the most serious predatory threat to the Barred Owl. Although the two species often live in the same areas, a Barred Owl will move to another part of its territory when a Great Horned Owl is nearby.

-> Pleistocene fossils of Barred Owls, at least 11,000 years old, have been dug up in Florida, Tennessee, and Ontario.

-> Barred Owls don't migrate, and they don't even move around very much. Of 158 birds that were banded and then found later, none had moved farther than 6 miles away.

-> Despite their generally sedentary nature, Barred Owls have recently expanded their range into the Pacific Northwest. There, they are displacing and hybridizing with Spotted Owls—their slightly smaller, less aggressive cousins—which are already threatened from habitat loss.

-> Young Barred Owls can climb trees by grasping the bark with their bill and talons, flapping their wings, and walking their way up the trunk.

-> The oldest recorded Barred Owl was at least 24 years, 1 month old. It was banded in Minnesota in 1986, and found dead, entangled in fishing gear, in the same state in 2010.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult (Northern)

Fairly large, with dark eyes and a yellow bill. Buffy below with dark streaks, and brown on the back with white mottling.



Adult (Northern)

Upperparts are brown with mottling, and the tail is brown with white barring.



Juvenile (Northern)

Juveniles are gray and fluffy with darker brown barring and mottling throughout.



Adult (Northern)

Often occurs as pairs throughout the year.



Adult (Northern)

Hunts for a variety of prey, including amphibians and fish.



Adult (Northern)

Typically occurs in well wooded habitats, but will come to edges and more open areas.

Eastern Screech-Owl

Bird Characteristics

Scientific Name: *Megascops asio*

Order: Strigiformes

Family Name: Strigidae

Conservation Status: Low Concern

Length: 6.3-9.8 in (16-25 cm)

Weight: 4.3-8.6 oz (121-244 g)

Wingspan: 18.9-24.0 in (48-61 cm)

Basic Description: If a mysterious trill catches your attention in the night, bear in mind the spooky sound may come from an owl no bigger than a pint glass. Common east of the Rockies in woods, suburbs, and parks, the Eastern Screech-Owl is found wherever trees are, and they're even willing to nest in backyard nest boxes. These supremely camouflaged birds hide out in nooks and tree crannies through the day, so train your ears and listen for them at night.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1 brood

Egg Length: 1.3-1.4 in (3.4-3.6 cm)

Egg Width: 1.1-1.2 in (2.9-3 cm)

Incubation Period: 27-34 days

Nestling Period: 26-30 days

Egg Description: White.

Condition at Hatching: covered in white down; eyes closed.

Nest Placement: Eastern Screech-Owls nest in holes and cavities, but never dig a cavity themselves. Thus, they depend on tree holes opened or enlarged by woodpeckers, fungus, rot, or squirrels. They often occupy abandoned woodpecker nest holes. Eastern Screech-Owls

readily accept nest boxes, including those built for Wood Ducks or Purple Martins, and sometimes nest in wood piles, mailboxes, or crates left on the ground.

Nest Description: Eastern Screech-Owls build no nest. The female lays her eggs on whatever debris is at the bottom of her nesting cavity, be it wood-chips, twigs, or the cast-off feathers and droppings from a previous year's nest. Settling in, she makes a body-shaped depression where her eggs lie.

Bird Information

Habitat: Almost any habitat with sufficient tree cover will do for this cosmopolitan owl. Tree cavities or nest boxes are essential, and fairly open understories are preferred, but Eastern Screech-Owls live and breed successfully in farmland, suburban landscapes, and city parks. On the Great Plains, at the westernmost edge of its range, Eastern Screech-Owls occur in the uneven traces of wooded land along streams and rivers. Screech-owls cannot survive if all trees are removed, but the species readily recolonizes once trees are replanted, especially if nest boxes are also provided.

Food: Eastern Screech-Owls eat most kinds of small animals, including birds and mammals as well as surprisingly large numbers of earthworms, insects, crayfish, tadpoles, frogs, and lizards. They eat many kinds of mammals, including rats, mice, squirrels, moles, and rabbits. Small birds taken as prey include flycatchers, swallows, thrushes, waxwings, and finches, as well as larger species such as jays, grouse, doves, shorebirds, and woodpeckers. This owl is agile enough to occasionally prey on bats, and can rarely even be cannibalistic. When prey is plentiful, Eastern Screech-Owls cache extra food in tree holes for as long as four days.

Behavior: Eastern Screech-Owls are chiefly active at night, though they often hunt at dawn or dusk, and occasionally in daylight. These versatile hunters sit and wait in the trees for prey to pass below. They tend to pounce from perches six to ten feet off the ground, occasionally snatching an insect or bat on the wing or hitting shallow water talons-first to snag fish or tadpoles. Most flights are short (less than 75 feet or so). When traveling between perches, these owls often drop, fly straight, then rise again, in a characteristic U-shaped pattern. Eastern Screech-Owls form stable matches, usually one male with one female but occasionally one male with two females. Males defend small territories containing several cavity roost spots. When nesting, the female stays in the nest hole except for brief dawn and dusk excursions. She and the nestlings are fed by her mate, though it is the female who tears the prey into small bits for the babies. At fledging, the young first hop to the ground or nearby branches, using feet and fluttering wings to climb laboriously back to safety. Young gain flight and hunting skills slowly; they depend on their parents for food for 8–10 weeks after fledging. Both parents feed the youngsters at this stage, and adults, especially the females, shelter together with the young in communal tree roosts. Gradually, as the young gain skill, they begin to roost and hunt apart from their parents and siblings.

Conservation: Eastern Screech-Owl numbers are difficult to determine owing to their nocturnal lifestyle. The North American Breeding Bird Survey estimate that between 1966 and 2015,

numbers increased in Canada, but declined in the U.S. Partners in Flight estimates a global breeding population of 900,000 with 95% living in the U.S., 4% in Mexico, and 1% in Canada. The species rates a 10 out of 20 on the Continental Concern Score. Eastern Screech-Owl is not on the

Color Pattern: Eastern Screech-Owls can be either mostly gray or mostly reddish-brown (rufous). Whatever the overall color, they are patterned with complex bands and spots that give the bird excellent camouflage against tree bark. Eyes are yellow.

Fun Facts

-> Like most raptors, male Eastern Screech-Owls are smaller than females, and are more agile fliers and hunters. The female doesn't hunt while on the nest; she and the chicks depend on food brought them by the male. Though the male is smaller, his voice is deeper than the female's.

-> Smaller birds can help you find screech-owls during the day. Listen for a commotion of Blue Jays, chickadees, and titmice—they may be mobbing a screech-owl (or other raptor), swooping around it with noisy calls. This can be enough of a nuisance to make the owl move on, and it alerts other birds to the predator's presence and teaches younger members of the flock about the danger.

-> Screech-owls regurgitate the bones, fur, and feathers of their prey in an oval pellet, usually once or twice a day. The ground beneath habitual owl roosts can be littered with pellets, and you can learn a lot from them about the owl's diet. However, data from pellets may underestimate the number of soft-bodied animals, like worms and insects, the owl has eaten.

-> Eastern Screech-Owls of the suburbs may fledge more young than their rural counterparts, probably because their predators are scarcer in the suburbs.

-> Red and gray individuals occur across the range of the Eastern Screech-Owl, with about one-third of all individuals being red. Rufous owls are more common in the East, with fewer than 15% red at the western edge of the range. No red owls are known from southern Texas, although they occur further north in Texas and further south in Mexico. Intermediate brownish individuals also occur in most populations.

-> Eastern Screech-Owl pairs usually are monogamous and remain together for life. Some males, however, will mate with two different females. The second female may evict the first female, lay her own eggs in the nest, and incubate both clutches.

-> The Eastern Screech-Owl is known to eat a variety of songbirds, including the European Starling. Despite this fact, the starling regularly displaces the owl from nesting sites and takes over the hole to raise its own brood.

-> Nestling screech-owls fight fiercely among themselves for food, and sometimes even kill their smallest sibling. This behavior, known as siblicide, is not uncommon among birds such as hawks, owls, and herons, and is often a result of poor breeding conditions in a given year.

-> The oldest recorded Eastern Screech-Owl in the wild was at least 14 years, 6 months old when it was found in Ontario in 1968, the same province where it had been banded in 1955.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult gray morph (McCall's)

Small, with short ear tufts and a dark bill. Gray overall, with dark vertical streaks and fine dark barring. Yellow eyes often hard to see during the day. The McCall's form in southern Texas and northern Mexico has a pale bill, and lacks a red morph.



Adult red morph (Northern)

Red morph is bright reddish brown with darker vertical streaks and some white feathering on the underparts.



Adult brown morph (Northern)

Brown morph is grayish brown overall with dark streaks and some white feathering on the underparts. Some birds have a pale bill.



Juvenile (Northern)

Juveniles are fluffy and gray with very fine barring throughout.



Adult red morph (Northern)

Nests in cavities, including artificial nest boxes.



Adult gray morph (Northern)

Usually occurs in well-wooded habitats, and roosts in cavities.

Chuck-will's-widow

Bird Characteristics

Scientific Name: *Antrostomus carolinensis*

Order: Caprimulgiformes

Family Name: Caprimulgidae

Conservation Status: Common Bird in Steep Decline

Length: 11.0-12.6 in (28-32 cm)

Weight: 2.3-6.6 oz (66-188 g)

Wingspan: 22.8-24.0 in (58-61 cm)

Basic Description: Listen at dusk and at night for the rolling, seemingly endless call of the Chuck-will's-widow. If you are lucky and have a keen eye, by day they can be found resting motionless on the ground or on a horizontal branch. This is the largest nightjar in North America, but their dappled brown plumage makes them blend in perfectly to dry woodlands of the Southeast.

Nesting Characteristics

Clutch Size: 1-4 eggs

Number of Broods: 1 brood

Egg Length: 1.3-1.6 in (3.3-4 cm)

Egg Width: 0.9-1.1 in (2.3-2.8 cm)

Incubation Period: 20-21 days

Nestling Period: 16-17 days

Egg Description: White to gray, with variable dark markings.

Condition at Hatching: Weak but with eyes open, covered in long, light-brown down, able to walk.

Nest Placement: Nest sites are typically in dense thickets near openings such as road edges or forest clearings.

Nest Description: Chuck-will's-widows don't build nests; they simply lay their eggs on the ground among dead leaves, pine needles, or bare dirt. Incubating adults are incredibly well camouflaged and virtually invisible unless you nearly step on them.

Bird Information

Habitat: Chuck-will's-widows breed in pine, oak-hickory, and other forests of the Southeast and Mid-Atlantic states. They tend to live in more open areas than the similar Whip-poor-will. In winter you can find them in brush, woodlands, hedgerows, thickets, and fields as far south as Colombia, Venezuela, and the Caribbean.

Food: Chuck-will's-widows catch flying insects at night. They eat mainly moths, beetles—including June beetles, scarabs, longhorned beetles, and click beetles—and dragonflies. Very occasionally, they have been seen eating birds such as Hooded, Palm, Yellow, and Cape May Warblers, Common Yellowthroat, Swamp Sparrow, Carolina Wren, Cuban Emerald (a hummingbird), as well as bats.

Behavior: The Chuck-will's-widow's most apparent behavior is its incessant calling at night—the most typical experience people have with these birds. They do most of their foraging at dusk and dawn—though during full moons or under streetlights, when visibility is good, they may forage much of the night. They are buoyant and maneuverable in flight, catching flying insects with a short dive or chase followed by a snap of the bill. Long, stiff feathers around the mouth, called rictal bristles, help guide prey into their very wide gapes. Territorial males chase each other up to a quarter-mile while making a growling call. In courtship, males droop their wings, spread their tail feathers, ruffle their feathers and puff themselves up while calling to the female.

Conservation: Chuck-will's-widow numbers declined by about 2.3% per year between 1966 and 2015, resulting in a cumulative decline of 69%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 6 million with 100% spending some part of the year in the U.S., and 13% in Mexico. The species rates a 12 out of 20 on the Continental Concern Score. Chuck-will's-widow was on the

Color Pattern: Warm brown tones with intricately patterned feathers make them extremely well-camouflaged. The wings are entirely brown; the outer tail feathers have white inner webs that you might see as one flushes from a roost or passes through your headlights. More often, you won't see white in the tail—this helps separate it from Whip-poor-will, in which the white is more prominent.

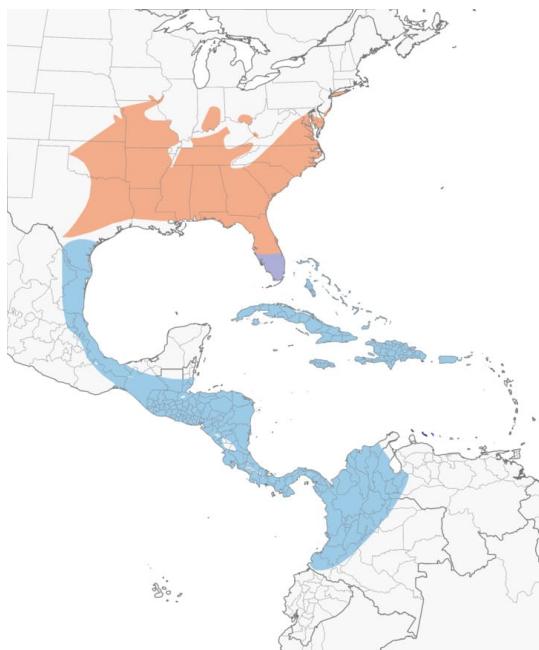
Fun Facts

-> The Chuck-will's-widow hunts actively by flying low over the ground in search of insects.

Occasionally, small birds and bats are included in its diet.

-> The oldest recorded Chuck-will's-widow was a male, and at least 14 years, 10 months old when he was shot in the Dominican Republic and Haiti in 1992. He had been banded in Florida in 1978.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large, flat-headed nightjar. Upperparts are mottled brown, buff, and black. In flight, males flash thin stripes of white on the tail. Males and females do not flash white in the wing.



Adult female

Flat-headed nightjar with a long tail and long, pointed wings. Females have a buffy spot on the tips of the outer tail feathers.



Adult

Extremely well camouflaged. Often roosts on the ground or tree branch

during the day.



Adult
None



Adult
None

Common Nighthawk

Bird Characteristics

Scientific Name: *Chordeiles minor*

Order: Caprimulgiformes

Family Name: Caprimulgidae

Conservation Status: Common Bird in Steep Decline

Length: 8.7-9.4 in (22-24 cm)

Weight: 2.3-3.5 oz (65-98 g)

Wingspan: 20.9-22.4 in (53-57 cm)

Basic Description: On warm summer evenings, Common Nighthawks roam the skies over treetops, grasslands, and cities. Their sharp, electric

Nesting Characteristics

Clutch Size: 2 eggs

Number of Broods: 1-2 broods

Egg Length: 1.2 in (3 cm)

Egg Width: 0.8 in (2.1 cm)

Incubation Period: 16-20 days

Nestling Period: 17-18 days

Egg Description: Creamy white to pale olive gray, heavily speckled with gray, brown, and black.

Condition at Hatching: Active and sparsely covered with down (dark gray above and creamy below), with eyes half or fully open.

Nest Placement: The female probably selects the nest site, usually on unsheltered ground, gravel beaches, rocky outcrops, and open forest floors. Nests are typically out in the open, but may also be near logs, boulders, grass clumps, shrubs, or debris. In cities, Common Nighthawks nest on flat gravel roofs.

Nest Description: Common Nighthawks lay eggs directly on the ground, which may consist of gravel, sand, bare rock, wood chips, leaves, needles, slag, tar paper, cinders, or living vegetation, such as moss, dandelion rosettes, and lichens.

Bird Information

Habitat: Common Nighthawks nest in both rural and urban habitats including coastal sand dunes and beaches, logged forest, recently burned forest, woodland clearings, prairies, plains, sagebrush, grasslands, open forests, and rock outcrops. They also nest on flat gravel rooftops, though less often as gravel roofs are being replaced by smooth, rubberized roofs that provide an unsuitable surface. During migration, Common Nighthawks stop in farmlands, river valleys, marshes, coastal dunes, and open woodlands. Their South American wintering habitat is not well known.

Food: Common Nighthawks eat flying insects almost exclusively. The Common Nighthawk hunts on the wing at dawn and dusk, opening its tiny beak to reveal a cavernous mouth well suited for snapping up flying insects. It often takes advantage of clouds of insects attracted to streetlamps, stadium lights, and other bright lights. Nighthawks eat queen ants, wasps, beetles, caddisflies, moths, bugs, mayflies, flies, crickets, grasshoppers, and other insects. They may also eat a small amount of vegetation. Though they forage in low light, they seem to locate prey by sight, possibly with the help of a structure in their eyes that reflects light back to the retina to improve their night vision. They occasionally forage during the day in stormy weather, but seem to never forage at night. Common Nighthawks may forage near the ground or water, or more than 500 feet into the sky.

Behavior: Common Nighthawks are most active from half an hour before sunset until an hour after sunset, and again starting an hour before sunrise (ending about 15 minutes after the sun comes up). They fly with looping, batlike bouts of continuous flapping and sporadic glides. Common Nighthawks are usually solitary, but they form large flocks during migration and males sometimes roost together. Large migrating flocks are most conspicuous in early evening, particularly as the birds gather above billboards and other bright lights to feed on insects. During the breeding season they are generally very territorial but in some areas may have overlapping territories. Males court females by diving through the air, making a booming sound as air rushes over their wings. The male eventually lands on the ground before the female, spreading and waggling his tail, and puffing out his throat to display his white throat patch, while croaking at her. Females incubate the eggs and young, leaving them unattended in the evening to feed. Both males and females feed regurgitated insects to their chicks. Parents perform diversion displays to draw intruders away from the nest. Common Nighthawks may be chased from feeding and breeding areas by smaller, more maneuverable bats and Lesser Nighthawks.

Conservation: In the U.S., Common Nighthawk populations declined by almost 2% per year between 1966 and 2014, amounting to a cumulative decline of 61%, according to the North American Breeding Bird Survey. Canadian populations experienced declines of over 4% and recent data suggest the species' numbers may have dropped more than half in Canada since

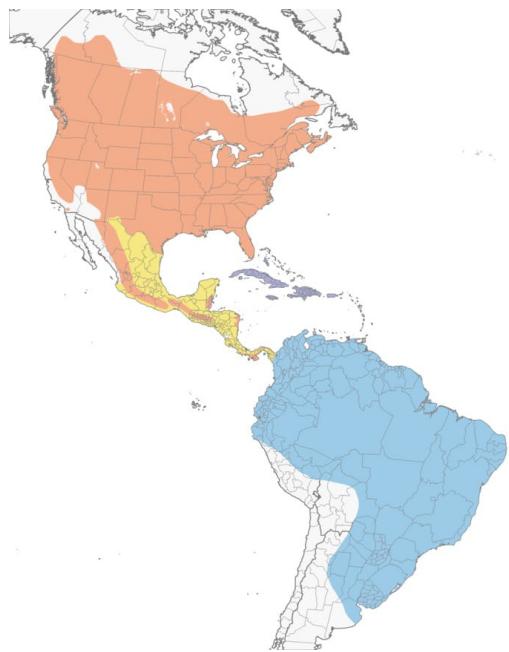
the mid-1960s. Hard numbers are difficult to come by because the Common Nighthawk's cryptic colors and nearly nocturnal habits make them difficult to count during standardized surveys. Partners in Flight estimates the global breeding population at 16 million, with 88% breeding in the U.S., 5% in Canada, and 4% spending some part of the year in Mexico. The

Color Pattern: Common Nighthawks are well camouflaged in gray, white, buff, and black. The long, dark wings have a striking white blaze about two-thirds of the way out to the tip. In flight, a V-shaped white throat patch contrasts with the rest of the bird's mottled plumage.

Fun Facts

- > On summer evenings, keep an eye and an ear out for the male Common Nighthawk's dramatic "booming" display flight. Flying at a height slightly above the treetops, he abruptly dives for the ground. As he peels out of his dive (sometimes just a few meters from the ground) he flexes his wings downward, and the air rushing across his wingtips makes a deep booming or whooshing sound, as if a racecar has just passed by. The dives may be directed at females, territorial intruders, and even people.
- > The Common Nighthawk's impressive booming sounds during courtship dives, in combination with its erratic, bat-like flight, have earned it the colloquial name of "bullbat." The name "nighthawk" itself is a bit of a misnomer, since the bird is neither strictly nocturnal—it's active at dawn and dusk—nor closely related to hawks.
- > Many Late Pleistocene fossils of Common Nighthawks, up to about 400,000 years old, have been unearthed between Virginia and California and from Wyoming to Texas.
- > Common Nighthawks, which have one of the longest migration routes of all North American birds, sometimes show up far out of range. They have been recorded in Iceland, Greenland, the Azores, the Faroe Islands, and multiple times on the British Isles.
- > The oldest Common Nighthawk on record was a female, and at least 9 years old. She was recaptured during banding operations in Ohio.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Medium-sized, slender bird with long, pointed wings. Note white patch on the wings located closer to the bend in the wing.



Adult

Extremely short-legged with a tiny bill and small flat head. Looks rather chunky when perched, but slim in flight. Well camouflaged in gray, white, buff, and black. Note white patch on lower edge of the wing.



Adult

Long-winged and flat-headed with a tiny bill. Plumage color varies across

the range with some individuals having more rusty tones while others are grayer. Note white patch on lower edge of the wing.



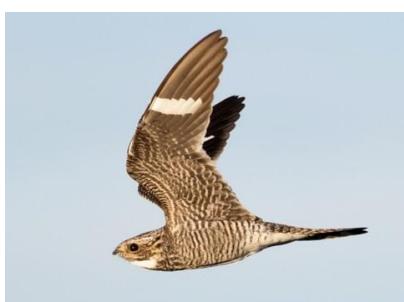
Adult

Nests on the ground in open areas such as gravel bars, forest clearings, coastal sand dunes, or sparsely vegetated grasslands.



Adult

None



None

None



Adult
None



Adult
Most active and dusky and dawn. During the day roosts in trees, on the ground, or on a flat roof.



Adult
None

Chimney Swift

Bird Characteristics

Scientific Name: *Chaetura pelagica*

Order: Caprimulgiformes

Family Name: Apodidae

Conservation Status: Declining

Length: 4.7-5.9 in (12-15 cm)

Weight: 0.6-1.1 oz (17-30 g)

Wingspan: 10.6-11.8 in (27-30 cm)

Basic Description: A bird best identified by silhouette, the smudge-gray Chimney Swift nimbly maneuvers over rooftops, fields, and rivers to catch insects. Its tiny body, curving wings, and stiff, shallow wingbeats give it a flight style as distinctive as its fluid, chattering call. This enigmatic little bird spends almost its entire life airborne. When it lands, it can't perch—it clings to vertical walls inside chimneys or in hollow trees or caves. This species has suffered sharp declines as chimneys fall into disuse across the continent.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.9 in (1.7-2.2 cm)

Egg Width: 0.5-0.6 in (1.2-1.4 cm)

Incubation Period: 16-21 days

Nestling Period: 14-19 days

Egg Description: Pure white.

Condition at Hatching: Helpless and naked.

Nest Placement: Although they originally nested in natural sites such as caves and hollow trees of old-growth forests, Chimney Swifts now nest primarily in chimneys and other artificial

sites with vertical surfaces and low light (including air vents, old wells, abandoned cisterns, outhouses, boathouses, garages, silos, barns, lighthouses, and firewood sheds). Both members of a breeding pair may fly toward several potential nest locations, then cling side by side at one particular site, with one member of the pair giving a rhythmic chipping call.

Nest Description: The nest is a half-saucer of loosely woven twigs, stuck together and cemented to the chimney wall with the bird's glue-like saliva. Both parents independently contribute to the nest: they break off small twigs with their feet while flying through branches, then return to the nest site with the twigs in their bills. The completed nest measures 2–3 inches from front to back, 4 inches wide, and 1 inch deep.

Bird Information

Habitat: Chimney Swifts breed in urban and suburban habitats across the eastern half of the United States and southern Canada. They are most common in areas with a large concentration of chimneys for nest sites and roosts. In rural areas they may still nest in hollow trees, tree cavities, or caves. Chimney Swifts forage mostly over open terrain but also over forests, ponds, and residential areas. During migration they forage in flocks over forests and open areas and roost in chimneys at night. They spend the winter in the upper Amazon basin of Peru, Ecuador, Chile, and Brazil, where they are found in open terrain and on roosts in chimneys, churches, and caves.

Food: Chimney Swifts eat airborne insects. Feeding on the wing, they capture flies, bugs, bees, wasps, ants, mayflies, stoneflies, beetles, caddisflies, fleas, craneflies, and other insects. They grab large insects with their bills; small ones go right down the throat. Chimney Swifts feed over urban and residential neighborhoods, fields, grasslands, shrublands, orchards, forests, and marshes, usually some distance away from nest sites. They can also pick insects from branch tips and "helicopter" down through the foliage to flush out prey. Normally diurnal foragers, they sometimes hunt for insects at night around streetlights or lit windows. They have been reported taking berries from elderberry bushes.

Behavior: Chimney Swifts spend their lives airborne, except when they are roosting or on the nest. They perform aerial courtship displays within 2 weeks of arriving on their North American breeding grounds, forming monogamous pairs for the season. In one of the best known displays, two birds fly close together, calling; first the rear bird and then the leader snaps its wings into a V-shape and the two glide together in a downward curve. Unmated birds roost together in large flocks, sometimes even in a chimney occupied by a nesting pair. Often an unmated helper may assist a breeding pair with rearing the young. After the young fledge, small groups of parents and young from several chimneys join larger staging flocks in bigger chimneys nearby. At the end of summer they gather into large groups to migrate to South America. During migration, as many as 10,000 swifts may circle in a tornado-like flock at dusk and funnel into a roosting chimney to spend the night. The lives of these widespread urban birds are surprisingly unstudied, because of their inaccessible nesting and roosting sites and their aerial lifestyle.

Conservation: Chimney Swifts have been in a long-term, rangewide decline of about 2.5% per year between 1966 and 2015, resulting in a cumulative decline of 72%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 7.8 million, with 99% breeding in the U.S., and 1% in Canada. The

Color Pattern: They are dark gray-brown all over, slightly paler on the throat. At distance and when backlit against the sky they can appear to be all black.

Fun Facts

-> Before European settlement brought chimneys to North America, Chimney Swifts nested in caves, cliff faces, and hollow trees. Their numbers rose accordingly, but a recent shift in chimney designs toward covered, narrow flues are unsuitable for nesting and may be contributing to a decline in this species' numbers. For information about a Chimney Swift tower made specifically for nesting swifts, you can visit the

-> Chimney Swifts are among the most aerial of birds, flying almost constantly except when roosting overnight and nesting. When they do come to rest, they never sit on perches like most birds. Their long claws are suited only for clinging to the walls of chimneys and other vertical surfaces.

-> Swifts even bathe in flight: they glide down to the water, smack the surface with their bodies, and then bounce up and shake the water from their plumage as they fly away.

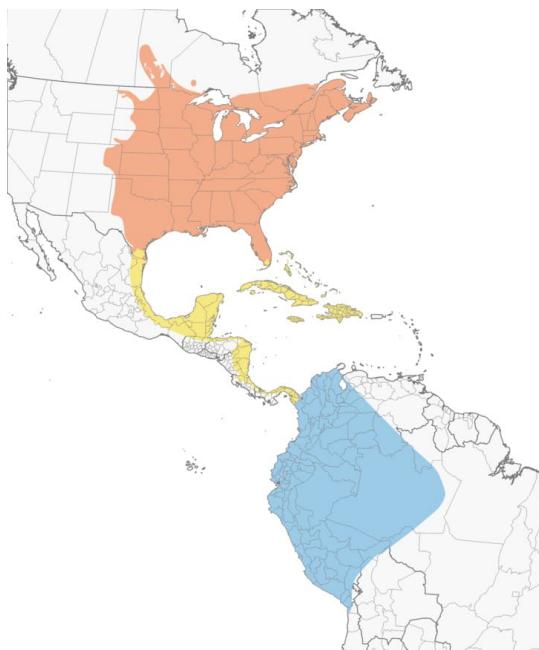
-> Large numbers of Chimney Swifts roost together in a single chimney during the nonbreeding season. There's warmth in numbers: during cold nights, the temperature inside a chimney roost can be 70°F warmer than outside.

-> Unmated swifts continue roosting together in the summer, sometimes in large groups. But the species does not nest colonially: you'll find only one breeding pair nesting in any one chimney. The pair may tolerate other nonbreeders roosting in their chimney.

-> The Chimney Swift uses glue-like saliva from a gland under its tongue to cement its nest to the chimney wall or rock face. Sometimes an unmated swift helps the breeding pair rear the young. The young outgrow the nest after about two weeks and have to cling to the nearby wall, in many cases even before their eyes are open.

-> The oldest recorded Chimney Swift was a male, and at least 14 years old when he was recaptured and released during banding operations in Ohio in 1970. He had been banded in the same state in 1957.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Small with slender tube-shaped body and very long, narrow, curved wings.
Dark gray-brown overall with a slightly paler throat.
None



Tube or cigar-shaped body with long curved wings and a short tail. Dark gray-brown overall.
None



None
None



None
None



Does not perch, clings to the walls of chimneys and other vertical surfaces with its tiny feet.

None



Nests in chimneys and on other vertical surfaces in dim, enclosed areas, including air vents, wells, hollow trees, and caves.

None

Ruby-throated Hummingbird

Bird Characteristics

Scientific Name: *Archilochus colubris*

Order: Caprimulgiformes

Family Name: Trochilidae

Conservation Status: Low Concern

Length: 2.8-3.5 in (7-9 cm)

Weight: 0.1-0.2 oz (2-6 g)

Wingspan: 3.1-4.3 in (8-11 cm)

Basic Description: A flash of green and red, the Ruby-throated Hummingbird is eastern North America's sole breeding hummingbird. These brilliant, tiny, precision-flying creatures glitter like jewels in the full sun, then vanish with a zip toward the next nectar source. Feeders and flower gardens are great ways to attract these birds, and some people turn their yards into buzzing clouds of hummingbirds each summer. Enjoy them while they're around; by early fall they're bound for Central America, with many crossing the Gulf of Mexico in a single flight.

Nesting Characteristics

Clutch Size: 1-3 eggs

Number of Broods: 1-2 broods

Egg Length: 0.5-0.6 in (1.2-1.4 cm)

Egg Width: 0.3-0.3 in (0.8-0.9 cm)

Incubation Period: 12-14 days

Nestling Period: 18-22 days

Egg Description: Tiny, white, weighting about half a gram, or less than one-fiftieth of an ounce.

Condition at Hatching: Naked apart from two tracts of gray down along the back, eyes closed, clumsy.

Nest Placement: Females build their nests on a slender, often descending branch, usually of

deciduous trees like oak, hornbeam, birch, poplar, or hackberry; sometimes pine. Nests are usually 10-40 feet above the ground. Nests have also been found on loops of chain, wire, and extension cords.

Nest Description: The nest is the size of large thimble, built directly on top of the branch rather than in a fork. It's made of thistle or dandelion down held together with strands of spider silk and sometimes pine resin. The female stamps on the base of the nest to stiffen it, but the walls remain pliable. She shapes the rim of the nest by pressing and smoothing it between her neck and chest. The exterior of the nest is decorated (probably camouflaged) with bits of lichen and moss. The nest takes 6-10 days to finish and measures about 2 inches across and 1 inch deep.

Bird Information

Habitat: Ruby-throated Hummingbirds occur in deciduous woodlands of eastern North America as well as across the Canadian prairies. Commonly associated with old fields, forest edges, meadows, orchards, stream borders, and backyards. On their tropical wintering grounds, Ruby-throated Hummingbirds live in dry forests, citrus groves, hedgerows, and scrub.

Food: Ruby-throated Hummingbirds feed on the nectar of red or orange tubular flowers such as trumpet creeper, cardinal flower, honeysuckle, jewelweed, bee-balm, red buckeye and red morning glory, as well as at hummingbird feeders and, sometimes, tree sap. Hummingbirds also catch insects in midair or pull them out of spider webs. Main insect prey includes mosquitoes, gnats, fruit flies, and small bees; also eats spiders. Ruby-throated Hummingbirds sometimes take insects attracted to sap wells or picks small caterpillars and aphids from leaves.

Behavior: Like all hummingbirds, ruby-throats are precision flyers with the ability to fly full out and stop in an instant, hang motionless in midair, and adjust their position up, down, sideways, and backwards with minute control. They dart between nectar sources with fast, straight flights or sit on a small twig keeping a lookout, bill waving back and forth as the bird looks around. Male Ruby-throated Hummingbirds aggressively defend flowers and feeders, leading to spectacular chases and dogfights, and occasional jabs with the beak. They typically yield to larger hummingbird species (in Mexico) and to the notoriously aggressive Rufous Hummingbird. Males give a courtship display to females that enter their territory, making a looping, U-shaped dive starting from as high as 50 feet above the female. If the female perches, the male shifts to making fast side-to-side flights while facing her.

Conservation: Ruby-throated Hummingbird populations have steadily increased every year from 1966 to 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 20 million with 84% spending some part of the year in the U.S., 51% in Mexico, and 16% breeding in Canada. The species rates an 8 out of 20 on the Continental Concern Score. Ruby-throated Hummingbird is not on the

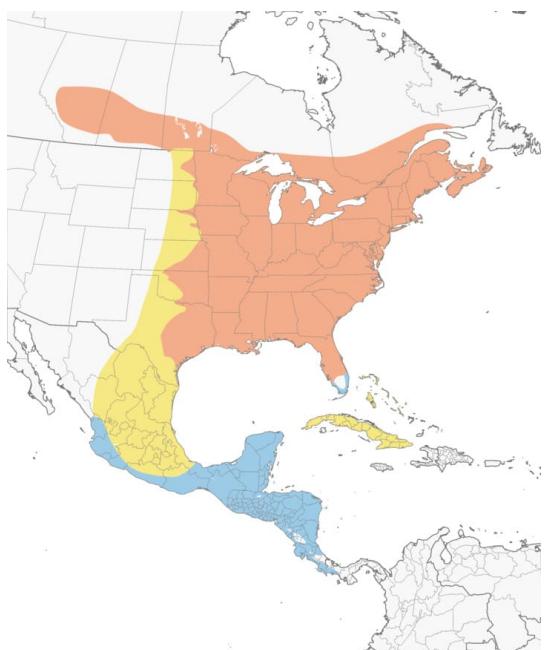
Color Pattern: Ruby-throated Hummingbirds are bright emerald or golden-green on the back and crown, with gray-white underparts. Males have a brilliant iridescent red throat that looks

dark when it's not in good light.

Fun Facts

- > The Ruby-throated Hummingbird beats its wings about 53 times a second.
- > The extremely short legs of the Ruby-throated Hummingbird prevent it from walking or hopping. The best it can do is shuffle along a perch. Nevertheless, it scratches its head and neck by raising its foot up and over its wing.
- > Scientists place hummingbirds and swifts in the same taxonomic order, the Apodiformes. The name means “without feet,” which is certainly how these birds look most of the time.
- > Ruby-throated Hummingbirds prefer to feed on red or orange flowers (though it's not necessary to color the sugar water you put in a hummingbird feeder). Like many birds, hummingbirds have good color vision and can see into the ultraviolet spectrum, which humans can't see.
- > Ruby-throated Hummingbirds normally place their nest on a branch of a deciduous or coniferous tree; however, these birds are accustomed to human habitation and have been known to nest on loops of chain, wire, and extension cords.
- > Ruby-throated Hummingbirds are eastern North America's only breeding hummingbird. But in terms of area, this species occupies the largest breeding range of any North American hummingbird.
- > Male Ruby-throated Hummingbirds don't stick around long. Pairs are together long enough for courtship and mating – just a matter of days to weeks. Then he's off on his own, and may begin migration by early August.
- > The oldest known Ruby-throated Hummingbird was a female, and at least 9 years, 1 month old when she was recaptured and rereleased during banding operations in West Virginia.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Tiny, with long wings and bill. Dusky below with a bright red throat, black mask, and green crown.



Female

None



Adult male

None



Adult male

In some lights the throat of the adult male can appear black.



Female

Feeds on a variety of flowering plants. Tiny, with long wings and bill. Mostly white below, with buffy flanks, a dusky mask, and green upperparts.



Adult male

Upperparts bright metallic green, and short tail is black and forked.



Female

Upperparts bright metallic green, and short tail is mostly black with white tips to the outer feathers.



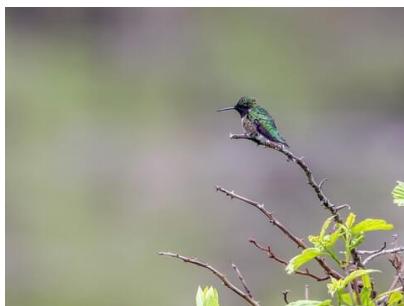
Immature male

Immature males have some red feathers on the throat.



Juvenile

None



Adult male

Sometimes perches prominently on exposed branches.

Belted Kingfisher

Bird Characteristics

Scientific Name: *Megaceryle alcyon*

Order: Coraciiformes

Family Name: Alcedinidae

Conservation Status: Low Concern

Length: 11.0-13.8 in (28-35 cm)

Weight: 4.9-6.0 oz (140-170 g)

Wingspan: 18.9-22.8 in (48-58 cm)

Basic Description: With its top-heavy physique, energetic flight, and piercing rattle, the Belted Kingfisher seems to have an air of self-importance as it patrols up and down rivers and shorelines. It nests in burrows along earthen banks and feeds almost entirely on aquatic prey, diving to catch fish and crayfish with its heavy, straight bill. These ragged-crested birds are a powdery blue-gray; males have one blue band across the white breast, while females have a blue and a chestnut band.

Nesting Characteristics

Clutch Size: 5-8 eggs

Number of Broods: 1-2 broods

Egg Length: 1.2-1.5 in (3-3.7 cm)

Egg Width: 1.0-1.1 in (2.5-2.9 cm)

Incubation Period: 22-24 days

Nestling Period: 27-29 days

Egg Description: Pure white, smooth, and glossy.

Condition at Hatching: Helpless, with bare pink skin, blackish bill, and closed eyes.

Nest Placement: Belted Kingfishers excavate burrows in earthen banks, usually avoiding ones with vegetation (especially trees, whose roots get in the way of digging). They generally

choose a bank near water, but may use a ditch, road cut, landfill, sand pit, or gravel pit far from water. A pair may select a nest site during courtship, usually high in the bank where floodwaters are unlikely to reach. The male probes the bank with his bill, flying back and forth to the female, who calls continuously from a nearby perch.

Nest Description: The male and the female take turns digging the burrow, with males spending about twice as much time digging as females. They usually take 3–7 days to finish it, but may sometimes take up to 3 weeks. The completed burrow extends 3–6 feet into the bank, sloping upward so that rainwater won't collect inside, and ends in an unlined chamber 8–12 inches in diameter and 6–7 inches high. Throughout the breeding season a layer of undigested fish bones, fish scales, and arthropod exoskeletons may accumulate and provide some insulation.

Bird Information

Habitat: Belted Kingfishers need access to bodies of water for feeding, and vertical earthen banks for nesting. They hunt in unclouded water that allows them to see prey below the surface, with perches nearby but minimal vegetation obstructing the water. Some of their most common habitats are streams, rivers, ponds, lakes, estuaries, and calm marine waters. During the breeding season Belted Kingfishers breed throughout most of North America at elevations up to 9,000 feet. They winter in similar habitats, as well as in mangroves, swamps, and brackish lagoons in the Central American parts of their wintering range.

Food: Belted Kingfishers live mostly on a diet of fish including sticklebacks, mummichogs, trout, and stonerollers. They also eat crayfish and may eat other crustaceans, mollusks, insects, amphibians, reptiles, young birds, small mammals, and even berries. A kingfisher looks for prey from a perch that overhangs water, such as a bare branch, telephone wire, or pier piling. When it spots a fish or crayfish near the surface, it takes flight, dives with closed eyes, and grabs the prey in its bill with a pincer motion. Returning with its prize, it pounds the prey against the perch before swallowing it head first. It may also hover above the water instead of searching from a perch. As nestlings, Belted Kingfishers digest the bones and scales they consume, but by the time they leave the nest they begin disgorging pellets of fish skeletons and invertebrate shells.

Behavior: Belted Kingfishers spend most of the year alone until they pair up during the breeding season. Males (and occasionally females) establish territories, which usually conform to the shape of the stream or shoreline. Belted Kingfishers are monogamous within each breeding season but form new pairs every year. The male feeds the female while courting her. Both members of the pair vigorously defend their territory by chasing away intruders while giving loud rattle calls. Kingfishers sometimes nest among Bank Swallows, especially in human-made habitats. Rough-winged Swallows may try to nest in kingfisher burrow entrances, but the kingfishers go in and out so frequently that they drive the swallows away. Predators of kingfishers include hawks, mammals, and snakes. When a Belted Kingfisher suspects an intruder in its territory, it may land on a perch and heave its body up and down with its crest elevated, or fly back and forth along the water, rattling noisily until the intruder leaves. If threatened, it may scream, spread its wings, and raise the patch of white feathers next to each

eye.

Conservation: Belted Kingfishers are common and widespread, but from 1966–2014 their populations declined by an estimated 1.6% per year according to the North American Breeding Bird Survey, resulting in a cumulative decline of 53%. Partners in Flight estimates the global breeding population at 1.7 million, with 70% spending some of the year in the U.S., 49% in Canada, and 19% wintering in Mexico. They rate an 11 out of 20 on the Continental Concern Score and are not on the

Color Pattern: None

Fun Facts

-> The breeding distribution of the Belted Kingfisher is limited in some areas by the availability of suitable nesting sites. Human activity, such as road building and digging gravel pits, has created banks where kingfishers can nest and allowed the expansion of the breeding range.

-> The Belted Kingfisher is one of the few bird species in which the female is more brightly colored than the male. Among the nearly 100 species of kingfishers, the sexes often look alike. In some species the male is more colorful, and in others the female is.

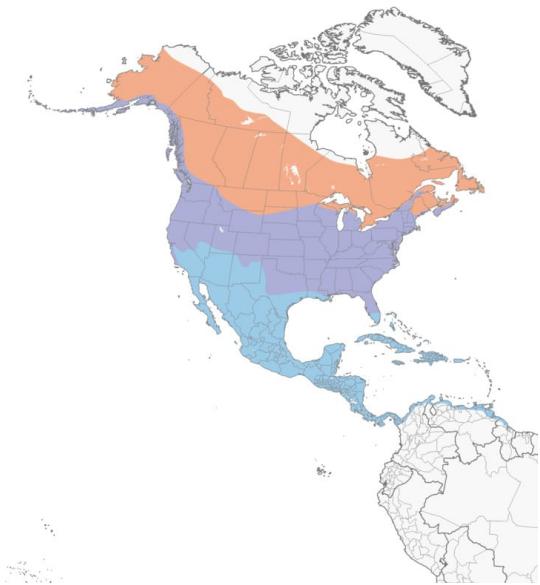
-> During breeding season the Belted Kingfisher pair defends a territory against other kingfishers. A territory along a stream includes just the streambed and the vegetation along it, and averages 0.6 mile long. The nest burrow is usually in a dirt bank near water. The tunnel slopes upward from the entrance, perhaps to keep water from entering the nest. Tunnel length ranges from 1 to 8 feet.

-> As nestlings, Belted Kingfishers have acidic stomachs that help them digest bones, fish scales, and arthropod shells. But by the time they leave the nest, their stomach chemistry apparently changes, and they begin regurgitating pellets which accumulate on the ground around fishing and roosting perches. Scientists can dissect these pellets to learn about the kingfisher's diet without harming or even observing any wild birds.

-> Belted Kingfishers wander widely, sometimes showing up in the Galapagos Islands, Hawaii, the British Isles, the Azores, Iceland, Greenland, and the Netherlands.

-> Pleistocene fossils of Belted Kingfishers (to 600,000 years old) have been unearthed in Florida, Virginia, Tennessee, and Texas. The oldest known fossil in the kingfisher genus is 2 million years old, found in Alachua County, Florida.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Female

Stocky, large-headed bird with a shaggy crest and a thick daggerlike bill. Females are blue-gray with a chestnut belly band and flanks.



Male

Large, crested fish-eating bird. Males are blue-gray with a white collar and blue-gray breast band.



Immature

None



Female

Large, big-headed bird with a hefty bill. Females are more colorful than males with a chestnut belly band and flanks.



Male

Often hovers above water looking for fish. Males have a single blue-gray breast band.



Female

Catches fish by plunging directly into the water from a perch, or by hovering over the water and diving in.



None

None



None

None



None

None



Female

Found near streams, rivers, ponds, lakes, and estuaries.

Red-headed Woodpecker

Bird Characteristics

Scientific Name: *Melanerpes erythrocephalus*

Order: Piciformes

Family Name: Picidae

Conservation Status: Declining

Length: 7.5-9.1 in (19-23 cm)

Weight: 2.0-3.2 oz (56-91 g)

Wingspan: 16.5 in (42 cm)

Basic Description: The gorgeous Red-headed Woodpecker is so boldly patterned it's been called a "flying checkerboard," with an entirely crimson head, a snow-white body, and half white, half inky black wings. These birds don't act quite like most other woodpeckers: they're adept at catching insects in the air, and they eat lots of acorns and beech nuts, often hiding away extra food in tree crevices for later. This magnificent species has declined severely in the past half-century because of habitat loss and changes to its food supply.

Nesting Characteristics

Clutch Size: 3-10 eggs

Number of Broods: 1-2 broods

Egg Length: 1.0 in (2.5 cm)

Egg Width: 0.8 in (1.9 cm)

Incubation Period: 12-14 days

Nestling Period: 24-31 days

Egg Description: Pure white.

Condition at Hatching: Naked, with eyes closed.

Nest Placement: The male selects a site for a nest hole; the female may tap around it, possibly to signal her approval. They nest in dead trees or dead parts of live trees—including pines,

maples, birches, cottonwoods, and oaks—in fields or open forests with little vegetation on the ground. They often use snags that have lost most of their bark, creating a smooth surface that may deter snakes. Red-headed Woodpeckers may also excavate holes in utility poles, live branches, or buildings. They occasionally use natural cavities. Unlike many woodpeckers, Red-headed Woodpeckers often reuse a nest cavity several years in a row.

Nest Description: Both partners help build the nest, though the male does most of the excavation. He often starts with a crack in the wood, digging out a gourd-shaped cavity usually in 12–17 days. The cavity is about 3–6 inches across and 8–16 inches deep. The entrance hole is about 2 inches in diameter.

Bird Information

Habitat: Red-headed Woodpeckers breed in deciduous woodlands with oak or beech, groves of dead or dying trees, river bottoms, burned areas, recent clearings, beaver swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides. During the start of the breeding season they move from forest interiors to forest edges or disturbed areas. Wherever they breed, dead (or partially dead) trees for nest cavities are an important part of their habitat. In the northern part of their winter range, they live in mature stands of forest, especially oak, oak-hickory, maple, ash, and beech. In the southern part, they live in pine and pine-oak. They are somewhat nomadic; in a given location they can be common one year and absent the next.

Food: Red-headed Woodpeckers eat insects, fruits, and seeds. Overall, they eat about one-third animal material (mostly insects) and two-thirds plant material. Their insect diet includes beetles, cicadas, midges, honeybees, and grasshoppers. They are one of the most skillful flycatchers among the North American woodpeckers (their closest competition is the Lewis's Woodpecker). They typically catch aerial insects by spotting them from a perch on a tree limb or fencepost and then flying out to grab them. Red-headed Woodpeckers eat seeds, nuts, corn, berries and other fruits; they sometimes raid bird nests to eat eggs and nestlings; they also eat mice and occasionally adult birds. They forage on the ground and up to 30 feet above the forest floor in summer, whereas in the colder months they forage higher in the trees. In winter Red-headed Woodpeckers catch insects on warm days, but they mostly eat nuts such as acorns, beech nuts, and pecans. Red-headed Woodpeckers cache food by wedging it into crevices in trees or under shingles on houses. They store live grasshoppers, beech nuts, acorns, cherries, and corn, often shifting each item from place to place before retrieving and eating it during the colder months.

Behavior: Red-headed Woodpeckers climb up tree trunks and main limbs like other woodpeckers, often staying still for long periods. They are strong fliers with fairly level flight compared to most woodpeckers. They often catch insects on the wing. Prospective mates play "hide and seek" with each other around dead stumps and telephone poles, and once mated they may stay together for several years. Both males and females perform aggressive bobbing displays by pointing their heads forward, drooping their wings, and holding their tails up at an angle. They are territorial during the breeding season and often aggressive and solitary during

the winter. Red-headed Woodpeckers are quick to pick fights with many other bird species, including the pushy European Starling and the much bigger Pileated Woodpecker. Their predators include snakes, foxes, raccoons, flying squirrels, Cooper's Hawks, Peregrine Falcons, and Eastern Screech-Owls.

Conservation: Red-headed Woodpeckers declined by over 2% per year from 1966 to 2014, resulting in a cumulative decline of 70%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 1.2 million, with 99% spending part of the year in the U.S., and 1% in Canada. The species rates a 13 out of 20 on the Continental Concern Score. Red-headed Woodpecker is on the

Color Pattern: Adults have bright-red heads, white underparts, and black backs with large white patches in the wings, making the lower back appear all white when perched. Immatures have gray-brown heads, and the white wing patches show rows of black spots near the trailing edge.

Fun Facts

-> The Red-headed Woodpecker is one of only four North American woodpeckers known to store food, and it is the only one known to cover the stored food with wood or bark. It hides insects and seeds in cracks in wood, under bark, in fenceposts, and under roof shingles. Grasshoppers are regularly stored alive, but wedged into crevices so tightly that they cannot escape.

-> Red-headed Woodpeckers are fierce defenders of their territory. They may remove the eggs of other species from nests and nest boxes, destroy other birds' nests, and even enter duck nest boxes and puncture the duck eggs.

-> The Red-headed Woodpecker benefited from the chestnut blight and Dutch elm disease outbreaks of the twentieth century. Though these diseases devastated trees they provided many nest sites and foraging opportunities for the woodpeckers.

-> The striking Red-headed Woodpecker has earned a place in human culture. Cherokee Indians used the species as a war symbol, and it makes an appearance in Longfellow's epic poem

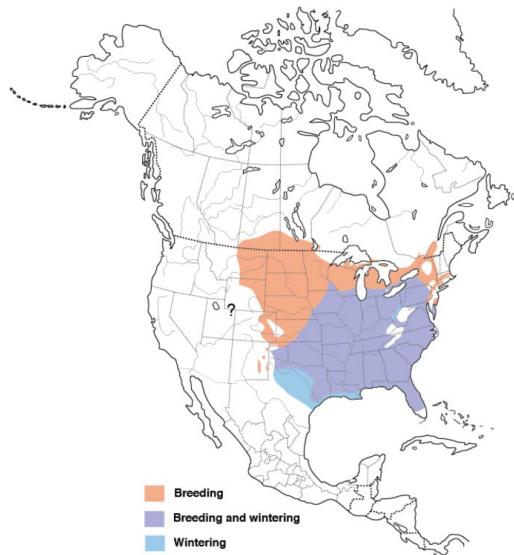
-> The Red-headed Woodpecker has many nicknames, including half-a-shirt, shirt-tail bird, jellycoat, flag bird, and the flying checker-board.

-> Pleistocene-age fossils of Red-headed Woodpeckers—up to 2 million years old—have been unearthed in Florida, Virginia, and Illinois.

-> The Red-headed Woodpecker was the “spark bird” (the bird that starts a person’s interest in birds) of legendary ornithologist Alexander Wilson in the 1700s.

-> The oldest Red-headed Woodpecker on record was banded in 1926 in Michigan and lived to be at least 9 years, 11 months old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Medium-sized woodpecker with a large red head and a big chisel-like bill. The back is black with white wing patches. The belly is white and unstreaked. Sexes alike.



Juvenile

Juveniles have a brown head, a dingy belly, and a blackish brown back.



Adult

Adults have large red heads and a black-and-white body. Like other woodpeckers forages on tree trunks, but also catches insects in air.



Adult
None



Juvenile
None



Juvenile
Juveniles have a brown head, but start acquiring adult coloration in February.



Adult

Found in pine savannas and other open forests with clear understories.
Nests in holes in trees.

Yellow-bellied Sapsucker

Bird Characteristics

Scientific Name: *Sphyrapicus varius*

Order: Piciformes

Family Name: Picidae

Conservation Status: Low Concern

Length: 7.1-8.7 in (18-22 cm)

Weight: 1.5-1.9 oz (43-55 g)

Wingspan: 13.4-15.8 in (34-40 cm)

Basic Description: On a walk through the forest you might spot rows of shallow holes in tree bark. In the East, this is the work of the Yellow-bellied Sapsucker, an enterprising woodpecker that laps up the leaking sap and any trapped insects with its specialized, brush-tipped tongue. Attired sharply in barred black-and-white, with a red cap and (in males) throat, they sit still on tree trunks for long intervals while feeding. To find one, listen for their loud mewing calls or stammered drumming.

Nesting Characteristics

Clutch Size: 4-6 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.0 in (2-2.6 cm)

Egg Width: 0.6-0.7 in (1.6-1.8 cm)

Incubation Period: 10-13 days

Nestling Period: 25-30 days

Egg Description: White.

Condition at Hatching: Bare and blind at birth with pink skin and a gray bill; eyes open at 8 days.

Nest Placement: Yellow-bellied Sapsuckers choose many of the same tree species for nesting

that they use for drilling wells, including aspen, birch, maple, beech, and elm. Trees used for nesting are often alive but are usually infected with a fungus that causes the tree's heartwood or sapwood to decay, making excavation easier. The male chooses the nest tree most of the time. Cavity nests may be reused for several breeding seasons, for up to 7 years.

Nest Description: Yellow-bellied Sapsuckers are cavity nesters. The male does most of the work excavating the cavity over about 2 to 3 weeks. No lining is placed within the nest; the eggs are laid on wood chips left over from the excavation. The entrance hole is small, only about 1.5 inches in diameter, but the cavity itself may be 10 inches deep.

Bird Information

Habitat: In spring and summer, Yellow-bellied Sapsuckers favor young forests and edge habitat, especially areas regenerating from timber harvesting. There they find lots of fast-growing trees ripe for sapwells (and since they can spend half their time or more tending to or feeding from their sapwells, sapsuckers need lots of trees for tapping). So unlike most woodpecker species, sapsuckers don't rely on dead trees for feeding, although they do search for trees with decayed heartwood or dead limbs for their cavity nests. On their wintering grounds, Yellow-bellied Sapsuckers aren't as selective in habitat, as they're found from bottomland hardwood forests to as high as 10,000 feet, though never in pure conifer stands. In winter, Yellow-bellied Sapsuckers can be found in forests of hickory or pines and oaks.

Food: As the name indicates, sapsuckers rely on sap as a main food source. Just like people who tap maple trees to make maple syrup, these birds drill their wells in early spring. Sapsucker wells are neatly organized, with several holes drilled in horizontal rows. The bird first drills narrow, circular wells into the tree's xylem—the inner part of the trunk—to feed on sap moving up to the branches in early spring. Then, after the tree leafs out, the sapsucker begins making shallower, rectangular wells in the phloem, the part of the trunk that carries sap down from the leaves. This sap can be more than 10 percent sugar. These phloem wells must be continually maintained with fresh drilling, so the sap will continue to flow. Sapsuckers tend to choose sick or wounded trees for drilling their wells, and they choose tree species with high sugar concentrations in their sap, such as paper birch, yellow birch, sugar maple, red maple, and hickory. They drill wells for sap throughout the year, on both their breeding and wintering grounds. In addition to sap, Yellow-bellied Sapsuckers also eat insects (mostly ants) and spiders, gleaning them from beneath a tree's bark like other woodpeckers. And at times they perch at the edge of a tree branch and launch after flying insects to capture them in midair, like a flycatcher. Sapsuckers are also attracted to orchards, where they drill wells in the trees and eat fruit.

Behavior: Apart from their behavior at sapwells (see Food section) Yellow-bellied Sapsuckers behave much like other woodpeckers, hitching up and down trees along the bark and leaning away from the trunk, using their stiff tail feathers for support. They fly in a woodpecker's typical up-and-down, bouncing or swooping manner. They spend most of their time at their sapwells, either drilling them, licking sap and any insects caught in it, or chasing off other birds (such as hummingbirds) that may be attracted to the sap. They also perch at the tips of tree branches

when hunting for flying insects, and hop on the ground to forage for ants. In early spring, before mating, sapsucker pairs engage in playful pre-courtship behavior, with one sapsucker chasing the other around tree trunks and branches. Courting birds will land on a tree and face each other with bills and tails raised, throat feathers fluffed out and crest feathers raised, swinging their heads from side to side. This is the same behavior they use when aggressively facing off with sapsuckers of the same sex. Sapsucker mating pairs stay together through the nesting season and raising of young, and often (but not always) reunite for subsequent breeding seasons, though it seems their fidelity may not be to their mate so much as the nesting area or even the particular nest tree.

Conservation: Yellow-bellied Sapsucker numbers slightly increased between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 10 million with 53% spending some part of the year in the U.S., 79% breeding in Canada, and 31% wintering in Mexico. This U.S.-Canada Stewardship species rates a 7 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Yellow-bellied Sapsuckers are mostly black and white with boldly patterned faces. Both sexes have red foreheads, and males also have red throats. Look for a long white stripe along the folded wing. Bold black-and-white stripes curve from the face toward a black chest shield and white or yellowish underparts.

Fun Facts

-> The Yellow-bellied Sapsucker makes two kinds of holes in trees to harvest sap. Round holes extend deep in the tree and are not enlarged. The sapsucker inserts its bill into the hole to probe for sap. Rectangular holes are shallower, and must be maintained continually for the sap to flow. The sapsucker licks the sap from these holes, and eats the cambium of the tree too. New holes usually are made in a line with old holes, or in a new line above the old.

-> The sapwells made by Yellow-bellied Sapsuckers attract hummingbirds, which also feed off the sap flowing from the tree. In some parts of Canada, Ruby-throated Hummingbirds rely so much on sapwells that they time their spring migration with the arrival of sapsuckers. Other birds as well as bats and porcupines also visit sapsucker sapwells.

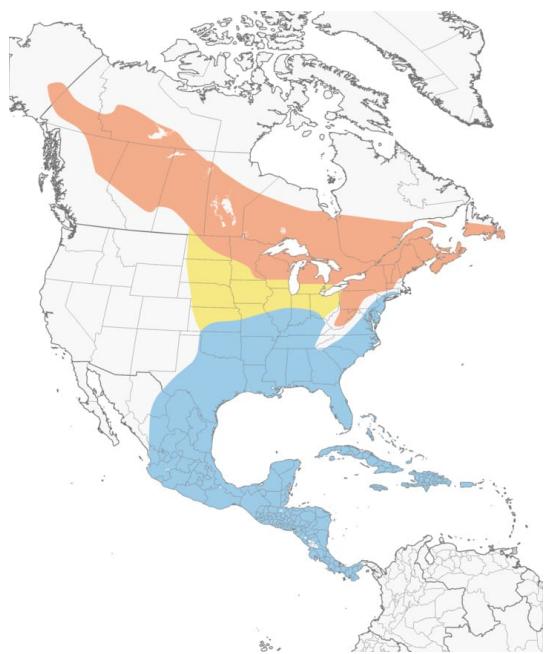
-> Yellow-bellied Sapsuckers have been found drilling sapwells in more than 1,000 species of trees and woody plants, though they have a strong preference for birches and maples.

-> The Yellow-bellied Sapsucker frequently uses human-produced materials to help in its territorial drumming. Street signs and metal chimney flashing amplify the irregular tapping of a territorial sapsucker. The sapsucker seems to suffer no ill effects of whacking its bill on metal, and a bird will return to a favorite sign day after day to pound out its Morse code-like message.

-> The Yellow-bellied Sapsucker is the only woodpecker in eastern North America that is completely migratory. Although a few individuals remain throughout much of the winter in the southern part of the breeding range, most head farther south, going as far south as Panama. Females tend to migrate farther south than do males.

-> The oldest known Yellow-bellied Sapsucker was a male, and at least 7 years, 9 months old. It was banded in New Jersey and found 6 years later in South Carolina.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male

Woodpecker with a stout bill and vertical white wing patches. Males have a red crown and throat.



Female

Sapsuckers have vertical white wing patches along the side of the folded wing. Underparts vary from whitish to pale yellow. Females have a red crown and a white throat.



Juvenile

Juveniles have a brownish wash over their bodies and a finely spotted

crown. Like adults they have vertical white wing patches.



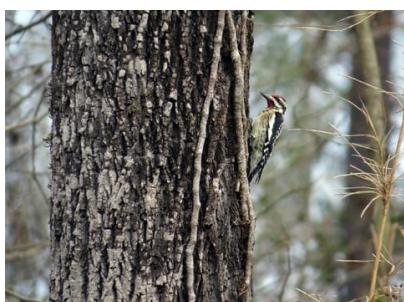
Male

Hitches up and down trees in typical woodpecker fashion. Note the vertical white wing patches and red forehead and throat.



Male

Drills neat rows of shallow holes to access tree sap.



Male

Found in mixed evergreen and deciduous forests with aspen and birch trees.

Downy Woodpecker

Bird Characteristics

Scientific Name: *Dryobates pubescens*

Order: Piciformes

Family Name: Picidae

Conservation Status: Low Concern

Length: 5.5-6.7 in (14-17 cm)

Weight: 0.7-1.0 oz (21-28 g)

Wingspan: 9.8-11.8 in (25-30 cm)

Basic Description: The active little Downy Woodpecker is a familiar sight at backyard feeders and in parks and woodlots, where it joins flocks of chickadees and nuthatches, barely outsizing them. An often acrobatic forager, this black-and-white woodpecker is at home on tiny branches or balancing on slender plant galls, sycamore seed balls, and suet feeders. Downies and their larger lookalike, the Hairy Woodpecker, are one of the first identification challenges that beginning bird watchers master.

Nesting Characteristics

Clutch Size: 3-8 eggs

Number of Broods: 1 brood

Egg Length: 0.8-0.8 in (1.9-2 cm)

Egg Width: 0.6-0.6 in (1.4-1.5 cm)

Incubation Period: 12 days

Nestling Period: 18-21 days

Egg Description: Completely white.

Condition at Hatching: Naked, pink skin, a sharp egg tooth at the tip of bill; eyes closed, clumsy.

Nest Placement: Downy Woodpeckers nest in dead trees or in dead parts of live trees. They typically choose a small stub (averaging around 7 inches in diameter) that leans away from the

vertical, and place the entrance hole on the underside. Nest trees are often deciduous and the wood is often infected with a fungus that softens the wood, making excavating easier.

Nest Description: Both male and female excavate the nest hole, a job that takes 1 to 3 weeks. Entrance holes are round and 1-1.5 inches across. Cavities are 6-12 inches deep and widen toward the bottom to make room for eggs and the incubating bird. The cavity is lined only with wood chips.

Bird Information

Habitat: Open woodlands, particularly deciduous woods and along streams. Also found in created habitats including orchards, parks, and suburbs. You may also find Downy Woodpeckers in open areas, where they can nest along fencerows and feed amid tall weeds.

Food: Downy Woodpeckers eat mainly insects, including beetle larvae that live inside wood or tree bark as well as ants and caterpillars. They eat pest insects including corn earworm, tent caterpillars, bark beetles, and apple borers. About a quarter of their diet consists of plant material, particularly berries, acorns, and grains. Downy Woodpeckers are common feeder birds, eating suet and black oil sunflower seeds and occasionally drinking from hummingbird feeders.

Behavior: An active woodpecker that moves quickly over tree trunks, branches, and stems of grasses and wildflowers, characteristically leaning against its stiffened tail feathers for support. Downy Woodpeckers move horizontally and downwards on trees much more readily than most other woodpeckers. You may also see them perched atop tall weeds such as goldenrod in late summer, hammering away at a plant gall to get at the larva inside. Occasionally hops on the ground for food. Downy Woodpeckers have the undulating flight pattern typical of many woodpecker species, alternating quick wingbeats with folding the wings against the body. When having a dispute with another bird, Downy Woodpeckers fan their tails, raise their head feathers, and jerk their beaks from side to side. In spring you may see courtship displays in which males and females fly between trees with slow, fluttering wingbeats that look almost butterfly-like.

Conservation: Downy Woodpeckers are numerous and their populations were stable between 1966 and 2015 according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 14 million, with 79% living in the U.S. and 21% in Canada. The species rates an 7 out of 20 on the Continental Concern Score. Downy Woodpecker is not on the

Color Pattern: Downy Woodpeckers give a checkered black-and-white impression. The black upperparts are checked with white on the wings, the head is boldly striped, and the back has a broad white stripe down the center. Males have a small red patch on the back of the head. The outer tail feathers are typically white with a few black spots.

Fun Facts

-> In winter Downy Woodpeckers are frequent members of mixed species flocks. Advantages of flocking include having to spend less time watching out for predators and better luck finding food from having other birds around.

-> Male and female Downy Woodpeckers divide up where they look for food in winter. Males feed more on small branches and weed stems, and females feed on larger branches and trunks. Males keep females from foraging in the more productive spots. When researchers have removed males from a woodlot, females have responded by feeding along smaller branches.

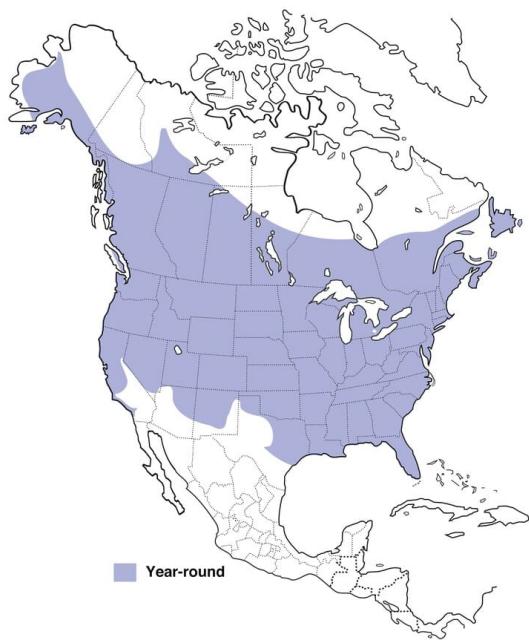
-> The Downy Woodpecker eats foods that larger woodpeckers cannot reach, such as insects living on or in the stems of weeds. You may see them hammering at goldenrod galls to extract the fly larvae inside.

-> Woodpeckers don't sing songs, but they drum loudly against pieces of wood or metal to achieve the same effect. People sometimes think this drumming is part of the birds' feeding habits, but it isn't. In fact, feeding birds make surprisingly little noise even when they're digging vigorously into wood.

-> Downy Woodpeckers have been discovered nesting inside the walls of buildings.

-> The oldest known Downy Woodpecker was a male and at least 11 years, 11 months old when he was recaptured and rereleased in 1996 during banding operations in California. He had been banded in the same state in 1985.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male (Eastern)

Small with a short bill. White below, upperparts mostly black with a white back and bold white spots in the wings. Head striped black and white, with a red nape. Note spotting on white outer tail feathers.



Male (Pacific)

Birds along the Pacific coast are dingy brownish-gray below.



Female (Eastern)

None



Female (Pacific)

Birds along the Pacific coast are dingy brownish-gray below. Females lack the red spot on the nape.



Juvenile

Juveniles have red feathering on the cap.



Female (Pacific)

White outer tail feathers with some black spots.



Male (Eastern)

Will sometimes perch on branches like a songbird, and occurs in a wide variety of wooded habitats.



Female (Eastern)
Nests in cavities.



Habitat
None

Northern Flicker

Bird Characteristics

Scientific Name: *Colaptes auratus*

Order: Piciformes

Family Name: Picidae

Conservation Status: Low Concern

Length: 11.0-12.2 in (28-31 cm)

Weight: 3.9-5.6 oz (110-160 g)

Wingspan: 16.5-20.1 in (42-51 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 5-8 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.4 in (1.9-3.6 cm)

Egg Width: 0.6-1.3 in (1.6-3.3 cm)

Incubation Period: 11-13 days

Nestling Period: 24-27 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Northern Flickers usually excavate nest holes in dead or diseased tree trunks or large branches. In northern North America look for nests in trembling aspens, which are susceptible to a heartrot that makes for easy excavation. Unlike many woodpeckers, flickers often reuse cavities that they or another species excavated in a previous year. Nests are generally placed 6-15 feet off the ground, but on rare occasions can be over 100 feet high. Northern Flickers have been known to nest in old burrows of Belted Kingfishers or Bank Swallows.

Nest Description: Both sexes help with nest excavation. The entrance hole is about 3 inches in diameter, and the cavity is 13-16 inches deep. The cavity widens at bottom to make room for eggs and the incubating adult. Inside, the cavity is bare except for a bed of wood chips for the eggs and chicks to rest on. Once nestlings are about 17 days old, they begin clinging to the cavity wall rather than lying on the floor.

Bird Information

Habitat: Look for Northern Flickers in woodlands, forest edges, and open fields with scattered trees, as well as city parks and suburbs. In the western mountains they occur in most forest types, including burned forests, all the way up to treeline. You can also find them in wet areas such as streamside woods, flooded swamps, and marsh edges.

Food: Northern Flickers eat mainly insects, especially ants and beetles that they gather from the ground. They also eat fruits and seeds, especially in winter. Flickers often go after ants underground (where the nutritious larvae live), hammering at the soil the way other woodpeckers drill into wood. They've been seen breaking into cow patties to eat insects living within. Their tongues can dart out 2 inches beyond the end of the bill to snare prey. Other invertebrates eaten include flies, butterflies, moths, and snails. Flickers also eat berries and seeds, especially in winter, including poison oak and ivy, dogwood, sumac, wild cherry and grape, bayberries, hackberries, and elderberries, and sunflower and thistle seeds.

Behavior: Northern Flickers don't act like typical woodpeckers. They mainly forage on the ground, sometimes among sparrows and blackbirds. When flushed, flickers often perch erect on thin horizontal branches rather than hitching up or around a tree trunk. Flickers do fly like most woodpeckers do, rising and falling smoothly as they intersperse periods of flapping with gliding. Early in spring and summer, rivals may face off in a display sometimes called a "fencing duel," while a prospective mate looks on. Two birds face each other on a branch, bills pointed upward, and bob their heads in time while drawing a loop or figure-eight pattern in the air, often giving rhythmic

Conservation: Northern Flickers are widespread and common, but numbers decreased by almost 1.5% per year between 1966 and 2012, resulting in a cumulative decline of 49%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 9 million with 78% spending some part of the year in the U.S., 42% in Canada, and 8% in Mexico. They rate a 10 out of 20 on the Continental Concern Score and are listed as a Common Bird in Steep Decline. They are not listed on the

Color Pattern: None

Fun Facts

-> Although it can climb up the trunks of trees and hammer on wood like other woodpeckers, the Northern Flicker prefers to find food on the ground. Ants are its main food, and the flicker digs in the dirt to find them. It uses its long barbed tongue to lap up the ants.

-> The red-shafted and yellow-shafted forms of the Northern Flicker formerly were considered different species. The two forms hybridize extensively in a wide zone from Alaska to the panhandle of Texas. A hybrid often has some traits from each of the two forms and some traits that are intermediate between them. The Red-shafted Flicker also hybridizes with the Gilded Flicker, but less frequently.

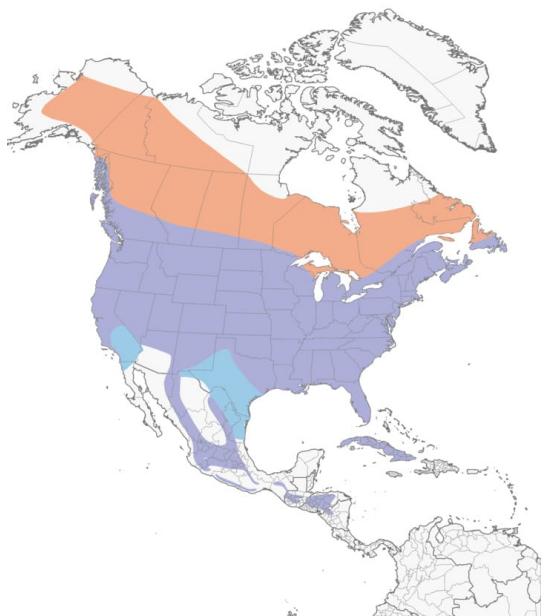
-> The Northern Flicker is one of the few North American woodpeckers that is strongly migratory. Flickers in the northern parts of their range move south for the winter, although a few individuals often stay rather far north.

-> Northern Flickers generally nest in holes in trees like other woodpeckers. Occasionally, they've been found nesting in old, earthen burrows vacated by Belted Kingfishers or Bank Swallows.

-> Like most woodpeckers, Northern Flickers drum on objects as a form of communication and territory defense. In such cases, the object is to make as loud a noise as possible, and that's why woodpeckers sometimes drum on metal objects. One Northern Flicker in Wyoming could be heard drumming on an abandoned tractor from a half-mile away.

-> The oldest known yellow-shafted form of the Northern Flicker was a male and was at least 9 years, 2 months old when he was found in Florida. The oldest red-shafted form of Northern Flicker lived to be at least 8 years, 9 months old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male (Yellow-shafted)

Large woodpecker with a black bib and spotted belly. Males in the East have a red nape, a black whisker, and yellow shafts on the flight and tail feathers.



Male (Red-shafted)

Males in the West have a red whisker while those in the East have a black whisker. The upperparts are mostly brownish-gray with black barring. White rump sometimes visible while perched.



Female (Yellow-shafted)

Females have a peachy-brown face, a gray crown and nape, and a red spot on the nape. Buffy underparts densely spotted with black.



Female (Red-shafted)
None



Female (Yellow-shafted)
In flight note the white rump patch. Birds in the East flash yellow shafts on the flight feathers and tail.



Male (Red-shafted)
In flight, its white rump contrasts with the rest of the plumage. Individuals in the West have red shafts to the flight feathers and tail that are usually obvious in flight.



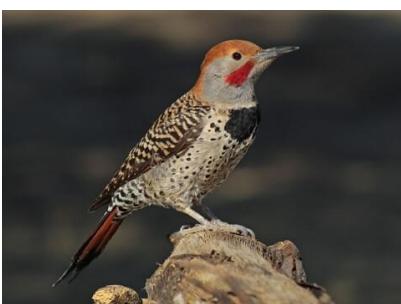
Male (Yellow-shafted x Red-shafted intergrade)

Intergrade individuals usually have a mixture of the plumage markings of Red-shafted and Yellow-shafted birds and an orange color in the flight feathers.



Male (Yellow-shafted)

Shows a bold white rump in flight.



Male (Guatemalan)

Residents in Guatemala have a brown crown and whisker stripe. Red undertail is visible from some angles.



Female (Guatemalan)

Residents in Guatemala have a brown crown and whisker stripe. Red undertail is visible from some angles.



Male (Red-shafted)

The red underside of the tail can be obvious from certain angles on perched birds. Note the red whisker on males in the West.



Male (Yellow-shafted)

Regularly forages on the ground.



Female (Red-shafted)

Found in a wide variety of both open and wooded habitats.

Pileated Woodpecker

Bird Characteristics

Scientific Name: *Dryocopus pileatus*

Order: Piciformes

Family Name: Picidae

Conservation Status: Low Concern

Length: 15.8-19.3 in (40-49 cm)

Weight: 8.8-12.3 oz (250-350 g)

Wingspan: 26.0-29.5 in (66-75 cm)

Basic Description: The Pileated Woodpecker is one of the biggest, most striking forest birds on the continent. It's nearly the size of a crow, black with bold white stripes down the neck and a flaming-red crest. Look (and listen) for Pileated Woodpeckers whacking at dead trees and fallen logs in search of their main prey, carpenter ants, leaving unique rectangular holes in the wood. The nest holes these birds make offer crucial shelter to many species including swifts, owls, ducks, bats, and pine martens.

Nesting Characteristics

Bird Information

Habitat: Pileated Woodpeckers live in mature deciduous or mixed deciduous-coniferous woodlands of nearly every type, from tall western hemlock stands of the Northwest to beech and maple forests in New England and cypress swamps of the Southeast. They can also be found in younger forests that have scattered, large, dead trees or a ready supply of decaying, downed wood. Throughout their range, Pileated Woodpeckers can also be found in suburban areas with large trees and patches of woodland.

Food: The Pileated Woodpecker's primary food is carpenter ants, supplemented by other ants, woodboring beetle larvae, termites, and other insects such as flies, spruce budworm, caterpillars, cockroaches, and grasshoppers. They also eat wild fruits and nuts, including greenbrier, hackberry, sassafrass, blackberries, sumac berries, poison ivy, holly, dogwood, persimmon, and elderberry. In some diet studies, ants constituted 40 percent of the diet, and up to 97 percent in some individuals. Occasionally, Pileated Woodpeckers visit backyard bird feeders for seeds or suet.

Behavior: undefined

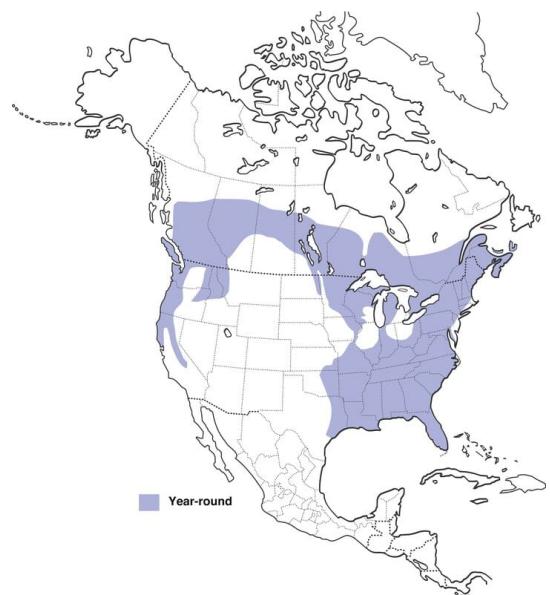
Conservation:

Color Pattern: Pileated Woodpeckers are mostly black with white stripes on the face and neck and a flaming-red crest. Males have a red stripe on the cheek. In flight, the bird reveals extensive white underwings and small white crescents on the upper side, at the bases of the primaries.

Fun Facts

- > The Pileated Woodpecker digs characteristically rectangular holes in trees to find ants. These excavations can be so broad and deep that they can cause small trees to break in half.
- > The feeding excavations of a Pileated Woodpecker are so extensive that they often attract other birds. Other woodpeckers, as well as House Wrens, may come and feed there.
- > The Pileated Woodpecker prefers large trees for nesting. In young forests, it will use any large trees remaining from before the forest was cut. Because these trees are larger than the rest of the forest, they present a lightning hazard to the nesting birds.
- > A Pileated Woodpecker pair stays together on its territory all year round. It will defend the territory in all seasons, but will tolerate new arrivals during the winter.
- > The oldest known Pileated Woodpecker was a male, and at least 12 years, 11 months old when he was recaptured and rereleased during banding operations in Maryland.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Female

Large woodpecker with a heavy bill. Females have a red crest like the males but don't have the red cheek stripe.



Male

Large woodpecker with white stripes on the face continuing down the neck and a red crest. Males have a bright red crest and a red stripe on the cheek.



Female

In flight shows white underwings and a white stripe in the upperwings. Flies

with a distinctive, vaguely crowlike style.



Male

Sometimes raises wings in display or aggression, showing white underwings.



Male and juvenile

Excavates holes in large trees for nesting.



Male

Excavates large holes, usually oblong in shape.



Male

Typically found in wooded areas with at least some large trees.

Olive-sided Flycatcher

Bird Characteristics

Scientific Name: *Contopus cooperi*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Declining

Length: 7.1-7.9 in (18-20 cm)

Weight: 1.0-1.4 oz (28-40.4 g)

Wingspan: 12.4-13.6 in (31.5-34.5 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1 brood

Egg Length: 0.8-0.9 in (2-2.4 cm)

Egg Width: 0.6-0.7 in (1.5-1.7 cm)

Incubation Period: 15-19 days

Nestling Period: 15-19 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: As is true of many flycatchers, the female chooses the nest site, but males sometimes participate. Nests are usually on a horizontal branch, well away from the trunk and toward the tip. Nests in the northern and eastern parts of range tend to be lower, those in the West higher in the tree. The lowest nest on record was 5 feet off the ground, the highest 197 feet. Most nests are placed in coniferous trees (sometimes in burned, dead conifers), but nests in aspen, willow, oak, sycamore, alder, cottonwood, elm, and locust are also documented.

Nest Description: The nest is a loose, bulky but small cup with a foundation of twigs and rootlets, with a lining of grasses, finer rootlets, lichens, and conifer needles. The outside diameter of the nest is about 4.6 inches, the inside diameter 2.8 inches.

Bird Information

Habitat: Olive-sided Flycatchers breed mostly in the boreal forest and in western coniferous forests, from sea level to over 10,000 feet elevation in some parts of the Rockies. Here they are found in forests of spruce, fir, Douglas-fir, hemlock, western redcedar, and tamarack or larch. In southern California and northern Baja California (home to subspecies)

Food: Olive-sided Flycatchers eat flying insects, most of which they capture in flight, including flying ants, wasps, bees, dragonflies, grasshoppers, beetles, moths, and flies. They may occasionally eat fruit (berries) during migration or during the nonbreeding season, as other large flycatchers do, but observations are lacking.

Behavior: Pewees (in the genus

Conservation: Olive-sided Flycatcher populations are in decline. According to

Color Pattern: None

Fun Facts

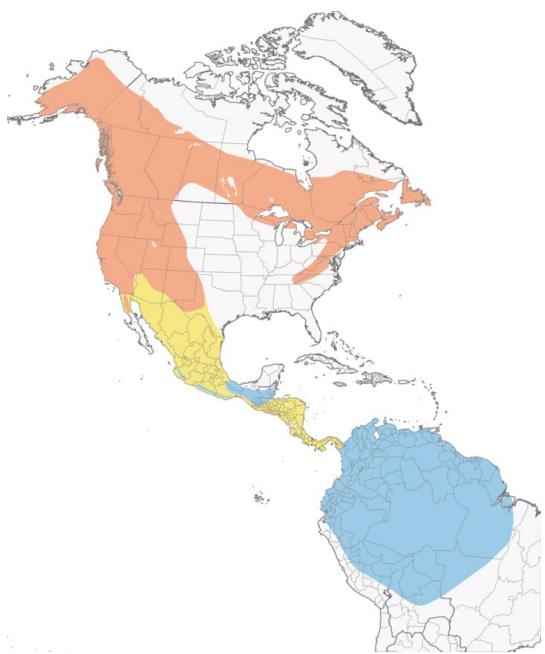
-> Of all the flycatcher species that breed in the United States, Olive-sided Flycatcher has the longest migration, with some migrating between central Alaska and Bolivia, a distance of 7,000 miles.

-> Olive-sided Flycatchers are frequently found in burned forests. The opened area and many dead trees (for perches) may help it to catch flying insects, which can be abundant after forest fires.

-> Olive-sided Flycatchers defend their nests aggressively. A pair was observed to knock a red squirrel off a nest limb and chase it away.

-> The oldest recorded Olive-sided Flycatcher was at least 11 years, 1 month old when it was recaptured and re-released during banding operations in California.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Large, upright-perching flycatcher. From the front it looks like it is wearing a vest. Sexes similar.

None



Head feathers are sometimes raised giving the head a peaked look.

None



Large, elongated, upright-perching flycatcher with a "vested" look—gray sides contrast with white stripe down the belly. Head sometimes looks peaked at the rear.

None



None
None



Perches prominently often on dead branches, especially snags in recently burned forests.

None

Eastern Phoebe

Bird Characteristics

Scientific Name: *Sayornis phoebe*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Low Concern

Length: 5.5-6.7 in (14-17 cm)

Weight: 0.6-0.7 oz (16-21 g)

Wingspan: 10.2-11.0 in (26-28 cm)

Basic Description: One of our most familiar eastern flycatchers, the Eastern Phoebe's raspy "phoebe" call is a frequent sound around yards and farms in spring and summer. These brown-and-white songbirds sit upright and wag their tails from prominent, low perches. They typically place their mud-and-grass nests in protected nooks on bridges, barns, and houses, which adds to the species' familiarity to humans. Hardy birds, Eastern Phoebes winter farther north than most other flycatchers and are one of the earliest returning migrants in spring.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.8 in (1.8-2.1 cm)

Egg Width: 0.6-0.7 in (1.4-1.7 cm)

Incubation Period: 15-16 days

Nestling Period: 16-20 days

Egg Description: White, sometimes speckled with reddish brown

Condition at Hatching: Helpless, eyes, closed, with sparse gray down.

Nest Placement: Eastern Phoebes build nests in niches or under overhangs, where the young will be protected from the elements and fairly safe from predators. They avoid damp crevices

and seem to prefer the nests to be close to the roof of whatever alcove they have chosen. Nests are typically less than 15 feet from the ground (in a few cases they have been built below ground level, in a well or cistern).

Nest Description: Only the female builds the nest, often while the male accompanies her. She constructs the nest from mud, moss, and leaves mixed with grass stems and animal hair. The nest may be placed on a firm foundation or it may adhere to a vertical wall using a surface irregularity as a partial foundation. The female may at first need to hover in place while she adds enough of a mud base to perch on. Nests can take 5–14 days to build and are about 5 inches across when finished. The nest cup is 2.5 inches across and 2 inches deep. Unlike most birds, nests are often reused in subsequent years—and sometimes used by Barn Swallows in some years.

Bird Information

Habitat: Eastern Phoebe breed in wooded areas (particularly near water sources) that provide nesting sites—typically human-built structures such as eaves of buildings, overhanging decks, bridges, and culverts. Before these sites were common, phoebe nested on bare rock outcrops and still do occasionally. They seem to choose nest sites with woody understory vegetation nearby, possibly to make the nest site less visible or to provide perches near the nest for the adult. On migration they use wooded habitats and show somewhat less of an association with water. During winter, Eastern Phoebe occurs in deciduous woods, more often near woodland edges and openings than in unbroken forests.

Food: Flying insects make up the majority of the Eastern Phoebe's diet. Common prey include wasps, beetles, dragonflies, butterflies and moths, flies, midges, and cicadas; they also eat spiders, ticks, and millipedes, as well as occasional small fruits or seeds.

Behavior: Eastern Phoebe sit alertly on low perches, often twitching their tails as they look out for flying insects. When they spot one, they abruptly leave their perch on quick wingbeats, and chase down their prey in a quick sally—often returning to the same or a nearby perch. Less often, they hover to pick insects or seeds from foliage. Phoebe rarely occur in groups, and even mated pairs spend little time together. Males sing their two-parted, raspy song throughout the spring and aggressively defend their territory from others of their Eastern Phoebe, though they tolerate other species. Both sexes, but particularly the female, attempt to defend the nest against such predators as snakes, jays, crows, chipmunks, mice, and House Wrens.

Conservation: Eastern Phoebe populations were stable overall between 1966 and 2015, with small declines in Canada, and small increases in the U.S., according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 32 million with 76% spending some part of the year in the U.S., 33% wintering in Mexico, and 24% breeding in Canada. The species rates an 8 out of 20 on the Continental Concern Score. Eastern Phoebe is not on the

Color Pattern: The Eastern Phoebe is brownish-gray above and off-white below, with a dusky wash to the sides of the breast. The head is typically the darkest part of the upperparts. Birds in fresh fall plumage show faint yellow on the belly and whitish edging on the folded wing feathers.

Fun Facts

-> In 1804, the Eastern Phoebe became the first banded bird in North America. John James Audubon attached silvered thread to an Eastern Phoebe's leg to track its return in successive years.

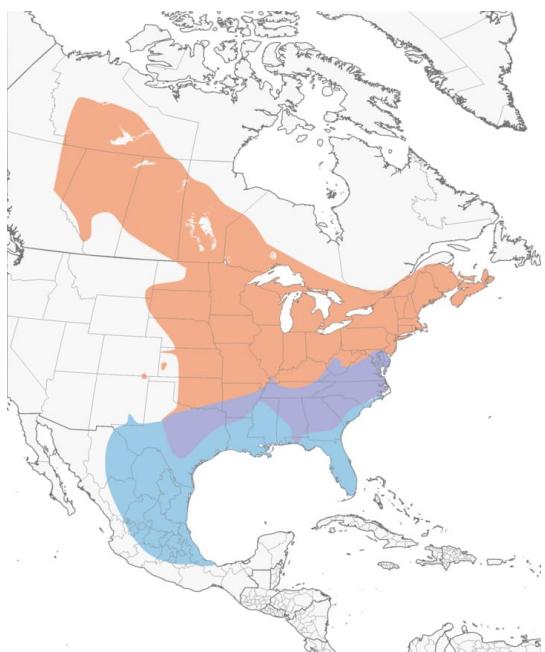
-> The use of buildings and bridges for nest sites has allowed the Eastern Phoebe to tolerate the landscape changes made by humans and even expand its range. However, it still uses natural nest sites when they are available.

-> Unlike most birds, Eastern Phoebes often reuse nests in subsequent years—and sometimes Barn Swallows use them in between. In turn, Eastern Phoebes may renovate and use old American Robin or Barn Swallow nests themselves.

-> The Eastern Phoebe is a loner, rarely coming in contact with other phoebes. Even members of a mated pair do not spend much time together. They may roost together early in pair formation, but even during egg laying the female frequently chases the male away from her.

-> The oldest known Eastern Phoebe was at least 10 years, 4 months old. It had been banded in Iowa in 1979, and was found in 1989 in Alberta.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Plump songbird with a large head that often looks peaked. Grayish brown above with a darker head and whitish below.



Adult

Plump songbird with a large head that often looks peaked and a medium length squared tail. Grayish brown above and whitish below.



Juvenile

Juveniles are similar to adults, but have variable reddish-brown wingbars and a paler head.



Adult

Plump songbird that often has a peaked head. Grayish brown above and whitish below with a smudgy breast.



Adult

Frequently wags tail down and up when perched.



Adult

Found in open woods such as yards, parks, woodlands, and woodland edges.



Adult

Build nests in niches or under overhangs, where the young will be protected from the elements.

Vermilion Flycatcher

Bird Characteristics

Scientific Name: *Pyrocephalus rubinus*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Low Concern

Length: 4.8-5.4 in (12.3-13.8 cm)

Weight: 0.4-0.5 oz (11.3-14.8 g)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-4 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.6-1.9 cm)

Egg Width: 0.4-0.6 in (1.1-1.4 cm)

Incubation Period: 13-15 days

Nestling Period: 14-16 days

Egg Description: White or creamy, with bold dark blotches and small lighter spots.

Condition at Hatching: Helpless with sparse whitish down, back skin blackish.

Nest Placement: Typically nests in trees along stream corridors. The nest is placed in an inconspicuous fork along a horizontal branch that is free of leaves, between about 8 and 20 feet off the ground.

Nest Description: A shallow, somewhat loosely constructed cup of small twigs, grasses and empty cocoons bound together with spiderweb. It is often decorated (camouflaged) with small bits of lichen.

Bird Information

Habitat: In all seasons, the Vermilion Flycatcher can be found in any open country in the American Southwest, including arid scrublands, farmlands, deserts, parks, and canyon mouths. They are especially reliant on stream corridors within the scrub ecosystem, in areas where willow, sycamore, cottonwood, mesquite, and other bottomland trees grow. South of the U.S. they occur in similar open, shrubby country in tropical lowlands and to as high as 10,000 feet elevation.

Food: Vermilion Flycatchers eat mostly flying insects. They capture insects on the wing by flying suddenly out from an exposed perch. These foraging flights are often short and direct, and often involve a swift swoop that takes them in a looping circle out and back to the same perch. Typically feeds within about 10 feet of the ground. Carries larger prey such as grasshoppers and butterflies back to the perch, whacks them against the perch to subdue and soften them before eating. Other prey include honeybees, beetles, and crickets.

Behavior: Males aggressively guard their territory from other Vermilion Flycatchers as well as other birds using a warning posture with tail and crest erect. While on territory, males perform an elaborate flight display to attract females in which they rise 60–100 feet above surrounding vegetation, alternately gliding and flapping with shallow wingbeats while singing a twittering flight song. If interested, the female then joins the male as they inspect potential nest sites, often with the male bringing insects to the female. Pairs are socially monogamous, though mating outside the pair (extra-pair copulation) is not uncommon. The female incubates the eggs while the male brings food, and both parents feed the chicks. When not breeding, Vermilion Flycatchers are typically solitary birds, though small flocks of males may form in the winter.

Conservation: Vermilion Flycatchers are common in most of their range. In the small portion of their range that includes the U.S., numbers have been roughly stable between 1969 and 2015, according to the

Color Pattern: None

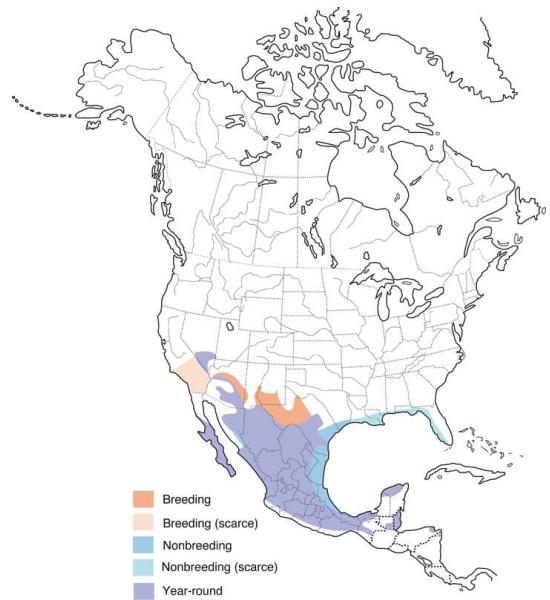
Fun Facts

- > The Vermilion Flycatcher's genus name,
- > There are 12 subspecies of Vermilion Flycatcher found from the southwestern U.S. all the way south to northern Chile. Some of the birds in the southernmost part of their range are ashy gray-brown overall, with only a few red feathers on the head.
- > When male Vermilion Flycatchers court females, they bring gifts: often a butterfly or other flashy insect.
- > Like many members of the Tyrannidae, or "tyrant flycatcher" family, Vermilion Flycatchers are prone to wander. There are records of this species way out of their normal range, as far

afield as Minnesota, Maryland, and British Columbia.

-> The oldest recorded Vermilion Flycatcher was a male at least 4 years, 6 months old when he was collected in Mexico, the same country where he had been banded.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Medium-sized flycatcher with a short tail. Adult males are brilliant red and black.



Adult female

Compact flycatcher. Females are brownish above with a white breast and reddish belly and undertail coverts.



Immature female

Immature females are duller than adults with a peachy belly and a streaky breast.



Immature male

Immature males have variable patches of red feathers on the head and breast.



Juvenile

Compact flycatcher. Juveniles are brown above with a heavily streaked belly and pale peach undertail coverts. Individuals in northern Chile are browner than birds in North America.



Adult male

Medium-sized flycatcher with a shorter tail. Adult males are brilliant red and black.



Adult male
None



Adult female
Compact flycatcher. Females are brownish above with a white breast and reddish belly and undertail coverts.



Adult male
Back and breast color varies slightly throughout their range from brownish black to black and from red to red-orange.



Adult male (obscurus Group)
Some individuals from Lima, Peru, south to northern Chile are brown

overall with a pale pinkish lower belly.



Adult male

Found in scrub, desert, cultivated lands, and riparian woodlands.

Great Crested Flycatcher

Bird Characteristics

Scientific Name: *Myiarchus crinitus*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Low Concern

Length: 6.7-8.3 in (17-21 cm)

Weight: 0.9-1.4 oz (27-40 g)

Wingspan: 13.4 in (34 cm)

Basic Description: A large, assertive flycatcher with rich reddish-brown accents and a lemon-yellow belly, the Great Crested Flycatcher is a common bird of Eastern woodlands. Its habit of hunting high in the canopy means it's not particularly conspicuous—until you learn its very distinctive call, an emphatic rising whistle. These flycatchers swoop after flying insects and may crash into foliage in pursuit of leaf-crawling prey. They are the only Eastern flycatchers that nest in cavities, and this means they sometimes make use of nest boxes.

Nesting Characteristics

Clutch Size: 4-8 eggs

Egg Length: 0.8-0.9 in (2.1-2.4 cm)

Egg Width: 0.6-0.7 in (1.5-1.8 cm)

Incubation Period: 13-15 days

Nestling Period: 13-15 days

Egg Description: Creamy white to pinkish buff splotched with brown, purple, or lavender.

Condition at Hatching: Helpless, sightless chicks are born naked, but soon sport a grayish down.

Nest Placement: Great Crested Flycatchers nest in cavities. They favor natural cavities in dead trees, but will use large, abandoned woodpecker holes, nesting boxes, hollow posts, and even buckets, pipes, cans, and boxes of appropriate size. Both sexes inspect potential nesting

cavities anywhere from two to 70 feet from the ground.

Nest Description: The female does most if not all of the nest-building, while the male keeps her close company. If the cavity is much deeper than 12 inches, she first backfills it with debris before building her nest in the back of the remaining space. She uses a wide variety of materials, from grasses, leaves, twigs, and stems, to hair and fur, snail and sea shells, feathers, bark, moss, cellophane, onion skin, paper, cloth, eggshells, and, quite commonly, shed snakeskin. The inner cup is usually 3 to 3.5 inches across, and 1.5 to 2 inches deep. The female may continue to add fine materials, like feathers, to the nest during egg-laying, incubation, and brooding.

Bird Information

Habitat: Great Crested Flycatchers prefer breeding territories in open broadleaf or mixed woodlands and at the edges of clearings rather than in dense forests. They avoid the northern coniferous (boreal) forests of Canada. Among woodlands, they favor edge habitats in second-growth forests, wooded hedgerows, isolated woody patches, and selectively cut forests over continuous, closed-canopy forests. Dead snags and dying trees are important sources of the cavities they need for nesting. They tolerate human presence and will search out cavities in old orchards and in woody urban areas like parks, cemeteries, and golf courses. If there are enough trees, they will claim territories in pastures, along streams and rivers, and in swamps and wetlands. On their winter grounds, they extend their tolerance of wooded habitats to shrubby clearings, clearings with scattered trees, and semiarid forests.

Food: Great Crested Flycatchers eat mainly insects and other invertebrates, as well as small berries and other fruits. They eat butterflies and moths, beetles, grasshoppers and crickets, bugs, bees and wasps, flies, other insects, and spiders. These they'll take from the air, the surfaces of leaves and branches, off the ground, from haystacks, from bark crevices, or from crannies in such human-made structures as fence posts and rails. Plant food includes small whole berries, the pits of which are regurgitated after the berries are eaten whole. Dragonflies, moths, and butterflies are offered to chicks whole, wings and all, but if they're rejected, the parents crush the insects and re-offer them.

Behavior: Great Crested Flycatchers hunt from perches in the treetops, peering in all directions with a characteristic bobbing head. They're swift, agile fliers and persistent in chasing flying prey; a first miss doesn't end the chase. If they've spotted prey sitting on a leaf top, a twig, tree trunk, or a weed head, they swoop down from their perch, then brake abruptly to hover just long enough to snatch the prey and fly off. Sometimes the braking is minimal, and they crash into foliage with little slowing to snap up the prey before continuing along their flight path. They'll drop down to take prey on the ground, too. Males swoop down at females from high perches to solicit mating. If the female retreats to a cavity, he hovers before returning to a perch and repeating the maneuver for another try. He guards his mate particularly during nest-building and egg-laying. Intruding neighbors are never ignored. If calls don't dissuade the intruder, a raised crest, a forward-leaning posture accompanied by a nodding or pumping head. A snapping bill and rapid chase may follow. If still undeterred, the intruder faces attack,

grappling, and feather pulling. Eggs (and sometimes the incubating females) are vulnerable to predation by snakes. Squirrels also often raid their nests. In spite of their preference for edge habitats, Great Crested Flycatchers are only infrequently parasitized by Brown-headed Cowbirds, probably both because they nest in cavities and because they are very aggressive toward intruders.

Conservation: Great Crested Flycatcher populations have remained stable across their breeding range from 1966 to 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population is 6.7 million, with 91% spending part of the year in the U.S., 23% in Mexico, and 9% breeding in Canada. They rate an 8 out of 20 on the Continental Concern Score. Great Crested Flycatcher is not on the

Color Pattern: Great Crested Flycatchers are reddish-brown above, with a brownish-gray head, gray throat and breast, and bright lemon-yellow belly. The brown upperparts are highlighted by rufous-orange flashes in the primaries and in the tail feathers. The black bill sometimes shows a bit of pale color at the base.

Fun Facts

-> Great Crested Flycatchers weave shed snakeskin into their nest. Where it's readily available, as in Florida, nearly every nest contains snakeskin. They also seem to look for flimsy, crinkly nest materials—they've also used onion skins, cellophane, or plastic wrappers.

-> Though they're flycatchers, these birds also eat a fair amount of fruit. Instead of picking at the flesh of small fruit, Great Crested Flycatchers swallow the fruit whole and regurgitate the pits, sometimes several at a time.

-> Where other insect-snatching birds like Eastern Wood-Pewees, Least Flycatchers, Acadian Flycatchers, or Eastern Phoebes share their habitat, Great Crested Flycatchers exploit a niche higher in canopy to avoid direct competition for food. High up, they swoop out farther for prey, using multiple dead-branch perches.

-> When the male sings, it's to be heard, not to see or be seen. He picks a singing perch within the canopy, well away from branch ends. In contrast, hunting perches require an unobstructed view of potential prey and unobstructed flight paths to them, whether the prey are in the air or on leaves or twigs. Both sexes favor hunting from dead branches with a backdrop of foliage for cover.

-> Nestlings rarely return to breed near where they were born. But once yearlings have chosen a breeding area, they often return to that same area year after year. Some pairs re-establish their bond from the previous season and may even reuse the same nesting cavity.

-> Great Crested Flycatchers live along the edges between habitats; they don't need big stretches of unbroken forest canopy to thrive. That means that logging and development practices that increase forest fragmentation actually work to their advantage, in sharp contrast to birds that dwell deep in the forest.

-> The Great Crested Flycatcher is a bird of the treetops. It spends very little time on the ground, and does not hop or walk. It prefers to fly from place to place on the ground rather than walk.

-> The Great Crested Flycatcher makes the same "wee-eep" calls on the wintering grounds that it makes in summer.

-> The oldest recorded Great Crested Flycatcher was at least 14 years, 11 months old when it was found in Vermont in 1967. It had been banded in New Jersey in 1953.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Large flycatcher with a broad shouldered and big headed look. Note rusty primaries and tail feathers. Juveniles have more white edging on feathers than adults.

None



Large flycatcher with a peaked crown. The underside of the tail has a very broad rusty stripe down the middle. Note bright yellow belly that goes farther up the breast than similar flycatchers.

None



Large flycatcher with a thick bill, a big head, and a peaked crown. Head

and chest are dark gray and belly is bright yellow.

None



Nests in holes in trees or other artificial structures that provide a protected place to nest.

None



Breeds in woodlots and open woodland, particularly among deciduous trees.

None

Eastern Kingbird

Bird Characteristics

Scientific Name: *Tyrannus tyrannus*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Low Concern

Length: 7.5-9.1 in (19-23 cm)

Weight: 1.2-1.9 oz (33-55 g)

Wingspan: 13.0-15.0 in (33-38 cm)

Basic Description: With dark gray upperparts and a neat white tip to the tail, the Eastern Kingbird looks like it's wearing a business suit. And this big-headed, broad-shouldered bird does mean business—just watch one harassing crows, Red-tailed Hawks, Great Blue Herons, and other birds that pass over its territory. Eastern Kingbirds often perch on wires in open areas and either sally out for flying insects or flutter slowly over the tops of grasses. They spend winters in South American forests, where they eat mainly fruit.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.1 in (2.1-2.7 cm)

Egg Width: 0.6-0.8 in (1.6-2 cm)

Incubation Period: 14-17 days

Nestling Period: 16-17 days

Egg Description: Pale and smooth with a striking ring of irregular reddish spots. Usually oval but variable in shape.

Condition at Hatching: Eyes closed and orange skin bare, except for some gray or white down.

Nest Placement: Eastern Kingbirds nest in open habitats in trees like hawthorn, apple, elm,

mulberry, Osage-orange, and Norway spruce. The female probably selects the nest site, but the male may influence the decision: he sometimes positions himself in a potential nest site before the female chooses, and he may reuse a site in later years even if he has a new mate.

Nest Description: The female builds the nest over the course of a week or two, mostly in the mornings. The male keeps an eye on the female while she builds the nest, possibly to warn her of predators, or possibly to keep her from mating with another male. The nest is up to 7 inches across and 6 inches deep, built very sturdily to withstand the buffeting weather that accompanies an exposed nest site. It has an exterior of small twigs, coarse roots, dry weed stems, strips of bark, and sometimes bits of trash such as cigarette butts, plastic, and twine. On the inside cup, only 2–3 inches across and an inch or two deep, is a softer lining of fine rootlets, willow catkins, cottonwood fluff, cattail down, and horsehair. Building the nest takes 1–2 weeks.

Bird Information

Habitat: The Eastern Kingbird usually breeds in fields with scattered shrubs and trees, in orchards, and along forest edges. It may also breed in desert riparian habitats, quaking aspen groves, parks, newly burned forest, beaver ponds, golf courses, and urban environments with tall trees and scattered open spaces. It is drawn to water, often nesting densely in trees that overhang rivers or lakes. The most widespread of our kingbird species, it breeds throughout North America, with the exception of northern Canada and the southwestern United States. During migration Eastern Kingbirds stop in many kinds of habitats. They overwinter in South America, primarily western Amazonia, where they forage in flocks in the forest canopy at the edges of rivers and lakes.

Food: Eastern Kingbirds catch insects in midair during spring migration and on the breeding range, including bees, wasps, ants, beetles, crickets, grasshoppers, locusts, bugs, and flies. They perch in fields—up to a dozen feet off the ground—on shrubs, wires, fenceposts, or even clumps of dirt, waiting for insects to fly by. Eastern Kingbirds prefer large insects, which they take back to the perch, beat into submission, and swallow whole. They swallow small insects without bothering to land. Occasionally they catch insects from vegetation, the ground, or the surface of the water. They raise nestlings on both small and large insects. In the absence of a perch, kingbirds face the wind and hover, dipping to snatch insects from vegetation. They supplement their insect diet with fruit—including mulberries, serviceberries, cherries, blackberries, elderberries, and nightshade—particularly as the summer progresses. During fall migration they begin to eat a lot of fruit, and fruit makes up most of their diet on the wintering grounds.

Behavior: Eastern Kingbirds are creatures of the air, flying quickly and directly without gliding as they hawk insects, chase intruders, or deliver food to nests. Foraging birds sometimes head into the wind and flutter their wings to move slowly over grass tops, plucking food items. Mates use an exaggerated form of this distinctive flight as a way of greeting each other. Each pair maintains a loosely defined breeding territory and usually reunites the following year, using the same territory. DNA fingerprinting reveals that it must be common for kingbirds to mate outside

the pair bond. Eastern Kingbirds may sometimes parasitize each other's nests by leaving their own eggs to be raised by another pair. Males and sometimes females are very aggressive in territorial disputes, often resorting to aerial fights in which they lock feet together, pull out each other's feathers, and sometimes fall to the ground. Eastern Kingbirds also attack large nest predators like crows and Blue Jays; such aggression has been shown to increase their breeding success.

Conservation: Eastern Kingbird is numerous and widespread but populations decreased by 47% between 1966 and 2015, according to the North American Breeding Bird Survey.

Partners in Flight estimates a global breeding population of 27 million, with 84% breeding in the U.S. and 16% in Canada. The species rates an 11 out of 20 on the Continental Concern Score. Eastern Kingbird is not on the

Color Pattern: Eastern Kingbirds are blackish above and white below. The head is a darker black than the wings and back, and the black tail has a conspicuous white tip.

Fun Facts

-> During the summer the Eastern Kingbird eats mostly flying insects and maintains a breeding territory that it defends vigorously against all other kingbirds. In the winter along the Amazon, however, it has a completely different lifestyle: it travels in flocks and eats fruit.

-> Parent Eastern Kingbirds feed their young for about seven weeks. Because of this relatively long period of dependence, a pair generally raises only one brood of young per nesting season.

-> It's not called a kingbird for nothing. The Eastern Kingbird has a crown of yellow, orange, or red feathers on its head, but the crown is usually concealed. When it encounters a potential predator the kingbird may simultaneously raise its bright crown patch, stretch its beak wide open to reveal a red gape, and dive-bomb the intruder.

-> The scientific name

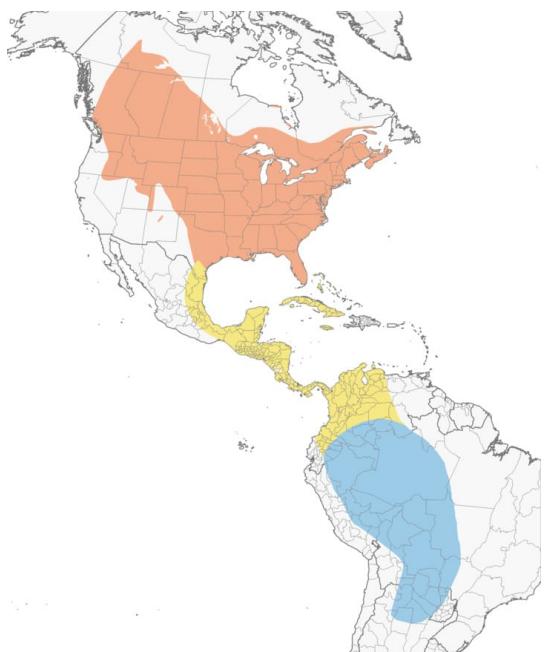
-> One of the byproducts of being an insectivore is that both adults and nestlings regurgitate pellets of insect exoskeletons.

-> Kingbirds are "passerines," a taxonomic group commonly referred to as perching birds or songbirds. But kingbirds and other flycatchers are in a different subgroup from true songbirds, and they don't have nearly as complex voices. Rather than learning their calls they probably perform them innately. The young begin to give adult calls at about two weeks of age.

-> Kingbirds sometimes catch small frogs, treating them the same way they deal with large insects: beating them against a perch and swallowing them whole. Eastern Kingbirds apparently rely almost completely on insects and fruit for moisture; they are rarely seen drinking water.

-> The oldest recorded Eastern Kingbird was a female, and at least 10 years, 1 month old when she was recaptured and rereleased during banding operations in New York in 2007.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Large-headed flycatcher with an upright posture and a white-tipped square tail. Blackish above (darker on the head) and white below.

None



Sturdy flycatcher with a black head and blackish back. Note white-tipped square tail.

None



Perches upright on wires or exposed perches. White below and blackish above with a white-tipped tail.

None



Blackish back combined with white-tipped tail is distinctive. Found in open areas.

None



Breeds in open habitats such as yards, fields, pastures, grasslands, or wetlands.

None

Scissor-tailed Flycatcher

Bird Characteristics

Scientific Name: *Tyrannus forficatus*

Order: Passeriformes

Family Name: Tyrannidae

Conservation Status: Low Concern

Length: 8.7-14.6 in (22-37 cm)

Weight: 1.3-2.0 oz (36-56 g)

Basic Description: An elegant gray and salmon-pink flycatcher festooned with an absurdly long tail, the Scissor-tailed Flycatcher is the bird to look for on fence wires in the south-central United States. They typically perch in the open, where their long, forked tails make an unmistakable silhouette. The tail proves useful as they expertly catch insects on the wing with sharp midair twists and turns. In late summer and early fall, scissor-tails gather in large, bickering flocks to migrate to Mexico and Central America.

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-0.9 in (2-2.4 cm)

Egg Width: 0.6-0.8 in (1.5-2 cm)

Incubation Period: 13-23 days

Nestling Period: 14-17 days

Egg Description: White or creamy with dark red, reddish brown, or purple blotches.

Condition at Hatching: Helpless, with reddish brown skin and sparse white down.

Nest Placement: The male and female travel together throughout their territory in search of a nest site in open prairie, mesquite prairie, parks, gardens, pastures, croplands, roadsides or saltmarsh edges. When they find a potential nest site in an isolated tree or shrub, they both

hop around and test out different spots by pressing themselves against the branches. They choose an open site that's sheltered from the prevailing wind and often shaded by some foliage.

Nest Description: The female builds the nest on her own, often escorted by the male. She may finish the nest in a couple of days or spend a few weeks on it. She builds a rough frame, 5–6 inches across, using coarse materials like plant stems and flowers, oak catkins, cudweed, wool, Spanish moss, peppergrass, tissue, paper, string, thread, and cotton. She makes an inner cup—3 inches across and 2 inches deep—of closely knit cudweed flowers, string, cloth, and cotton, sometimes adding wet soil, caterpillar cocoons, sheep wool, Bermuda grass leaves, cedar bark, chicken feathers, seed silk, cigarette filters, paper, or carpet fuzz. Finally, she lines the nest with tightly woven dried roots, thistledown, cotton fibers, and wooly cudweed leaves.

Bird Information

Habitat: Scissor-tailed Flycatchers breed in savannas with scattered trees, shrubs, and patches of brush in the south-central U.S. and just over the border into northern Mexico. They also breed in towns, farm fields, pastures, and landscaped areas like golf courses or parks—areas with a mixture of feeding perches, open space, and trees for nesting. Scissor-tailed Flycatchers spend the winter in southern Mexico and Central America, in humid savannas, pastures, agricultural lands, scrublands, villages, towns, and the edges of tropical deciduous forests. They commonly stay below 5,000 feet elevation but occasionally winter at up to 7,500 feet. Sometimes they roost in towns and disperse to the countryside to forage.

Food: Scissor-tailed Flycatchers eat insects, particularly grasshoppers, crickets and beetles. They occasionally eat fruit, particularly on their wintering grounds. They usually forage between ground level and 30 feet off the ground, snatching insects from the air or gleaning them from vegetation. Between insect-catching flights they return to a perch on a fence, wire, or tree branch. Often a Scissor-tailed Flycatcher will swallow a small prey item during the flight back to its perch, but it beats large items against the perch before eating them. Occasionally Scissor-tailed Flycatchers capture insects directly from sparsely vegetated ground. On rare occasions they forage for insects or berries by hopping from branch to branch in live oak, post oak, red mulberry, or hackberry, or by hovering near trees.

Behavior: The Scissor-tailed Flycatcher flies in straight lines with fast wingbeats, its tail folded. It also often hovers with its tail spread or makes abrupt turns in midair. Scissor-tailed Flycatchers form large roosts during spring and fall migration, and they flock in winter as well. In some populations the males continue roosting in groups throughout the breeding season, but breeding birds tend to forage alone or in pairs. Males arrive before females in the early spring to establish and defend territories. After pairing up, both males and females chase and attack other individuals that intrude onto their territory. Trespassing happens frequently, especially in the early morning, so keep an eye out if you see these birds as you may be treated to an amazing aerial chase. Pairs are monogamous within a breeding season but don't always reunite in later years. Scissor-tailed Flycatchers attack intruding Red-tailed Hawks,

Swainson's Hawks, Turkey Vultures, Mourning Doves, Great-tailed Grackles, Common Grackles, Northern Mockingbirds, Western Kingbirds, Loggerhead Shrikes, House Sparrows, American Crows, Blue Jays, and Lark Sparrows.

Conservation: Scissor-tailed Flycatcher numbers declined by about 31% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 9.5 million with 92% breeding in the U.S., and 50% spending some part of the year in Mexico. The species rates an 11 out of 20 on the Continental Concern Score. Scissor-tailed Flycatcher is not on the

Color Pattern: These are pale gray birds with blackish wings and black tails with white edges. Adults have salmon-pink flanks that extend to underwing patches that are very conspicuous in flight. Males are more intensely colored than females.

Fun Facts

-> The Scissor-tailed Flycatcher forms large premigratory roosts in late summer, with up to 1,000 birds in one flock. They often roost near towns, perhaps taking advantage of the large trees as roosting sites.

-> The Scissor-tailed Flycatcher uses many human products in its nest, such as string, cloth, paper, carpet fuzz, and cigarette filters. One study of nests in an urban area in Texas found that artificial materials accounted for 30% of the weight of nests.

-> A member of the kingbird genus

-> Scissor-tailed Flycatchers tend to wander widely on their way to and from the wintering grounds, a habit they share with Fork-tailed Flycatchers and Tropical Kingbirds. During spring and fall they may show up almost anywhere in North America, as far north as British Columbia and Nova Scotia.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Slender, stout-billed flycatcher with a very long, deeply forked tail. Pale gray with blackish wings and tail and salmon-pink flanks and under belly.



Juvenile

Juveniles have shorter tails than adults and are pale gray overall without the salmon wash on the flanks and under belly.



Adult

None



Adult

In flight, salmon-colored shoulders and underwings are visible. Note extremely long, forked tail.



Juvenile

Juveniles have a pale gray head and back and a shorter tail than adults.



Adult

None



Adult

None



Adult

Breeds in open habitats in the southern Great Plains and south Texas, especially around scattered trees or utility lines.

Loggerhead Shrike

Bird Characteristics

Scientific Name: *Lanius ludovicianus*

Order: Passeriformes

Family Name: Laniidae

Conservation Status: Common Bird in Steep Decline

Length: 7.9-9.1 in (20-23 cm)

Weight: 1.2-1.8 oz (35-50 g)

Wingspan: 11.0-12.6 in (28-32 cm)

Basic Description: The Loggerhead Shrike is a songbird with a raptor's habits. A denizen of grasslands and other open habitats throughout much of North America, this masked black, white, and gray predator hunts from utility poles, fence posts and other conspicuous perches, preying on insects, birds, lizards, and small mammals. Lacking a raptor's talons, Loggerhead Shrikes skewer their kills on thorns or barbed wire or wedge them into tight places for easy eating. Their numbers have dropped sharply in the last half-century.

Nesting Characteristics

Clutch Size: 5-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.1 in (2.3-2.7 cm)

Egg Width: 0.7-0.8 in (1.8-2 cm)

Incubation Period: 15-17 days

Nestling Period: 16-20 days

Egg Description: Eggs are grayish buff, marked with gray to yellowish-brown.

Condition at Hatching: Naked, blind, and helpless, with closed eyes.

Nest Placement: Both sexes help find the nest site, inspecting many locations before choosing. Loggerhead Shrikes often build their nests in thorny vegetation, which may help keep

predators away. In the absence of trees or shrubs, they sometimes nest in brush piles or tumbleweeds. Average height of nests above the ground ranges from about 2.5–4 feet.

Nest Description: Both sexes gather material. The female usually constructs the nest on her own, over a period of about 6–11 days. The bulky, well-insulated open cup is neatly woven of rootlets, twigs, forbs, and bark strips and lined inside with soft material such as flowers, lichen, grass, moss, feathers, fur, string, or cloth. The nest is about 6 inches in diameter on the outside, with an interior diameter of about 4 inches; the cup is about 3 inches deep.

Bird Information

Habitat: Loggerhead Shrikes inhabit open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries. Loggerhead Shrikes are often seen along mowed roadsides with access to fence lines and utility poles.

Food: Loggerhead Shrikes eat insects and other arthropods, amphibians, reptiles, small mammals, and birds; they also sometimes feed on roadkill and carrion. Their staple foods include agricultural pests such as grasshoppers, beetles and rodents. Insects generally dominate the Loggerhead Shrike's diet during breeding season, while winter brings a greater reliance on vertebrate prey. These include lizards, snakes, frogs, turtles, sparrows, goldfinches, ground squirrels, voles, mice, and shrews, to name just a few.

Behavior: Loggerhead Shrikes hunt by scanning the ground from elevated perches, then diving onto prey. They also hover-hunt. Loggerhead Shrikes sometimes hunt from the ground, flashing their wing patches in a manner similar to the Northern Mockingbird, to startle prey out of hiding. To immobilize large prey items, the Loggerhead Shrike impales them on sharp objects such as thorns and barbed wire, or tucks them into forks between branches. Caches of prey thus lain away, also called "larders" or "pantries," provide food stores during winter when prey is scarce, or in breeding season when energy demands are high. A well-provisioned larder may also help a male shrike attract a mate. Loggerhead Shrikes maintain territories largely through songs and displays. Males challenge intruders with a wing-fluttering bow, like an intensified version of their prey-stalking display. Displaying rivals usually face away from one another, but may whirl to face each other or stamp the ground. Before nesting, several neighboring shrikes may gather together and call or display for several minutes. This may help establish territories in the neighborhood, promote pair formation, and help new arrivals find territories near already-established birds. Courting males feed and sing to females, perform a ritual dance, and/or perform a flight display. They are mostly monogamous, although females occasionally raise one brood with one male and then take up with another mate for a second brood the same season.

Conservation: Loggerhead Shrikes are still fairly numerous in some areas (particularly the South and West), but their populations have fallen sharply. Between 1966 and 2015, the species declined by almost 3% per year, resulting in a cumulative decline of 76%, according to

the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population is 5.8 million, with 82% spending some part of the year in the U.S., 30% in Mexico, and 3% breeding in Canada. The species rates an 11 out of 20 on the Continental Concern Score, and the

Color Pattern: The Loggerhead Shrike is a gray bird with a black mask and white flashes in the black wings. The gray head contrasts with the wide, black mask, black bill, and white throat. The tail is black with white corners; the wings are black with white at the base of the primaries that form a small “handkerchief” spot when the wing is closed and larger white patches in flight. Juveniles have darker barring above and below.

Fun Facts

-> A Loggerhead Shrike can kill and carry an animal as massive as itself. It transports large prey in its feet and smaller victims in its beak.

-> The upper cutting edge (tomium) of the Loggerhead Shrike’s hooked bill features a pair of built-in pointy projections, aptly named “tomial teeth.” Like a falcon, the shrike tackles vertebrate prey with a precise attack to the nape, probably using these tomial “teeth” to paralyze the animal with a jab to the spinal cord.

-> Loggerhead Shrikes impale noxious prey such as monarch butterflies and eastern narrow-mouthed toads—then wait for up to three days to eat them, which allows time for the poisons to break down. These shrikes also eat the heads and abdomens of toxic lubber grasshoppers, while discarding the insect’s poisonous thorax.

-> Newly fledged Loggerhead Shrikes perform exaggerated, misdirected versions of adult hunting behavior. They peck at inanimate objects, fly about with leaves or sticks in their beaks, practice aerial chases without a target, or chase after their parents. They also perform rudimentary impaling gestures, grasping objects in the tip of their bill and repeatedly touching them to a branch or perch as if trying to get them to stick.

-> Loggerhead Shrikes sometimes go hunting on cold mornings, when insect prey are immobilized by low temperatures.

-> “Loggerhead,” a synonym for “blockhead,” refers to the unusually large size of this bird’s head in relation to its body.

-> The longest-lived Loggerhead Shrike on record—a male—was at least 11 years, 9 months old when it was caught and released in 2010 by researchers in California.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Chunky, big-headed songbird with a thick, hooked bill. It has a gray head with a black mask that wraps across the top of the bill. Note prominent white flashes in the wings in flight.



Adult

Chunky songbird with a thick, hooked bill and a long tail. White wing patch often visible at rest. Sometimes shows faint barring on the whitish undersides.



Adult

None



Adult

In flight, white wing flashes are prominent. Outer tail feathers also flash white.



Juvenile

Chunky songbird with a thick, hooked bill. Young birds are more brownish than adults, with stronger brownish barring on the chest.



Adult

Often hunts from exposed perches such as telephone wires and fencelines.



Adult

Eats small animals including insects, birds, and reptiles; impales prey on thorns and barbed wire to save for later.



Adult

Lives in open, brushy habitats including grasslands, desert scrub, prairies, savannas, and agricultural areas.

Warbling Vireo

Bird Characteristics

Scientific Name: *Vireo gilvus*

Order: Passeriformes

Family Name: Vireonidae

Conservation Status: Low Concern

Length: 4.7-5.1 in (12-13 cm)

Weight: 0.3-0.6 oz (10-16 g)

Wingspan: 8.7 in (22 cm)

Basic Description: The rich song of the Warbling Vireo is a common sound in many parts of central and northern North America during summer. It's a great bird to learn by ear, because its fast, rollicking song is its most distinctive feature. Otherwise, Warbling Vireos are fairly plain birds with gray-olive upperparts and white underparts washed with faint yellow. They have a mild face pattern with a whitish stripe over the eye. They stay high in deciduous treetops, where they move methodically among the leaves hunting for caterpillars.

Nesting Characteristics

Number of Broods: 1-2 broods

Egg Length: 0.7-0.8 in (1.8-2 cm)

Egg Width: 0.5-0.6 in (1.3-1.5 cm)

Incubation Period: 12-14 days

Nestling Period: 13-14 days

Egg Description: White with a few scattered dots of reddish or dark brown.

Condition at Hatching: Helpless, naked, with dark-yellow skin except for tufts of light-brown down, eyes closed.

Nest Placement: Warbling Vireos nest in the outer portions of deciduous trees and tall shrubs from 3 to 140 feet above the ground. The female selects the site, sometimes placing nesting material in several locations before making a final choice.

Nest Description: Warbling Vireos weave a rough, slightly rounded hanging cup, usually suspending the nest from a horizontally forked twig. The nest may consist of plant matter, cobwebs, lichen, animal hair, and rarely feathers. Nests may contain willow down, dry grass, leaves, rootlets, horsehair, cow hair, spider silk, cocoons, cotton, birch bark, paper, thread, and string. Females do most of the building, sometimes stealing material from the nests of neighbors. The nest is about 3 inches across and 2 to 3 inches deep, with an inner cup about 2 inches across and 1.5 inches deep.

Bird Information

Habitat: During breeding season, Warbling Vireos occur in mature deciduous woodlands from sea level to an elevation of about 10,500 feet—especially along streams, ponds, marshes, and lakes, but sometimes in upland areas away from water. They also take up residence in young deciduous stands that emerge after clearcutting. They are rarely found in purely coniferous forests. Warbling Vireos often nest in around people, including in neighborhoods, urban parks, orchards, and campgrounds. Their winter range, which extends through western Mexico and northern Central America, is much smaller than their breeding range. It includes diverse habitats, from shade-coffee plantations to thorn forests to pine-oak woodland. During the winter in western Mexico, this bird almost always hangs out with mixed-species feeding flocks.

Food: Warbling Vireos eat mainly caterpillars, pupae, and adult moths and butterflies. They also eat ladybugs, beetles, bugs, bees, ants, wasps, and spiders. In fall and winter they add elderberries, poison oak berries, and other fruit to their diet. They forage mainly in treetops, gleaning insects from leaves and sometimes twigs; they also hunt by hovering, stalking, hawking, and flycatching. To subdue caterpillars and other larger prey, a Warbling Vireo whacks victims forcefully against its perch. Breeding pairs forage alone during the breeding season; at other times individual Warbling Vireos forage in mixed-species flocks.

Behavior: Warbling Vireos spend most of their time in the treetops of deciduous woods. Males are highly territorial and spend much of their time during the breeding season singing. They usually arrive on their breeding grounds before females, immediately commencing a singing-and-patrolling campaign to establish and defend territory. During courtship, a male approaches his prospective mate head-on, rhythmically weaving his body from side to side. With quivering wings, he closes the gap between them to about an inch, whereupon the female strikes repeatedly at his open bill with her closed one. While their nest is under construction, a male Warbling Vireo spends about a third of his time guarding the female. During incubation, the female stays on the nest at night while her mate sleeps in a nearby tree. Both sexes help raise their young to fledging stage, but females do the lion's share. When parents are feeding young, one adult often waits at the nest until the returning partner signals with a call—ensuring that one parent is always with the nestlings. As hatchlings mature, feedings become more frequent. At one nest where young were close to fledging, an observer recorded 29 feeding visits within one hour. Both sexes ferociously mob jays, grackles, and other birds that approach their nests. Other probable nest predators include red and western gray squirrels.

Conservation: Warbling Vireos are numerous and their numbers experienced a slight overall increase between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 51 million, with 44% breeding in Canada, 53% spending part of the year in the U.S., and 87% of the population spending part of the year in Mexico. Warbling Vireos rate an 8 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Warbling Vireos are gray-olive above and whitish below, washed on the sides and vent with yellow. They have a dark line through the eye and a white line over the eye. The lores (the area between the eye and bill) are white in most individuals. Typically, the brightest plumage on Warbling Vireos is on vent or flanks. Worn midsummer birds can be nearly entirely gray above and whitish below.

Fun Facts

-> Warbling Vireos have a good name—the males sing a fast, up-and-down, rollicking song that suits the word “warbling.” The early twentieth century ornithologist William Dawson described the song this way: “fresh as apples and as sweet as apple blossoms comes that dear, homely song from the willows.” The highly variable song usually ends on a high note, leading the birder Pete Dunne to describe it as sounding “like a happy drunk making a conversational point at a party.”

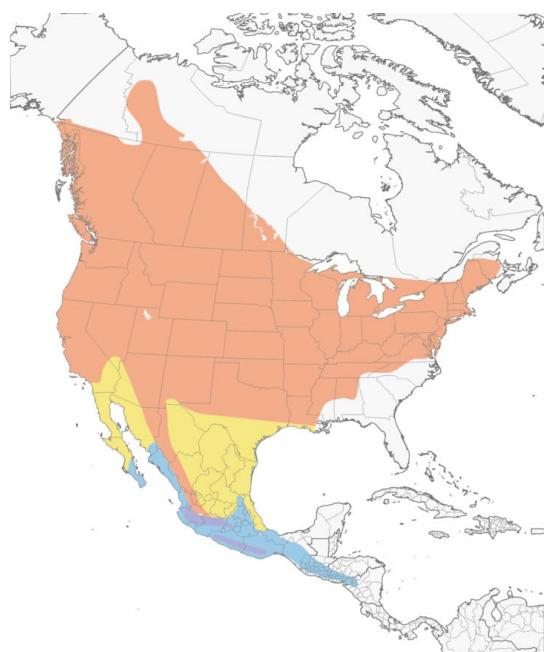
-> Across their wide range, Warbling Vireos differ from one population to another in several characteristics, including overall size, bill shape, plumage coloring, molt patterns, wintering areas, and vocalizations. The differences are significant enough to lead ornithologists to recognize six separate subspecies of Warbling Vireo, and at one time divided them into two species.

-> Brown-headed Cowbirds frequently deposit their own eggs in the nests of Warbling Vireos. In some instances, the vireo pair incubates the alien egg and raises the young cowbird until it fledges. Female vireos in some eastern populations, however, tend to puncture and eject interlopers’ eggs.

-> Researchers speculate that Warbling Vireo song is at least partially learned rather than hard-wired. They base this supposition in part on observations of one individual whose song more closely resembled that of a Red-eyed Vireo than that of its parents. The garbled song, they concluded, probably resulted from a flawed learning process during the bird’s development.

-> The longest-lived Warbling Vireo on record—a male that was originally banded in July 1966—was at least 13 years, 1 month old when it was recaptured and rereleased during banding operations in California.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Eastern)

A small, stocky songbird with a relatively thick bill and stout, blue-toned legs. The wing is mostly plain, and the face has an “open” look, lacking the strong dark eyeline shown by several similar species.



Adult (Eastern)

Often washed pale yellow below, with the brightest color on the flanks. Face contrast is low, with a weak stripe in front of and behind the eye. This makes the dark eye stand out strongly on the face. Though Eastern birds (



Adult (Western)

A stout, plain-winged songbird with sturdy blue-gray legs and a blunt bill. Generally olive-gray above and whitish below with a low-contrast face pattern. Western birds (



Adult (Western)

The slight yellow wash to the underparts is concentrated along the flanks instead of the center of the breast or throat, which helps to distinguish this species from Philadelphia Vireo . Visual differences between populations are slight, but this bird shows a darker gray crown typical of the Western subspecies group (



Adult (Western)

The large head, relatively short tail, and stout bill with a hooked tip identify this as a vireo. This species has plain wings and a low-contrast face with bold dark eye. Western birds (



Adult (Western)

A stout, short-tailed songbird with a thick bill and plain wings. When viewed from the side, these vireos can appear fairly yellow on the flanks; however, note the white throat. The bold dark eye stands out on the relatively dull, low contrast face.



Habitat

Breeding birds strongly prefer deciduous woodland near water; on migration the species uses nearly any vegetated habitat.

Red-eyed Vireo

Bird Characteristics

Scientific Name: *Vireo olivaceus*

Order: Passeriformes

Family Name: Vireonidae

Conservation Status: Low Concern

Length: 4.7-5.1 in (12-13 cm)

Weight: 0.4-0.9 oz (12-26 g)

Wingspan: 9.1-9.8 in (23-25 cm)

Basic Description: A tireless songster, the Red-eyed Vireo is one of the most common summer residents of Eastern forests. These neat, olive-green and white songbirds have a crisp head pattern of gray, black, and white. Their brief but incessant songs—sometimes more than 20,000 per day by a single male—contribute to the characteristic sound of an Eastern forest in summer. When fall arrives, they head for the Amazon basin, fueled by a summer of plucking caterpillars from leaves in the treetops.

Nesting Characteristics

Clutch Size: 1-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-0.9 in (2-2.4 cm)

Egg Width: 0.5-0.9 in (1.2-2.4 cm)

Incubation Period: 11-15 days

Nestling Period: 10-12 days

Egg Description: Dull white with sparse, sepia speckling.

Condition at Hatching: Born helpless, with eyes closed and sparse down on the pinkish orange skin of their heads, backs, and wings.

Nest Placement: The female chooses a fork in a branch of a midstory to understory tree or

shrub. The fork is typically shaded, concealed from above by vegetation, and far enough from the trunk to provide an unobstructed 360 degree view. Most nests are in deciduous trees, at an average height of 10 to 15 feet.

Nest Description: The female spends 4 to 5 days constructing a nest of bark strips, grasses, pine needles, wasp-nest paper, twigs, and plant fibers that hangs below the branch. She glues the materials (some of which are provided by the male) together and to the branch fork with spider-web adhesive, occasionally supplemented with spider egg cases and sticky plant fibers. The open cup is usually just over 2 inches across and an inch and a half deep, surrounded by half-inch walls and supported by an inch-thick floor.

Bird Information

Habitat: Throughout their summer range, Red-eyed Vireos breed in deciduous and mixed forests with shrubby understories. Numbers are greatest away from forest edges and near small openings in the interior forest canopy. In the pine forests of the southeastern United States, they prefer stream and river edges supporting hardwood trees. In northern areas, breeding territories in alder thickets and aspen groves are common. Red-eyed Vireos can sometimes be found in residential areas, city parks, and cemeteries with enough large trees. During migrations, they use a larger variety of forest habitats. Still preferring broadleaf forests to conifers, they will make use of forest edges, citrus groves, city parks, suburban residential areas, and other areas with scattered trees. During fall migrations, they rest and feed in Gulf Coast pine forests with dense undergrowth. In their winter range in the Amazon basin, they inhabit a variety of habitats up to 10,000 feet elevation. Rainforest, mangroves, plantations, second-growth forests and forest edges, arid regions with adequate vegetation, and even gardens with scattered trees and shrubby clearings can serve as winter homes.

Food: Red-eyed Vireos eat invertebrates as well as seeds and fruits. Their diet changes substantially throughout the year: it's mostly insects during summer, especially caterpillars which can account for 50 percent of their summer diet. Caterpillars make up only 15 percent of their spring diet, and 20 percent in fall. They also eat butterflies and moths, beetles, mosquitoes, flies, bugs, cicadas, wasps, ants, bees, and sawflies, to (less frequently) grasshoppers, crickets, dragonflies, and damselflies. They'll also eat spiders and small snails. Smaller prey are eaten whole. Caterpillars and other larger meals are trapped under a foot and plucked apart into bite-sized bits. Among plant foods, small wild fruits like blackberries, elderberries, spicebush, Virginia creeper, sassafras, dogwood, arrowwood, and bayberry outnumber the occasional flowers, leaf buds, and magnolia seeds. As fall migration approaches, the amount of fruit in their diet rises. During migration they eat both insects and fruit, but are almost entirely fruit-eaters on their over-wintering grounds in South America.

Behavior: Breeding males sing incessantly from before sunrise until well into the afternoon, usually from treetops around the periphery of their territories. Challenges provoke posturing, chasing, pecking, grappling, and displacing rivals from perches. Females and males indicate threats by raising crown feathers, fanning tails, and opening the bill while pecking and calling. Males also threaten by tilting their bodies forward and thrusting their heads out. The female

aggressively defends the nest. She and the male will swoop, snap, and peck at intruding jays, crows, squirrels, and chipmunks. Both chase, scold, and strike intruding cowbirds with their wings. But once cowbird eggs are in the nest they are generally tolerated, though the vireo parents sometimes cover the intruder's eggs with additional nesting material. Red-eyed Vireos hop along and flit between branches when foraging. They glean most of their invertebrate food from the underside of leaves. Pairs are seasonally monogamous. The female builds the nest, incubates the eggs, and broods the young. The male offers nest materials and feeds the female, especially during incubation. The female begs for food away from the nest, quivering her wings, opening and closing her mouth, and calling, much like a begging chick. She solicits copulation by calling and crouching with wings quivering and tail spread and lowered. Both mates vibrate wings and twitter during copulation. Both may join large mixed flocks during migrations and on wintering grounds.

Conservation: Red-eyed Vireos are numerous and despite some local declines, overall populations increased slowly but steadily between 1966 and 2014, according to the North American Breeding Bird Survey. Declines were most notable in the Western United States, where numbers fell by 76% percent during that same period. Partners in Flight estimates the global breeding population at 180 million, with 48% breeding in Canada, and 27% breeding and migrating through the U.S. The species rates a 5 out of 20 on the Continental Concern Score. Red-eyed Vireo is not on the

Color Pattern: Red-eyed Vireos are olive-green above and clean white below with a strong head pattern: a gray crown and white eyebrow stripe bordered above and below by blackish lines. The flanks and under the tail have a green-yellow wash. Adults have red eyes that appear dark from a distance; immatures have dark eyes.

Fun Facts

-> The red iris that gives the Red-eyed Vireo its name doesn't develop until the end of the birds' first winter. Then the brown iris the birds were born with becomes dull brick red to bright crimson in different individuals.

-> Some find the Red-eyed Vireo's song unending and monotonous. Bradford Torrey wrote in 1889, "I have always thought that whoever dubbed this vireo the 'preacher' could have had no very exalted opinion of the clergy." But each male sings 30 or more different songs, and neighbors have unique repertoires. Over 12,500 different Red-eyed Vireo song types have been recorded.

-> On May 27, 1952, Louise de Kiriline Lawrence counted the number of songs sung by a single Red-eyed Vireo seeking a mate on his territory 180 miles north of Toronto. He sang 22,197 songs in the 14 hours from just before dawn to evening, singing for 10 of those hours.

-> From the 1920s to the 1940s Red-eyed Vireos expanded west into Utah and Oregon and northeast into Newfoundland. The most likely cause is new shelterbelts and landscaping, particularly where eastern tree species were planted. Since the 1970s, however, numbers in the Big Basin region of the West seem to have fallen steadily.

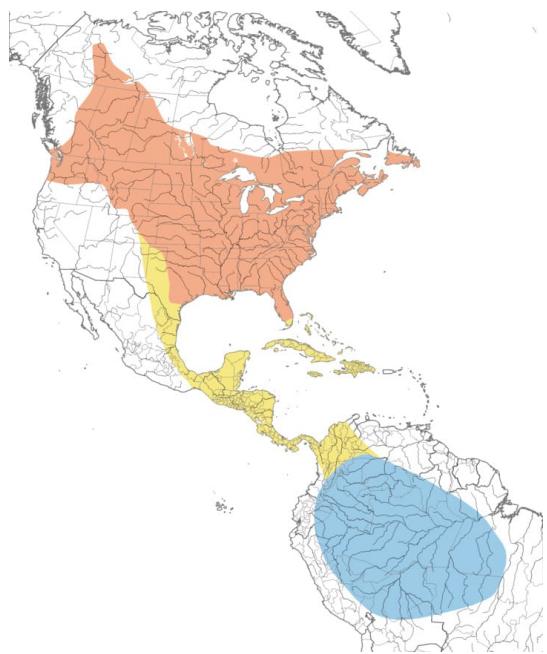
-> Several subspecies of Red-eyed Vireos remain resident in South America or migrate only

within that continent.

-> The Red-eyed Vireo's magnetic compass guides migration between continents. But fat stores seem to influence migration paths when the birds encounter the Gulf of Mexico. Fatter birds head across the Gulf, while leaner birds hug the coastline or travel inland around the Gulf. Cloud cover also makes routes near land more likely.

-> The oldest known Red-eyed Vireo was at least 10 years, 2 months old when it was recaptured and rereleased during banding operation in Maryland.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult
None



Adult
None



Adult
None



Adult
None



None
None



Habitat
None

Steller's Jay

Bird Characteristics

Scientific Name: *Cyanocitta stelleri*

Order: Passeriformes

Family Name: Corvidae

Conservation Status: Low Concern

Length: 11.8-13.4 in (30-34 cm)

Weight: 3.5-4.9 oz (100-140 g)

Wingspan: 17.3 in (44 cm)

Basic Description: A large, dark jay of evergreen forests in the mountainous West. Steller's Jays are common in forest wildernesses but are also fixtures of campgrounds, parklands, and backyards, where they are quick to spy bird feeders as well as unattended picnic items. When patrolling the woods, Steller's Jays stick to the high canopy, but you'll hear their harsh, scolding calls if they're nearby. Graceful and almost lazy in flight, they fly with long swoops on their broad, rounded wings.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1 brood

Egg Length: 1.1-1.4 in (2.7-3.5 cm)

Egg Width: 0.8-0.9 in (2-2.4 cm)

Incubation Period: 16 days

Nestling Period: 16 days

Egg Description: Bluish-green spotted dark brown, purplish, or olive.

Nest Placement: Both members of the pair choose the nest site, typically a conifer, and both gather nest material. Steller's Jays put their nests on horizontal branches close to the trunk and often near the top of the tree (though some nests are built much lower, even just above ground level).

Nest Description: The nest is a bulky cup of stems, leaves, moss, and sticks held together with mud. The inside is lined with pine needles, soft rootlets or animal hair. The finished nest can be 10-17 inches in diameter, 6-7 inches tall, and 2.5-3.5 inches deep on the inside.

Bird Information

Habitat: Steller's Jays are birds of coniferous and coniferous-deciduous forests. In the southwestern U.S. and Mexico they also live in arid pine-oak woodland. You'll typically find them at elevations of 3,000-10,000 feet, and lower down in the evergreen forests of the Pacific coastal foothills. During irruptive movements in some winters, flocks may move through unusual habitats such as Sonoran desert.

Food: A generalist forager, Steller's Jays eat insects, seeds, berries, nuts, small animals, eggs, and nestlings. Around people, they also eat garbage, unguarded picnic items, and feeder fare such as peanuts, sunflower seeds, and suet. With large nuts such as acorns and pinyon pine seeds, Steller's Jays carry several at a time in their mouth and throat, then bury them one by one as a winter food store. Steller's Jays are opportunists and will steal food from other birds or look for handouts from people.

Behavior: Steller's Jays move around with bold hops of their long legs, both on the ground and among the spokelike main branches of conifers. They pause often to eye their surroundings, cocking their head with sudden movements this way and that. Jays have incredible spatial memories, and Steller's Jays store surplus food in caches. They also raid the caches of Clark's Nutcrackers and other jays. Steller's Jays are common nest predators, stealing both eggs and chicks from the nests of many species. They are very social, traveling in groups, sometimes playing with or chasing each other, or joining mixed-species flocks. One of the most vocal species of mountainous forests, Steller's Jays keep up a running commentary on events and often instigate mobbing of predators and other possibly dangerous intruders.

Conservation: Steller's Jay populations remained relatively stable, showing some local declines, between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 2.8 million with 70% occurring in the U.S., 9% in Canada, and 18% in Mexico. Steller's Jay rates an 11 out of 20 on the Continental Concern Score, and is a U.S.-Canada Stewardship species. It is not on the

Color Pattern: At a distance, Steller's Jays are very dark jays, lacking the white underparts of most other species. The head is charcoal black and the body is all blue (lightest, almost sparkling, on the wings). White markings above the eye are fairly inconspicuous.

Fun Facts

-> Steller's and Blue jays are the only North American jays with crests. The Blue Jay is

expanding its range westward. Where they meet, the two species occasionally interbreed and produce hybrids.

-> Steller's Jays have the dubious honor of being one of the most frequently misspelled names in all of bird watching. Up close, the bird's dazzling mix of azure and blue is certainly stellar, but that's not how you spell their name. Steller's Jays were discovered on an Alaskan island in 1741 by Georg Steller, a naturalist on a Russian explorer's ship. When a scientist officially described the species, in 1788, they named it after him – along with other discoveries including the Steller's sea lion and Steller's Sea-Eagle.

-> The Steller's Jay and the Blue Jay are the only New World jays that use mud to build their nests.

-> The Steller's Jay shows a great deal of variation in appearance throughout its range, with some populations featuring black crests and backs, and others blue. One black-crested form in southern Mexico is surrounded by eight other blue-crested forms.

-> Steller's Jays are habitual nest-robbers, like many other jay species. They've occasionally been seen attacking and killing small adult birds including a Pygmy Nuthatch and a Dark-eyed Junco.

-> An excellent mimic with a large repertoire, the Steller's Jay can imitate birds, squirrels, cats, dogs, chickens, and some mechanical objects.

-> The oldest recorded Steller's Jay was a male, and at least 16 years 1 month old when he was found in Alaska in 1987. He had been banded in the same state in 1972.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult (Coastal)

Hefty, crested bird with an attitude. They are half charcoal black and half blue. Adults along the Pacific Coast have blue streaks on their black crest.



Adult (Interior)

Bold, inquisitive, and noisy bird of western evergreen forests. Its black crest and blue lower body separate it from similar jays. Birds in the interior have white streaks on their crest.



Adult (Central American)

Plumage color of residents in Middle America varies, but most are bluer

overall. Residents in Chiapas, Mexico south to Guatemala for example, have brighter blue bodies and shorter blue crests.



Juvenile

Juveniles look similar to adults but have a smaller crest and are often paler gray.



Adult (Coastal)

Steller's Jays often push their crest feathers up during courtship and aggressive interactions.



Adult (Interior)

Often forages on the ground, hopping around looking to eat almost anything that will fit in its mouth.



Adult (Coastal)

Very vocal bird that makes growls, creaks, rattles, and squawks of all kinds.



Habitat

Found in evergreen and mixed-evergreen forests in the western U.S., as well as parks, campgrounds, backyards, and pine-oak woodlands in the Southwest.

Blue Jay

Bird Characteristics

Scientific Name: *Cyanocitta cristata*

Order: Passeriformes

Family Name: Corvidae

Conservation Status: Low Concern

Length: 9.8-11.8 in (25-30 cm)

Weight: 2.5-3.5 oz (70-100 g)

Wingspan: 13.4-16.9 in (34-43 cm)

Basic Description: This common, large songbird is familiar to many people, with its perky crest; blue, white, and black plumage; and noisy calls. Blue Jays are known for their intelligence and complex social systems with tight family bonds. Their fondness for acorns is credited with helping spread oak trees after the last glacial period.

Nesting Characteristics

Clutch Size: 2-7 eggs

Number of Broods: 1 brood

Egg Length: 1.0-1.3 in (2.5-3.3 cm)

Egg Width: 0.7-0.9 in (1.8-2.2 cm)

Incubation Period: 17-18 days

Nestling Period: 17-21 days

Egg Description: Bluish or light brown with brownish spots.

Condition at Hatching: Naked and helpless, eyes closed, mouth lining red.

Bird Information

Habitat: Blue Jays are found in all kinds of forests but especially near oak trees; they're more

abundant near forest edges than in deep forest. They're common in urban and suburban areas, especially where oaks or bird feeders are found.

Food: Blue Jays glean insects and take nuts and seeds in trees, shrubs, and on the ground; they also eat grains. They also take dead and injured small vertebrates. Blue Jays sometimes raid nests for eggs and nestlings, and sometimes pick up dead or dying adult birds. Stomach contents over the year are about 22 percent insect. Acorns, nuts, fruits, and grains made up almost the entire remainder. Of 530 stomachs examined, traces of bird eggs and nestlings were found in only 6 stomachs, although a search was specially made for every possible trace of bird remains. Blue Jays hold food items in feet while pecking them open. They store food in caches to eat later.

Behavior: This common, large songbird is familiar to many people, with its perky crest; blue, white, gray, and black plumage; and noisy calls. Blue Jays are known for their intelligence and complex social systems, and have tight family bonds. They often mate for life, remaining with their social mate throughout the year. Only the female incubates; her mate provides all her food during incubation. For the first 8–12 days after the nestlings hatch, the female broods them and the male provides food for his mate and the nestlings. Female shares food gathering after this time, but male continues to provide more food than female. Some individual nestlings begin to wander as far as 15 feet from the nest 1–3 days before the brood fedges. Even when these birds beg loudly, parents may not feed them until they return to the nest; this is the stage at which many people find an “abandoned baby jay.” If it can be restored to or near the nest, the parents will resume feeding it. The brood usually leaves the nest together usually when they are 17–21 days old. When young jays leave the nest before then, it may be because of disturbance. The jays are usually farther than 75 feet from the nest by the end of the second day out of the nest. Young remain with and are fed by their parents for at least a month, and sometimes two months. There is apparently a lot of individual variation in how quickly young become independent. Blue Jays communicate with one another both vocally and with “body language,” using their crest. When incubating, feeding nestlings, or associating with mate, family, or flock mates, the crest is held down; the lower the crest, the lower the bird’s aggression level. The higher the crest, the higher the bird’s aggression level; when a Blue Jay squawks, the crest is virtually always held up. Blue Jays have a wide variety of vocalizations, with an immense “vocabulary.” Blue Jays are also excellent mimics. Captive Blue Jays sometimes learn to imitate human speech and meowing cats. In the wild, they often mimic Red-shouldered and Red-tailed hawks, and sometimes other species. Blue Jays are disliked by many people for their aggressive ways, but they are far less aggressive than many other species. In one Florida study, Red-bellied Woodpeckers, Red-headed Woodpeckers, Florida Scrub-Jays, Common Grackles, and gray squirrels strongly dominates Blue Jays at feeders, often preventing them from obtaining food, and Northern Bobwhites, Mourning Doves, White-winged Doves, Northern Mockingbirds, and Northern Cardinals occasionally dominated them as well. Sometimes Blue Jays mimic hawks when approaching feeders. This may deceive other birds into scattering, allowing the Blue Jay to take over the feeder, but most birds quickly return after the jay starts feeding. Blue Jays carry food in their throat and upper esophagus—an area often called a “gular pouch.” They may store 2–3 acorns in the pouch, another one in their mouth, and one more in the tip of the bill. In this way they can carry off 5 acorns at a time to store for later feeding. Six birds with radio transmitters each cached 3,000–5,000 acorns one

autumn. Their fondness for acorns and their accuracy in selecting and burying acorns that have not been infested with weevils are credited with spreading oak trees after the last glacial period. Despite being common, conspicuous birds that have been studied by many researchers, much about Blue Jays remains a mystery. This is the only New World jay that migrates north and south, and large flocks are observed flying over many hawkwatch spots, along shorelines, and at other migration overlooks, but their migration is very poorly understood. Some individuals remain year-round throughout their entire range, and at least some individuals depart during spring throughout their entire range except peninsular Florida. Migrating flocks can include adults and young birds, and recent analyses of movements of banded jays indicate that there is no age difference between jays that migrate and jays that remain resident. The proportion of jays that migrate is probably less than 20 percent.

Conservation:

Color Pattern: White or light gray underneath, various shades of blue, black, and white above.

Fun Facts

-> Thousands of Blue Jays migrate in flocks along the Great Lakes and Atlantic coasts, but much about their migration remains a mystery. Some are present throughout winter in all parts of their range. Young jays may be more likely to migrate than adults, but many adults also migrate. Some individual jays migrate south one year, stay north the next winter, and then migrate south again the next year. No one has worked out why they migrate when they do.

-> Blue Jays are known to take and eat eggs and nestlings of other birds, but we don't know how common this is. In an extensive study of Blue Jay feeding habits, only 1% of jays had evidence of eggs or birds in their stomachs. Most of their diet was composed of insects and nuts.

-> The Blue Jay frequently mimics the calls of hawks, especially the Red-shouldered Hawk. These calls may provide information to other jays that a hawk is around, or may be used to deceive other species into believing a hawk is present.

-> Tool use has never been reported for wild Blue Jays, but captive Blue Jays used strips of newspaper to rake in food pellets from outside their cages.

-> Blue Jays lower their crests when they are feeding peacefully with family and flock members or tending to nestlings.

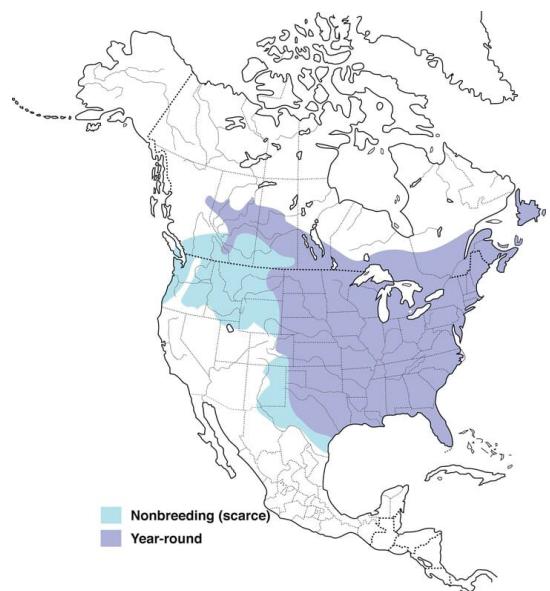
-> At feeders in Florida, Red-headed Woodpeckers, Florida Scrub-Jays, Common Grackles, and gray squirrels strongly dominate Blue Jays, often preventing them from obtaining food.

-> The pigment in Blue Jay feathers is melanin, which is brown. The blue color is caused by scattering light through modified cells on the surface of the feather barbs.

-> The black bridle across the face, nape, and throat varies extensively and may help Blue Jays recognize one another.

-> The oldest known wild, banded Blue Jay was at least 26 years, 11 months old when it was found dead after being caught in fishing gear. It had been banded in the Newfoundland/Labrador/St. Pierre et Miquelon area in 1989 and was found there in 2016.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Blue above and white below, with a prominent crest and a bold black necklace. The wings and tail are barred with black, and it has a bold white wingbar.



Adult

None



Adult

None



Adult

Large white tail corners are prominent in flight, along with a black necklace and white underparts.



Adult

When viewed head on the black necklace and feathering around the base of the bill are especially prominent.



Adult

None



Adult

Often visits feeders, sometimes in flocks.



Habitat
None

Black-billed Magpie

Bird Characteristics

Scientific Name: *Pica hudsonia*

Order: Passeriformes

Family Name: Corvidae

Conservation Status: Low Concern

Length: 17.7-23.6 in (45-60 cm)

Weight: 5.1-7.4 oz (145-210 g)

Wingspan: 22.1-24.0 in (56-61 cm)

Basic Description: Black-billed Magpies are familiar and entertaining birds of western North America. They sit on fenceposts and road signs or flap across rangelands, their white wing patches flashing and their very long tails trailing behind them. This large, flashy relative of jays and crows is a social creature, gathering in numbers to feed at carrion. They're also vocal birds and keep up a regular stream of raucous or querulous calls.

Nesting Characteristics

Clutch Size: 1-9 eggs

Number of Broods: 1 brood

Egg Length: 1.2-1.5 in (3-3.7 cm)

Egg Width: 0.8-1.0 in (2-2.5 cm)

Incubation Period: 16-19 days

Nestling Period: 24-30 days

Egg Description: Tan or olive-brown with variable amount of dark brown speckles

Condition at Hatching: Helpless and naked with pink skin. Eyes are closed for the first 7 days.

Nest Placement: Both sexes seem to choose a nesting site together (though sometimes they disagree and each begin building separate nests in different locations). They build their dome nests in conifer trees, deciduous trees, shrubs, utility poles, and even in deserted buildings.

They will nest in open woodlands, riparian thickets, farm fields, and suburban areas.

Nest Description: Black-billed Magpie pairs share the work of building their domed nests, which vary widely in size but are typically about 30 inches high and 20 inches wide. The male gathers sticks for the exterior. The female tends to the interior, forming a mud cup and lining it with grass.

Bird Information

Habitat: Black-billed Magpies live among the meadows, grasslands, and sagebrush plains of the West. Their nesting territories often follow stream courses. Though they like open areas and are not found in dense woods, they stay close to cover for protection from raptors. Magpies don't avoid human development, often spending time near barnyards, livestock areas, and grain elevators where they have ready access to food.

Food: Like other corvids (members of the jay and crow family), Black-billed Magpies have a wide-ranging diet. They eat wild fruit and grain, as well as grasshoppers and beetles that they find while foraging on the ground (they sometimes find beetles by flipping cow dung). They also kill small mammals such as squirrels and voles, and raid birds' nests. Carrion is also a main food source, as are the fly maggots found in carrion. Sometimes they steal meat from the kills of coyotes and foxes. Magpies also land atop large animals, such as cows or moose, and pick ticks off them. When they find an abundant food source, magpies will cache food for short periods.

Behavior: On the wing, Black-billed Magpies make long, sweeping flights with white flashes of their wing patches and long, trailing tails. They perch at the tops of trees, which is a means of visually establishing their territory, the equivalent of other bird species' songs. Magpies walk with a swaggering strut. They sometimes gather in flocks, even seemingly living communally, and will band together to mob a raptor. In groups, males establish dominance through a stretch display: raising the bill in the air and flashing their white eyelids. They also show aggression with their wings, flickering or quivering them to display the white wing patches; and tails spreading, quivering, or flicking their elongated tail feathers. During courtship they also use a tail-spreading display. Black-billed Magpies mate for life. The female initiates the pair bond by begging for food from the male, which begins courtship feeding. During breeding, the male stands guard near the female to reduce the chance she'll mate with another male (which does occur). One of the most notable Black-billed Magpie behaviors is the so-called "funeral"—when one magpie discovers a dead magpie, it begins calling loudly to attract other magpies. The gathering of raucously calling magpies (up to 40 birds have been observed) may last for 10 to 15 minutes before the birds disperse and fly off silently.

Conservation: Black-billed Magpies populations have been decreasing every year from 1966 to 2014, particularly on prairies, resulting in a cumulative decline by about 26%, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 5.4 million, with 63% spending part of the year in the U.S., and 50% in Canada. They rate a 7 out of 20 on the Continental Concern Score and they are not on the

Color Pattern: These birds are black and white overall with blue-green iridescent flashes in the wing and tail. The upperparts are mostly black with a white patch in the outer wing and two white stripes ("backpack straps") on the back.

Fun Facts

-> The Black-billed Magpie makes a very large nest that can take up to 40 days to construct. It's a lot of work, but a study found that it only used about 1% of the daily energy expenditure of the pair. Laying eggs, on the other hand, takes 23% of the female's daily energy budget.

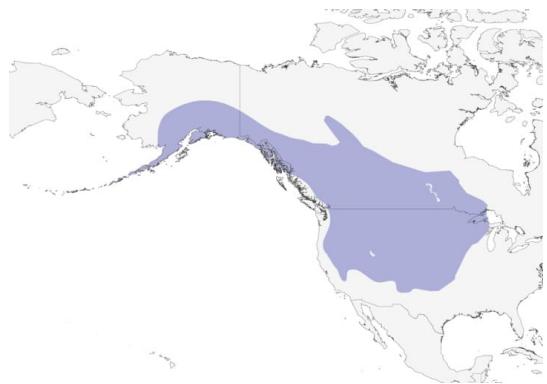
-> Historical records of the American West indicate that Black-billed Magpies have been associates of people for a long time. Magpies frequently followed hunting parties of Plains Indians and fed on leftovers from bison kills. On their expedition, Lewis and Clark reported magpies boldly entering their tents to steal food.

-> Like most members of the jay family, the Black-billed Magpie is a nest predator, although eggs and nestlings make up only a tiny portion of the bird's overall diet.

-> The Black-billed Magpie frequently picks ticks from the backs of large mammals, such as deer and moose. The magpie eats the ticks or hides some for later use, as members of the crow and jay family often do with excess food. Most of the ticks, however, are cached alive and unharmed, and may live to reproduce later.

-> The longest-living Black-billed Magpie on record was at least 9 years, 4 months old and lived in Idaho.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Jaylike bird with a long tail and a heavy bill. Appears entirely black and white, but in good light the wings and tail shine with a blue-green iridescence.

None



Flies with a bounding and rowing wingbeats, flashing its white primaries in flight. Note the white bars down its back and long diamond-shaped tail.

None



Striking black-and-white bird with blue wings and a long graduated tail.

None



A conspicuous and gregarious bird with a long tail and white braces down its back.

None



Found in meadows, grasslands, and sagebrush plains of the West as well as towns and other open areas.

None

American Crow

Bird Characteristics

Scientific Name: *Corvus brachyrhynchos*

Order: Passeriformes

Family Name: Corvidae

Conservation Status: Low Concern

Length: 15.8-20.9 in (40-53 cm)

Weight: 11.2-21.9 oz (316-620 g)

Wingspan: 33.5-39.4 in (85-100 cm)

Basic Description: None

Nesting Characteristics

Bird Information

Habitat: American Crows are highly adaptable and will live in any open place that offers a few trees to perch in and a reliable source of food. Regularly uses both natural and human created habitats, including farmland, pasture, landfills, city parks, golf courses, cemeteries, yards, vacant lots, highway turnarounds, feedlots, and the shores of rivers, streams, marshes, and beaches. Crows tend to avoid unbroken expanses of forest, but do show up at forest campgrounds and travel into forests along roads and rivers. Avoids deserts.

Food: American Crows eat a vast array of foods, including grains, seeds, nuts, fruits, berries, and many kinds of small animals such as earthworms and mice. They eat many insects, including some crop pests, and also eat aquatic animals such as fish, young turtles, crayfish, mussels, and clams. A frequent nest predator, the American Crow eats the eggs and nestlings of many species including sparrows, robins, jays, terns, loons, and eiders. Also eats carrion and garbage.

Behavior: undefined

Conservation:

Color Pattern: American Crows are all black, even the legs and bill. When crows molt, the old feathers can appear brownish or scaly compared to the glossy new feathers.

Fun Facts

-> American Crows congregate in large numbers in winter to sleep in communal roosts. These roosts can be of a few hundred up to two million crows. Some roosts have been forming in the same general area for well over 100 years. In the last few decades, some of these roosts have moved into urban areas where the noise and mess cause conflicts with people.

-> Young American Crows do not breed until they are at least two years old, and most do not breed until they are four or more. In most populations the young help their parents raise young for a few years. Families may include up to 15 individuals and contain young from five different years.

-> In some areas, the American Crow has a double life. It maintains a territory year-round in which the entire extended family lives and forages together. But during much of the year, individual crows leave the home territory to join large flocks at dumps and agricultural fields, and to sleep in large roosts in winter. Family members go together to the flocks, but do not stay together in the crowd. A crow may spend part of the day at home with its family in town and the rest with a flock feeding on waste grain out in the country.

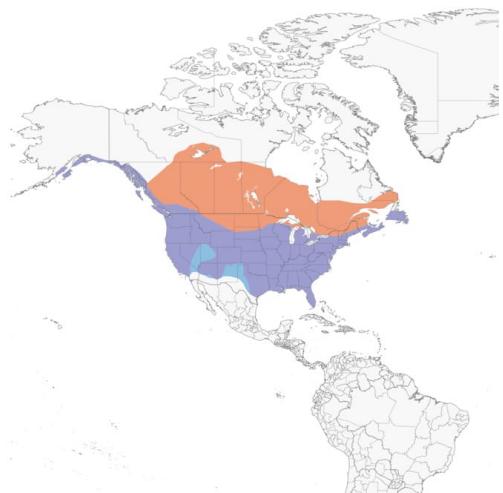
-> Despite its tendency to eat roadkill, the American Crow is not scavenger specialist, and carrion is only a very small part of its diet. Though their bills are large, crows can't break through the skin of even a gray squirrel. They must wait for something else to open a carcass or for the carcass to decompose and become tender enough to eat.

-> Crows are crafty foragers that sometimes follow adult birds to find where their nests are hidden. They sometimes steal food from other animals. A group of crows was seen distracting a river otter to steal its fish, and another group followed Common Mergansers to catch minnows the ducks were chasing into the shallows. They also sometimes follow songbirds as they arrive from a long migration flight and capture the exhausted birds. Crows also catch fish, eat from outdoor dog dishes, and take fruit from trees.

-> Crows sometimes make and use tools. Examples include a captive crow using a cup to carry water over to a bowl of dry mash; shaping a piece of wood and then sticking it into a hole in a fence post in search of food; and breaking off pieces of pine cone to drop on tree climbers near a nest.

-> The oldest recorded wild American Crow was at least 17 years 5 months old when it was photographed in Washington State. A captive crow in New York lived to be 59 years old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Large, all black bird with a slight gloss to the plumage, and a relatively long and thick bill.



Adult

Flies with a distinctive rowing motion, sometimes incorporating glides.



Adult

Darkness and glossiness of the plumage depend on lighting conditions.



Adult

Along the coastlines often forages at the water's edge.



Adult

Will mob raptors and other perceived threats. Note short and rounded or squared tail.



Adult

Often mobbed by smaller birds.



Adult

Frequently forages at landfills and other areas with garbage.

Common Raven

Bird Characteristics

Scientific Name: *Corvus corax*

Order: Passeriformes

Family Name: Corvidae

Conservation Status: Low Concern

Length: 22.1-27.2 in (56-69 cm)

Weight: 24.3-57.3 oz (689-1625 g)

Wingspan: 45.7-46.5 in (116-118 cm)

Basic Description: The intriguing Common Raven has accompanied people around the Northern Hemisphere for centuries, following their wagons, sleds, sleighs, and hunting parties in hopes of a quick meal. Ravens are among the smartest of all birds, gaining a reputation for solving ever more complicated problems invented by ever more creative scientists. These big, sooty birds thrive among humans and in the back of beyond, stretching across the sky on easy, flowing wingbeats and filling the empty spaces with an echoing croak.

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1 brood

Egg Length: 1.7-2.0 in (4.4-5.2 cm)

Egg Width: 1.2-1.4 in (3.1-3.6 cm)

Incubation Period: 20-25 days

Nestling Period: 28-50 days

Egg Description: Green, olive, or blue, often mottled with dark greenish, olive, or purplish brown.

Condition at Hatching: Naked except for sparse tufts of grayish down, eyes closed, clumsy, and looking like “grotesque gargoyles” according to a 1945 description.

Nest Placement: Common Ravens build their nests on cliffs, in trees, and on structures such as power-line towers, telephone poles, billboards, and bridges. Cliff nests are usually under a rock overhang. Tree nests tend to be in a crotch high in the tree, but below the canopy and typically farther down in a tree than a crow's nest would be.

Nest Description: Males bring some sticks to the nest, but most of the building is done by females. Ravens break off sticks around 3 feet long and up to an inch thick from live plants to make up the nest base, or scavenge sticks from old nests. These sticks, and sometimes bones or wire as well, are piled on the nest platform or wedged into a tree crotch, then woven together into a basket. The female then makes a cup from small branches and twigs. The cup bottom is sometimes lined with mud, sheep's wool, fur, bark strips, grasses, and sometimes trash. The whole process takes around 9 days, resulting in an often uneven nest that can be 5 feet across and 2 feet high. The inner cup is 9-12 inches across and 5-6 inches deep. Nests are often reused, although not necessarily by the same birds, from year to year.

Bird Information

Habitat: Common Ravens occur over most of the Northern Hemisphere in nearly any habitat (eastern forests and the open Great Plains are exceptions). These include coniferous and deciduous forests, beaches, islands, chaparral, sagebrush, mountains, desert, grasslands, agricultural fields, tundra, and ice floes. They do well around human habitations including farms, rural settlements and isolated houses. In larger towns they are often replaced by American Crows, although they do occur in some cities including Los Angeles. Human presence has allowed ravens to expand into areas where they didn't previously occur, such as using artificial ponds and irrigation to survive in deserts and living on human garbage in some forests. Common Ravens are slowly moving back into the forests of the northeastern United States and Canada as those forests regenerate.

Food: Common Ravens will eat almost anything they can get hold of. They eat carrion; small animals from the size of mice and baby tortoises up to adult Rock Pigeons and nestling Great Blue Herons; eggs; grasshoppers, beetles, scorpions, and other arthropods; fish; wolf and sled-dog dung; grains, buds, and berries; pet food; and many types of human food including unattended picnic items and garbage.

Behavior: Common Ravens are so bold, playful, and clever that they're almost always doing something worth watching. They're less gregarious than crows, often seen alone or in pairs that stay together year round, although many may gather at a carcass or landfill. Large groups of ravens are probably young birds that have yet to pair up; ravens begin breeding at ages 2 to 4. On the ground ravens walk confidently, sometimes with a swagger, sometimes sidling. In flight they're more graceful and agile than crows, which often appear to be swimming across the sky compared to a raven's light wingbeats and occasional soaring. Ravens often perform aerobatics, including sudden rolls, wing-tucked dives, and playing with objects by dropping and catching them in midair. Known for their intelligence, Common Ravens can work together to solve novel problems. They sometimes follow people and possibly female cowbirds to find nests to raid. (Ravens have followed researchers as they set up artificial nests, raiding them

soon after the researchers left.) Young ravens just out of the nest pick up and examine almost anything new they run across as they learn what's useful and what isn't. Ravens that find a big food supply (such as a large carcass or unguarded seabird nests) often cache some for later, the way other crows and jays store seeds.

Conservation: Common Raven populations increased across the continent between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates their global breeding population to be 20 million with 18% living in Canada, 9% in the U.S., and 3% in Mexico. They rate a 6 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Common Ravens are entirely black, right down to the legs, eyes, and beak.

Fun Facts

-> The Common Raven is an acrobatic flier, often doing rolls and somersaults in the air. One bird was seen flying upside down for more than a half-mile. Young birds are fond of playing games with sticks, repeatedly dropping them, then diving to catch them in midair.

-> Breeding pairs of Common Ravens hold territories and try to exclude all other ravens throughout the year. In winter, young ravens finding a carcass will call other ravens to the prize. They apparently do this to overwhelm the local territory owners by force of numbers to gain access to the food.

-> Common Ravens are smart, which makes them dangerous predators. They sometimes work in pairs to raid seabird colonies, with one bird distracting an incubating adult and the other waiting to grab an egg or chick as soon as it's uncovered. They've been seen waiting in trees as ewes give birth, then attacking the newborn lambs.

-> They also use their intellect to put together cause and effect. A study in Wyoming discovered that during hunting season, the sound of a gunshot draws ravens in to investigate a presumed carcass, whereas the birds ignore sounds that are just as loud but harmless, such as an airhorn or a car door slamming.

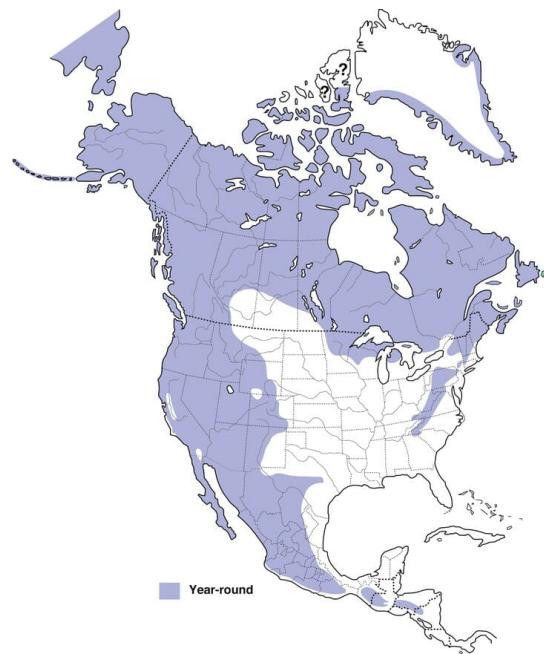
-> People the world over sense a certain kind of personality in ravens. Edgar Allan Poe clearly found them a little creepy. The captive ravens at the Tower of London are beloved and perhaps a little feared: legend has it that if they ever leave the tower, the British Empire will crumble. Native people of the Pacific Northwest regard the raven as an incurable trickster, bringing fire to people by stealing it from the sun, and stealing salmon only to drop them in rivers all over the world.

-> Increasing raven populations threaten some vulnerable species including desert tortoises, Marbled Murrelets, and Least Terns. Ravens can cause trouble for people too. They've been implicated in causing power outages by contaminating insulators on power lines, fouling satellite dishes at the Goldstone Deep Space Site, peeling radar absorbent material off buildings at the Chinal Lake Naval Weapons center, pecking holes in airplane wings, stealing golf balls, opening campers' tents, and raiding cars left open at parks.

-> Common Ravens can mimic the calls of other bird species. When raised in captivity, they can even imitate human words; one Common Raven raised from birth was taught to mimic the word "nevermore."

-> The oldest known wild Common Raven was at least 22 years, 7 months old. It was banded and found in Nova Scotia.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large, thick-necked bird with a hefty bill and a shaggy neck.



Adult

In flight, note wedge-shaped tail.



Juvenile

Juveniles have dull brown breast and chest feathers.



None
None



Juvenile
None



None
None



Adult
Bill is long and heavy with feathers extending down bill.



Adult (with American Crow)

Larger than an American Crow with a wedge-shaped tail.



Juvenile

Nests on cliffs, in trees, and on structures such as power-line towers, telephone poles, billboards, and bridges. Found in North America, Europe, Asia, and North Africa.



Adult

Large, entirely black bird. Occurs over most of the Northern Hemisphere in nearly any habitat.



Flock

Often forms communal nocturnal roosts and forages in groups especially at landfills or near a carcass.



Habitat

None

Horned Lark

Bird Characteristics

Scientific Name: *Eremophila alpestris*

Order: Passeriformes

Family Name: Alaudidae

Conservation Status: Common Bird in Steep Decline

Length: 6.3-7.9 in (16-20 cm)

Weight: 1.0-1.7 oz (28-48 g)

Wingspan: 11.8-13.4 in (30-34 cm)

Basic Description: Look carefully at a bare, brown field, especially in winter, and you may be surprised to see it crawling with little brown shapes. When they turn, you may see a neat yellow face, black mask, and tiny black “horns” waving in the breeze. Horned Larks are widespread songbirds of fields, deserts, and tundra, where they forage for seeds and insects, and sing a high, tinkling song. Though they are still common, they have undergone a sharp decline in the last half-century.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1-3 broods

Egg Length: 0.7-1.0 in (1.8-2.6 cm)

Egg Width: 0.5-0.8 in (1.3-1.9 cm)

Incubation Period: 11-12 days

Nestling Period: 8-10 days

Egg Description: Dark pearl gray to pale gray spotted with cinnamon brown or brownish-olive.

Condition at Hatching: Helpless, covered in buffy down.

Nest Placement: The female Horned Lark selects a nest site on bare ground, apparently with no help from her mate. She either chooses a natural depression in which to build the nest or

excavates the site herself, a process that can take a couple of days. To dig a cavity, she uses her bill to loosen soil and flip it aside, sometimes also kicking dirt out with her feet.

Nest Description: The Horned Lark's nest is a basket woven of fine grass or other plant materials and lined with finer material. Two to four days after preparing the site, she begins weaving her nest from grass, small roots, shredded cornstalks, and other plant material, then lines it with down, fur, feathers, fine rootlets, even lint and string. The nest cavity diameter is about 3–4 inches; the inside nest diameter is about 2.5 inches and its depth about 1.5 inches.

Bird Information

Habitat: Horned Larks favor bare, dry ground and areas of short, sparse vegetation; they avoid places where grasses grow more than a couple of inches high. Common habitats include prairies, deserts, tundra, beaches, dunes, and heavily grazed pastures. Horned Larks also frequent areas cleared by humans, such as plowed fields and mowed expanses around airstrips. In wintertime, flocks of Horned Larks, often mixing with other birds of open ground, can be seen along roadsides, in feedlots, and on fields spread with waste grain and manure. At high altitudes and latitudes, Horned Larks forage on snowfields in the late afternoon, though they mostly feed in areas free of snow.

Food: Horned Larks eat seeds and insects. They feed their nestlings mostly insects, which provide the protein the young birds need to grow. Insect prey are mainly grasshoppers, beetles, and caterpillars. Chicks may also be fed invertebrates such as sowbugs and earthworms. Horned Larks glean most of their food from the ground, but they sometimes perch on plants to harvest seeds from seed heads. In agricultural fields they may pluck and eat sprouting lettuce, wheat, and other crop seedlings.

Behavior: Horned Larks forage in pairs or small groups during breeding season, but form large nomadic flocks in winter—often mixing with other bird species, including Tree Sparrows, Dark-eyed Juncos, Lapland Longspurs, and Snow Buntings. Horned Larks walk or run over open ground as they search for seeds and insects. Males often sing in flight, probably as part of courtship or territorial defense. During the breeding season, males defend turf against intruding males, and females occasionally repel intruding females. Fighting pairs fly at each other, rising up to 50 feet straight up into the air, pecking and clawing. On the ground, battling males strike at each other with extended wings. As ground nesters, Horned Larks and their eggs and young are vulnerable to predation by birds and by mammals—including meadow voles, shrews, deer mice, weasels, skunks, and raccoons. A nesting female conceals her location by leaving the nest stealthily and flying silently near the ground; she is reluctant to return while potential predators lurk nearby. If repeatedly flushed from her nest, she performs a distraction display, fluttering up and landing about a foot from the nest in a crouched posture with her wings spread, sometimes uttering soft distress calls. If she is followed, she walks rapidly away from the nest before flying. On hot days, foraging individuals follow the shade of tall objects such as power poles and fence posts; females stand over the nest with wings held away from their bodies to shade eggs and chicks from the sun.

Conservation: Horned Larks are numerous but their populations declined by over 2% per year between 1966 and 2015, resulting in a cumulative decline of 71%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 120 million, with 62% spending some part of the year in the U.S., 17% in Canada, and 9% wintering in Mexico. The species rates a 9 out of 20 on the Continental Concern Score. Horned Lark is not on the

Color Pattern: Male Horned Larks are sandy to rusty brown above, with a black chest band, a curving black mask, and head stripes that extend to the back of the head (sometimes raised into tiny “horns”). The face and throat are either yellow or white (see Regional Differences). The underparts are white. Females have similar head and breast patterns but are less crisply defined.

Fun Facts

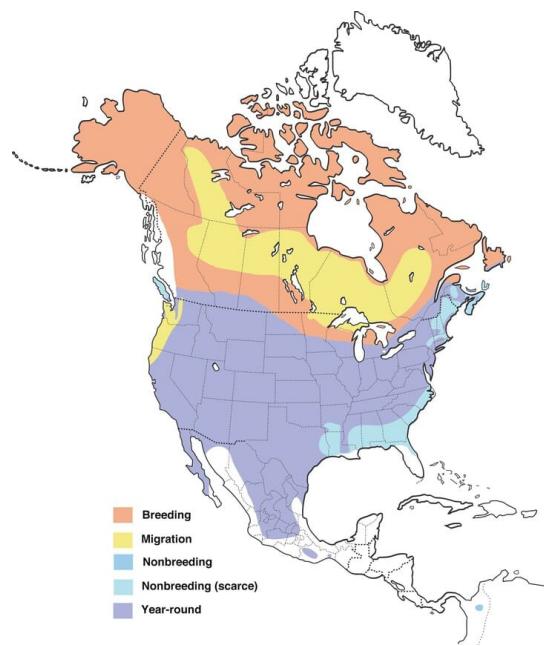
-> Horned Larks inhabit an extensive elevation range, from sea level to an altitude of 13,000 feet. Linnaeus named this bird

-> Female Horned Larks often collect “pavings”—pebbles, clods, corncobs, dung—which they place beside their nests, covering soil excavated from the nest cavity. The “paved” area resembles a sort of walkway, though the birds don’t seem to use it that way. While nobody fully understands the function of these pavings, they may help prevent collected nesting material from blowing away while the nest is under construction.

-> When she is ready to mate, a female Horned Lark performs a courting display that looks very much as if she is taking a dust bath. In fact, potential mates seem prone to confusion on this score: a male catching a glimpse of a dust-bathing female may attempt to mate with her.

-> The longest-lived Horned Lark on record in North America was a male, and at least 7 years, 11 months old when he was recaptured and rereleased during banding operations in Colorado in 1983, the same state where he had been banded.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male

Small, sparrowlike bird with a long body and a small bill. Brownish above and pale below with a black chest band. Males have a black mask and variable amounts of yellow on the head and throat. Also note tiny hornlike feathers that sometimes stick straight up on the head.



Female

Females lack the male's black mask and are generally paler, with only a slight yellow wash on the throat and a brown breast band.



Female

Small songbird with a small head and bill. Females have a pale yellow wash on the throat and a dusky breast band. They lack the male's black eye patch.



Juvenile

Juveniles are brown overall with white-edged feathers and a brown breast band.



Juvenile

None



Male

Males have tiny hornlike feathers on top of the head that can be raised and lowered.



Male

Sandy to rusty brown above with a black tail that is especially noticeable in flight. Back and throat color vary across the range from rusty to sandy and from pale yellow to bright yellow.



Male

Slender sparrowlike bird with a small head and bill. Males have a black mask, black breast band, and yellow throat. Their namesake horns are not always visible.



Male

None



Male
None



Immature male
None



Immature male
None



Female/immature
None



Habitat

Found in open country with very short or no vegetation, including bare agricultural fields. Often difficult to spot on bare ground thanks to their small size and brown and sandy-colored backs.

Purple Martin

Bird Characteristics

Scientific Name: *Progne subis*

Order: Passeriformes

Family Name: Hirundinidae

Conservation Status: Low Concern

Length: 7.5-7.9 in (19-20 cm)

Weight: 1.6-2.1 oz (45-60 g)

Wingspan: 15.3-16.1 in (39-41 cm)

Basic Description: Putting up a Purple Martin house is like installing a miniature neighborhood in your backyard. In the East, dark, glossy-blue males and brown females will peer from the entrances and chirp from the rooftops all summer. In the West, martins mainly still nest the old-fashioned way—in woodpecker holes. Our largest swallows, Purple Martins perform aerial acrobatics to snap up flying insects. At the end of the breeding season they gather in big flocks and make their way to South America.

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-1.1 in (2.1-2.7 cm)

Egg Width: 0.6-0.8 in (1.6-1.9 cm)

Incubation Period: 15-18 days

Nestling Period: 27-36 days

Egg Description: Pure white and smooth.

Condition at Hatching: Weak, with completely bare pink skin.

Nest Placement: Both males and females visit several cavities before choosing a site (a female chooses her mate largely based on the nest site he occupies). The cavity is usually in a

birdhouse, gourd, dead tree, saguaro cactus, building, or cliff, but sometimes in other structures like traffic lights, street lamps, dock pilings, or oil pumps. Birdhouses are variable but most are made of wood or aluminum, contain 8–12 rooms, and hang from wires or sit atop poles in open areas.

Nest Description: Nests in birdhouses, hole in tree, hole in cactus, or crevice in cliff or building. Nest made of twigs, plant stems, mud, and grass.

Bird Information

Habitat: Purple Martins forage over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas. In eastern North America they used to breed along forest edges and rivers, where dead snags offered woodpecker holes to nest in. But since humans began supplying nest boxes for them, eastern martins have become urbanites, living almost exclusively near cities and towns. In the West, martins have stuck with woodpecker holes in mountain forests or Pacific lowlands. Purple Martin wintering grounds are savannas and agricultural fields in Bolivia, Brazil, and elsewhere in South America. At night, wintering martins flock into cities and towns to roost, often in the trees of village plazas.

Food: A year-round insectivore, the Purple Martin eats flying insects at altitudes higher than other swallows, often exceeding 150 feet and sometimes 500 feet or more off the ground. When they encounter prey, they turn suddenly sideways or upward, speed up, and then flare their tails as they trap the insect. Their menu includes beetles, flies, dragonflies, damselflies, leafhoppers, grasshoppers, crickets, butterflies, moths, wasps, bees, caddisflies, spiders, cicadas, termites, and mayflies. They feed during the day, rarely in groups but often in pairs (probably so the male can guard the female from mating with other males). Martins pick up small bits of gravel to help them digest insect exoskeletons.

Behavior: Purple Martins fly with quick flaps and glides, outlining big circles in the sky as they hunt insects. They rarely land on the ground except to collect nesting material and pick up grit to aid their digestion. Males defend small nesting (but not foraging) territories from other males and females do the same with other females. In eastern populations, each territory includes several compartments within a bird house (and occasionally several bird houses), but most birds gradually give up portions of their territory as more and more males arrive. The female usually defends a smaller territory, which usually shrinks down to the size of its own nest compartment by egg-laying time. Physical fights usually only break out if one bird goes into another bird's nest compartment. Martins pair up with one male and one female per nest, but sometimes two females may settle into different compartments of one male's territory. Both sexes frequently mate outside of their pair bond. Adults form flocks as soon as nestlings fledge, and congregate in large roosts throughout the winter.

Conservation: Purple Martins are fairly common birds (especially in the Southeast), but their numbers declined by almost 1% per year between 1966 and 2015, resulting in a cumulative decline of 37%, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 7 million with 90% breeding in or migrating through

the U.S., 7 % in Mexico, and 3% breeding in Canada. The species rates an 9 out of 20 on the Continental Concern Score. Purple Martin is not on the

Color Pattern: Adult males are iridescent, dark blue-purple overall with brown-black wings and tail. Females and immatures are duller, with variable amounts of gray on the head and chest and a whitish lower belly.

Fun Facts

-> Despite the term "scout" used for the first returning Purple Martins, the first arriving individuals are not checking out the area to make sure it is safe for the rest of the group. They are the older martins returning to areas where they nested before. Martins returning north to breed for their first time come back several weeks later. The earlier return of older individuals is a common occurrence in species of migratory birds.

-> The Purple Martin not only gets all its food in flight, it gets all its water that way too. It skims the surface of a pond and scoops up the water with its lower bill.

-> The

-> Putting up martin houses used to be so common that John James Audubon used them to choose his lodgings for the night. In 1831, he remarked, "Almost every country tavern has a martin box on the upper part of its sign-board; and I have observed that the handsomer the box, the better does the inn generally prove to be."

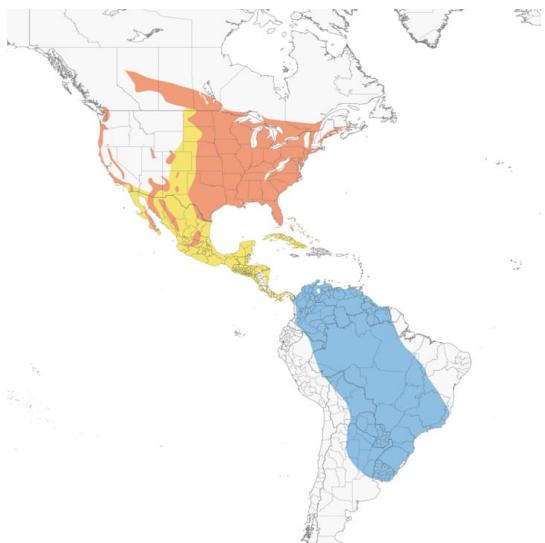
-> Native Americans hung up empty gourds for the Purple Martin before Europeans arrived in North America. Purple Martins in eastern North America now nest almost exclusively in birdhouses, but those in the West use mostly natural cavities.

-> European Starlings and House Sparrows often push Purple Martins out of local areas by taking over all of the nest sites, including houses that people put up specifically for the martins.

-> Purple Martins roost together by the thousands in late summer, as soon as the chicks leave the nest. They form such dense gatherings that you can easily see them on weather radar. It's particularly noticeable in the early morning as the birds leave their roosts for the day, and looks like an expanding donut on the radar map.

-> The oldest Purple Martin on record was at least 13 years, 9 months old, banded in 1933 and found in 1947. It lived in Illinois.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large, broad-chested swallow with a slightly hooked bill and long, tapered wings. Adult males are iridescent, dark blue-purple overall with brown-black wings and tail.



Female/immature male

Large and chunky swallow. Females/immatures are duller, with variable amounts of gray on the head and chest and a dingy lower belly. Note gray collar around the neck.



Male and female

None



Adult male

In flight, note long, tapered wings and forked tail. Adult males are dark purplish overall, but often appear black.



Female/immature male

Females/immatures in flight look brownish below with a paler speckled belly.



Female/immature male

Large and long-bodied with a small head and bill. Females/immatures are duller, with variable amounts of gray on the head and chest and a dingy lower belly with variable amounts of speckling.



Adult male

In the East, nests with other Purple Martins in artificial nest boxes clustered together in groups.



Female/immature male

None



Male and female

None



Adult female

In the West, nests in holes in trees with dozens of martins nesting nearby.



Habitat

None

Cliff Swallow

Bird Characteristics

Scientific Name: *Petrochelidon pyrrhonota*

Order: Passeriformes

Family Name: Hirundinidae

Conservation Status: Low Concern

Length: 5.1 in (13 cm)

Weight: 0.7-1.2 oz (19-34 g)

Wingspan: 11.0-11.8 in (28-30 cm)

Basic Description: Busy flocks of Cliff Swallows often swarm around bridges and overpasses in summer, offering passers-by a chance to admire avian architecture and family life at once. Clusters of their intricate mud nests cling to vertical walls, and when a Cliff Swallow is home you can see its bright forehead glowing from the dim entrance. These common, sociable swallows are nearly always found in large groups, whether they're chasing insects high above the ground, preening on perches, or dipping into a river for a bath.

Nesting Characteristics

Clutch Size: 1-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.9 in (1.8-2.4 cm)

Egg Width: 0.5-0.6 in (1.3-1.5 cm)

Incubation Period: 10-19 days

Nestling Period: 20-26 days

Egg Description: White, creamy, or pinkish, with brown speckles or blotches.

Condition at Hatching: Helpless, with bare pink skin, weighing less than a tenth of an ounce each.

Nest Placement: Each Cliff Swallow pair first chooses a colony, then takes over an existing

nest or selects a space on the colony to build a new nest. Colonies may be located on cliffsides, caves, building eaves, bridges, highway culverts, dams, or large trees, and each nest is built at the juncture between a vertical wall and a horizontal overhang. The female spends more time than the male scoping out colony sites before they settle on one. An unmated male may choose a site on his own and later attract a mate.

Nest Description: Both sexes help build the nest, though the male may begin building before he attracts a mate. They gather mud in their bills along streambanks, lakesides, or puddles, usually near the colony but sometimes up to a few miles distant. They bring mud pellets back in their bills and mold them into place with a shaking motion. The finished nest is gourd shaped and contains 900–1,200 individual mud pellets. It measures about 8 inches long, 6 inches wide and 4.5 inches high, with walls 0.2–0.7 inches thick. The entrance, which is sometimes elongated into a tube, is about 1.7 inches high and 2 inches wide. The pair lines their nest with dried grass and continues patching it up with mud throughout the breeding season.

Bird Information

Habitat: Formerly restricted to canyons, foothills, and river valleys with natural cliff faces and overhangs, Cliff Swallows have spread into a wide variety of habitats by nesting on buildings, bridges, and other human-made structures. They now live in grasslands, towns, broken forest, and river edges, but avoid heavy forest and deserts. In the south-central and northeastern states they are rare and localized breeders. Most colony sites are close to a water source, open fields or pastures for foraging, and a source of mud for nest building. Cliff Swallows spend the winter in grasslands, farmland, marshes, and the outskirts of towns in southern South America.

Food: Cliff Swallows eat flying insects all year round, foraging during the day in groups of 2 to more than 1,000 birds. They feed on the wing above grassy pastures, plowed fields, and other open areas, but also over floodplain forests, canyons, and towns—often taking advantage of thermal air currents that bring together dense swarms of insects. In cool or rainy weather when insects are scarcer and thermals weaker, they may also feed over lakes, ponds, and rivers. Cliff Swallow colonies serve as foraging information centers as parents make trips back and forth to feed nestlings: unsuccessful foragers follow their successful neighbors to food sources. Their diet consists of many types of flying insects (particularly swarming species), including bugs, flies, bees, wasp, ants, beetles, lacewings, mayflies, butterflies, moths, grasshoppers, crickets, dragonflies, and damselflies.

Behavior: Cliff Swallows are the most colonial swallow in the world, regularly forming colonies of 200-1,000 nests, with a maximum of 3,700 nests in one Nebraska site. They preen, feed, drink, and bathe in groups, and they continue sticking together in large flocks during migration and on their wintering grounds. Cliff Swallows sleep in trees for most of the year, but a breeding bird will start sleeping in the nest as soon as the structure is partially finished. They fight for nest sites by grappling in half-built nests or on the bare wall. Fighting birds sometimes fall into the water and manage to row with their wings to reach the shore. Nest owners defend

their completed nests by sitting in the entrances, puffing up their head and neck feathers to look larger, and lunging at intruders. Each bird has one mate with whom it raises young, but the pair does not associate away from the nest, and both members frequently mate outside the pair bond. Cliff Swallow predators include Sharp-shinned Hawks, American Kestrels, Prairie Falcons, Peregrine Falcons, Barn Owls, Great Horned Owls, Mississippi Kites, Black-billed Magpies, Loggerhead Shrikes, Common Grackles, Acorn Woodpeckers, Red-headed Woodpeckers, bull snakes, rat snakes, coachwhip snakes, rattlesnakes, fire ants, mink, and domestic cats.

Conservation: Cliff Swallows are numerous and their populations were stable between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 40 million, with 79% breeding in the U.S., 12% in Canada, and 9% in Mexico. The species rates a 7 out of 20 on the Continental Concern Score. Cliff Swallow is not on the

Color Pattern: In poor light, Cliff Swallows look brownish with dark throats and white underparts. In good light you'll see their metallic, dark-blue backs and pale, pumpkin-colored rumps. They have rich, brick-red faces and a bright buff-white forehead patch like a headlamp. Some juveniles show whitish throats in summer and fall.

Fun Facts

-> When a Cliff Swallow has had a hard time finding food, it will watch its neighbors in the nesting colony and follow one to food when it leaves. Although sharing of information about food at the colony seems unintentional, when a swallow finds food away from the colony during poor weather conditions it may give a specific call that alerts other Cliff Swallows that food is available. By alerting other swallows to a large insect swarm an individual may ensure that the swarm is tracked and that it can follow the swarm effectively.

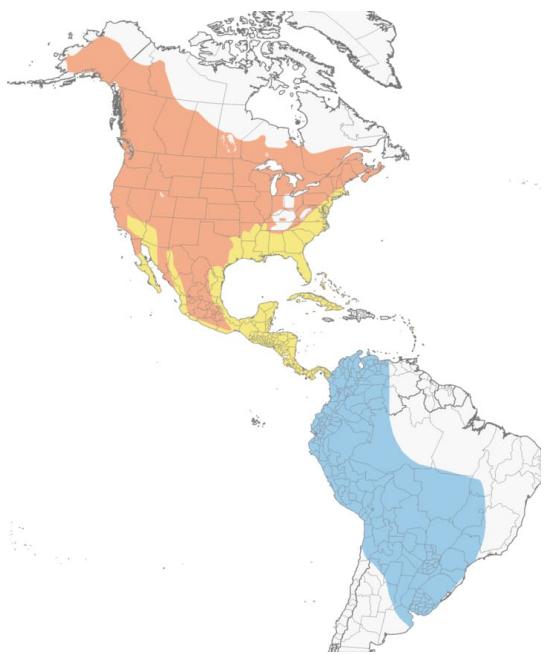
-> Although the Cliff Swallow can nest solitarily, it usually nests in colonies. Colonies tend to be small in the East, but further west they can number up to 3,700 nests in one spot.

-> Within a Cliff Swallow colony some swallows lay eggs in another swallow's nest. Sometimes the swallow may lay eggs in its own nest and then carry one of its eggs in its bill and put it in another female's nest.

-> When young Cliff Swallows leave their nests they congregate in large groups called creches. A pair of swallows can find its own young in the creche primarily by voice. Cliff Swallows have one of the most variable juvenal plumages, and the distinctive facial markings may help the parents recognize their chicks by sight too.

-> The oldest recorded Cliff Swallow was a male, and at least 11 years, 10 months old when he was recaptured and rereleased for scientific purposes in California in 2004. He had been banded in Nebraska in 1993.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Compact swallow with pointed, broad pointed wings, a small head, and a squared tail. In good light, adults have metallic, dark-blue backs and pale, cinnamon rumps. Their face is rusty with a white forehead.



Adult

None



Adult

Compact swallow with a small head and squared tail. In flight note, pale rump patch and collar.



Adult
None



Juvenile
Juveniles look like messy adults with rusty or brown faces and a dingy breast.



Adult
Adults are dark blue above, but appear black in poor light. Key identification features include the pale rump and forehead and rusty cheeks.



Juvenile
None



Adult (melanogaster)
None



Flock
Groups gather mud in their bills along streambanks, lakesides, or puddles to build their nests.



Habitat
Builds mud nests in colonies on cliff ledges or under bridges, eaves, and culverts.

Barn Swallow

Bird Characteristics

Scientific Name: *Hirundo rustica*

Order: Passeriformes

Family Name: Hirundinidae

Conservation Status: Low Concern

Length: 5.9-7.5 in (15-19 cm)

Weight: 0.6-0.7 oz (17-20 g)

Wingspan: 11.4-12.6 in (29-32 cm)

Basic Description: Glistening cobalt blue above and tawny below, Barn Swallows dart gracefully over fields, barnyards, and open water in search of flying insect prey. Look for the long, deeply forked tail that streams out behind this agile flyer and sets it apart from all other North American swallows. Barn Swallows often cruise low, flying just a few inches above the ground or water. True to their name, they build their cup-shaped mud nests almost exclusively on human-made structures.

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.6-2.1 cm)

Egg Width: 0.5-0.6 in (1.2-1.5 cm)

Incubation Period: 12-17 days

Nestling Period: 15-27 days

Egg Description: Creamy or pinkish white, spotted with brown, lavender, and gray.

Condition at Hatching: Eyes closed, naked except for sparse tufts of pale gray down.

Nest Placement: Barn Swallow pairs explore a number of potential nesting spots, flying up and hovering to investigate a location, then moving to another site before narrowing their choice.

Preferred sites include eaves, rafters, and cross beams of barns, sheds and stables, as well as the undersides of bridges, wharfs, and culverts. They may also use nests from previous years, but avoid those infested heavily with mites or other parasites.

Nest Description: Both male and female build the nest cup using mud. They collect mud in their bills and often mix it with grass stems to make pellets. They first construct a small shelf to sit on, then build up the nest's sides. If built against a wall or other vertical surface the result is a semicircular, half-cup shape. Nests built on top of a beam or other horizontal surface form a complete cup about 3 inches across at the rim and 2 inches deep. The birds line the cup first with grass, then feathers, and in colonies may steal nest-lining materials from neighboring nests. When reusing nests, Barn Swallows clean out old feathers and add new mud to the nest's rim.

Bird Information

Habitat: Barn Swallows forage in open areas throughout most of the continent, including suburban parks and ball fields, agricultural fields, beaches, and over open water such as lakes, ponds and coastal waters. They range from sea level up to 10,000 feet. Breeding habitat must include open areas for foraging, structures or cliffs to build nests on, and a source of mud such as a riverbank to provide the material for building nests.

Food: Flies of all types make up the majority of the Barn Swallow's diet, along with beetles, bees, wasps, ants, butterflies, moths, and other flying insects. Barn Swallows usually take relatively large, single insects rather than feeding on swarms of smaller prey. They will also pick up grit and small pebbles, or eggshells and oyster shells set out by humans, which may help the birds digest insects or add needed calcium to the diet.

Behavior: Watch for the Barn Swallow's smooth, fluid wingbeats and the way they pull their wingtips back at the end of each stroke. These birds feed almost exclusively in flight, flying lower than many other swallow species and often nearly hugging the ground or water surface. They catch flies and other prey in midair above fields, marshes, lakes, and coastal waters, and often follow farm implements, cattle herds, and humans to snag flushed insects. They occasionally feed on sluggish or dead insects on the ground, and in cold weather will pluck flies off barn walls. Barn Swallows also drink and even bathe on the wing, dipping down to take a mouthful of water or touch their belly to the surface for a quick rinse. Males defend a small territory around the nest site and aggressively chase away other males, even grabbing them with their feet and tumbling to the ground. Individuals or groups of Barn Swallows mob predators such as hawks, gulls, or grackles that approach nests.

Conservation: Barn Swallow populations declined by over 1% per year from 1966 to 2014, resulting in a cumulative decline of 46%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 120 million with 24% spending some part of the year in the U.S., 2% in Mexico, and 4% breeding in Canada. They rate an 8 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Barn Swallows have a steely blue back, wings, and tail, and rufous to tawny underparts. The blue crown and face contrast with the cinnamon-colored forehead and throat. White spots under the tail can be difficult to see except in flight. Males are more boldly colored than females.

Fun Facts

-> An unmated male Barn Swallow may kill the nestlings of a nesting pair. His actions often succeed in breaking up the pair and afford him the opportunity to mate with the female.

-> The Barn Swallow is the most abundant and widely distributed swallow species in the world. It breeds throughout the Northern Hemisphere and winters in much of the Southern Hemisphere.

-> Barn Swallows once nested in caves throughout North America, but now build their nests almost exclusively on human-made structures. Today the only North American Barn Swallow population that still regularly uses caves as nest sites occurs in the Channel Islands off the California coast.

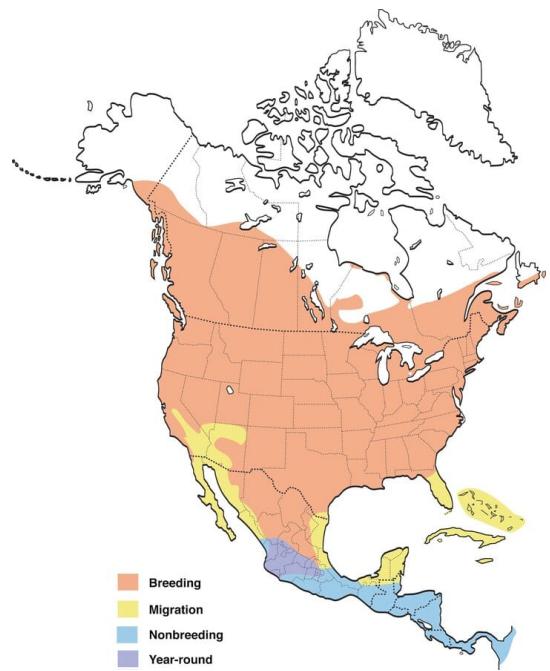
-> Barn Swallow parents sometimes get help from other birds to feed their young. These "helpers at the nest" are usually older siblings from previous clutches, but unrelated juveniles may help as well.

-> Although the killing of egrets is often cited for inspiring the U.S. conservation movement, it was the millinery (hat-making) trade's impact on Barn Swallows that prompted naturalist George Bird Grinnell's 1886

-> According to legend, the Barn Swallow got its forked tail because it stole fire from the gods to bring to people. An angry deity hurled a firebrand at the swallow, singeing away its middle tail feathers.

-> The oldest known Barn Swallow in North America was at least 10 years old, when it was recaptured and rereleased during a banding operation in Maryland.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult (American)

Sparrow-sized swallow with broad shoulders that taper to long, pointed wings. Adult males have a steely blue back, wings, and tail, and tawny underparts. The throat and forehead is rusty.



Adult (American)

Adults are brightly marked in deep blue, rusty, and cinnamon. Note long forked tail.



Adult (White-bellied)

European birds have a whitish belly and a thick blue band across the chest.



Adult (White-bellied)
None



Adult (Buff-bellied)
None



Adult (Tytler's)
None



Adult (Levant)
None



Adult (American)
Slender-bodied with a long, deeply forked tail. From below, the underparts vary from pale cinnamon or tawny to bright cinnamon.



Adult (American)
Flies with fluid wingbeats making quick turns and dives; rarely glides. Tail is long and deeply forked with a white band across it.



Adult (White-bellied)
None



Juvenile (American)

Juveniles are dark above and pale cinnamon below with rich rusty throat and forehead. Their tail is also shorter without the deep fork.



Immature (Egyptian)

None



Immature (Levant)

None



Juvenile (White-bellied)

Juveniles in Europe have a white belly and tawny throat. The tail is also shorter without the deep fork.



Juvenile (American)

None



Adult (American)

Long and slender with a deeply forked tail. The color of the underparts varies from buffy to rich cinnamon with the females typically having the paler underparts.



Adult (American)

Collects mud in bill to build a mud and grass nest—often tucked under the eaves of barns and stables, on structures near playing fields, or under bridges.



Flock (American)

Often seen in flocks in open habitats from fields, parks, and roadway edges to marshes, meadows, ponds, and coastal waters.

Black-capped Chickadee

Bird Characteristics

Scientific Name: *Poecile atricapillus*

Order: Passeriformes

Family Name: Paridae

Conservation Status: Low Concern

Length: 4.7-5.9 in (12-15 cm)

Weight: 0.3-0.5 oz (9-14 g)

Wingspan: 6.3-8.3 in (16-21 cm)

Basic Description: A bird almost universally considered “cute” thanks to its oversized round head, tiny body, and curiosity about everything, including humans. The chickadee’s black cap and bib; white cheeks; gray back, wings, and tail; and whitish underside with buffy sides are distinctive. Its habit of investigating people and everything else in its home territory, and quickness to discover bird feeders, make it one of the first birds most people learn.

Nesting Characteristics

Clutch Size: 1-13 eggs

Number of Broods: 1 brood

Egg Length: 0.6 in (1.5 cm)

Egg Width: 0.5 in (1.2 cm)

Incubation Period: 12-13 days

Nestling Period: 12-16 days

Egg Description: White with fine reddish-brown dots or spots.

Condition at Hatching: Eyes closed, naked except for 6 small patches of mouse-gray downy feathers on the back and head.

Nest Placement: Nest boxes, small natural cavities, or abandoned Downy Woodpecker cavities; often excavate their own cavities. In the case of nest boxes, seem to prefer to

excavate wood shavings or sawdust rather than to take an empty box. Nests can be at ground level to more than 20 m high, but are usually between 1.5 and 7 m high. They tend to excavate in dead snags or rotten branches, and often select alder or birch.

Nest Description: Both male and female chickadees excavate a cavity in a site usually selected by the female. Once the nest chamber is hollowed out (it averages 21 cm deep) the female builds the cup-shaped nest hidden within, using moss and other coarse material for the foundation and lining it with softer material such as rabbit fur.

Bird Information

Habitat: Chickadees are found in deciduous and mixed forests, open woods, parks, willow thickets, cottonwood groves, and disturbed areas.

Food: In winter Black-capped Chickadees eat about half seeds, berries, and other plant matter, and half animal food (insects, spiders, suet, and sometimes fat and bits of meat from frozen carcasses). In spring, summer, and fall, insects, spiders, and other animal food make up 80-90 percent of their diet. At feeders they take mostly sunflower seeds, peanuts, suet, peanut butter, and mealworms. They peck a hole in the shell, and then chip out and eat tiny bits of seed while expanding the hole.

Behavior: Chickadees are active, acrobatic, curious, social birds that live in flocks, often associating with woodpeckers, nuthatches, warblers, vireos, and other small woodland species. They feed on insects and seeds, but seldom perch within several feet of one another while taking food or eating. Flocks have many calls with specific meanings, and they may contain some of the characteristics of human language.

Conservation: Black-capped Chickadees are common and overall populations increased slightly between 1966 and 2015, according to the North American Breeding Bird Survey. Their western populations slightly declined during this time, but the loss was made up by an increase in eastern populations. Partners in Flight estimates the global breeding population at 41 million, with 54% living in Canada, and 46% in the U.S. The species rates a 7 out of 20 on the Continental Concern Score and is not on the

Color Pattern: The cap and bib are black, the cheeks white, the back soft gray, the wing feathers gray edged with white, and the underparts soft buffy on the sides grading to white beneath. The cap extends down just beyond the black eyes, making the small eyes tricky to see.

Fun Facts

-> The Black-capped Chickadee hides seeds and other food items to eat later. Each item is placed in a different spot and the chickadee can remember thousands of hiding places.

-> Every autumn Black-capped Chickadees allow brain neurons containing old information to die, replacing them with new neurons so they can adapt to changes in their social flocks and environment even with their tiny brains.

-> Chickadee calls are complex and language-like, communicating information on identity and recognition of other flocks as well as predator alarms and contact calls. The more

-> Winter flocks with chickadees serving as the nucleus contain mated chickadee pairs and nonbreeders, but generally not the offspring of the adult pairs within that flock. Other species that associate with chickadee flocks include nuthatches, woodpeckers, kinglets, creepers, warblers and vireos.

-> Most birds that associate with chickadee flocks respond to chickadee alarm calls, even when their own species doesn't have a similar alarm call.

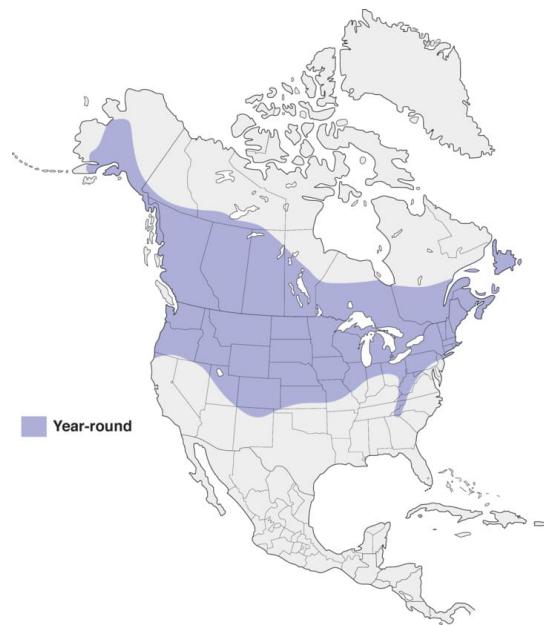
-> There is a dominance hierarchy within flocks. Some birds are "winter floaters" that don't belong to a single flock—these individuals may have a different rank within each flock they spend time in.

-> Even when temperatures are far below zero, chickadees virtually always sleep in their own individual cavities. In rotten wood, they can excavate nesting and roosting holes entirely on their own.

-> Because small songbirds migrating through an unfamiliar area often associate with chickadee flocks, watching and listening for chickadee flocks during spring and fall can often alert birders to the presence of interesting migrants.

-> The oldest known wild Black-capped Chickadee was a male and at least 11 years, 6 months old when it was recaptured and rereleased during banding operations in Minnesota in 2011. It had been banded in the same state in 2002.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Small and compact, with a thin, short bill. Black cap and bib contrast with white cheeks, gray back and wings, and light buffy underparts.



Adult

Often moves acrobatically through small branches, and can perch sideways or upside-down.



Adult

Bold black-and-white head pattern strongly contrasts with the rest of the plumage.



Adult

Small bill and long tail impart a compact, rotund look. Note white-edged secondaries.



Adult

Forages for seeds both on wild plants and bird feeders.



Adult

Nests in holes in trees and nest boxes. Occurs in a wide variety of wooded and shrubby habitats.

Tufted Titmouse

Bird Characteristics

Scientific Name: *Baeolophus bicolor*

Order: Passeriformes

Family Name: Paridae

Conservation Status: Low Concern

Length: 5.5-6.3 in (14-16 cm)

Weight: 0.6-0.9 oz (18-26 g)

Wingspan: 7.9-10.2 in (20-26 cm)

Basic Description: A little gray bird with an echoing voice, the Tufted Titmouse is common in eastern deciduous forests and a frequent visitor to feeders. The large black eyes, small, round bill, and brushy crest gives these birds a quiet but eager expression that matches the way they flit through canopies, hang from twig-ends, and drop in to bird feeders. When a titmouse finds a large seed, you'll see it carry the prize to a perch and crack it with sharp whacks of its stout bill.

Nesting Characteristics

Clutch Size: 3-9 eggs

Number of Broods: 1 brood

Egg Length: 0.7-0.8 in (1.7-2 cm)

Egg Width: 0.6-0.6 in (1.4-1.6 cm)

Incubation Period: 12-14 days

Nestling Period: 15-16 days

Egg Description: White to creamy white, spotted with chestnut-red, brown, purple, or lilac.

Condition at Hatching: Almost entirely naked and pink, with tufts of down on head and along spine, eyes closed.

Nest Placement: Tufted Titmice nest in cavities but aren't able to excavate them on their own.

They use natural holes and old nest holes made by several woodpecker species, including large species such as Pileated Woodpecker and Northern Flicker. Additionally, Tufted Titmice also nest in artificial structures including nest boxes, fenceposts, and metal pipes.

Nest Description: Titmice build cup-shaped nests inside the nest cavity using damp leaves, moss and grasses, and bark strips. They line this cup with soft materials such as hair, fur, wool, and cotton, sometimes plucking hairs directly from living mammals. Naturalists examining old nests have identified raccoon, opossum, dog, fox squirrel, red squirrel, rabbit, horse, cow, cat, mouse, woodchuck, and even human hair in titmouse nests. Nest construction takes 6 to 11 days.

Bird Information

Habitat: Tufted Titmice live in deciduous woods or mixed evergreen-deciduous woods, typically in areas with a dense canopy and many tree species. They are also common in orchards, parks, and suburban areas. Generally found at low elevations, Tufted Titmice are rarely reported at elevations above 2,000 feet.

Food: Tufted Titmice eat mainly insects in the summer, including caterpillars, beetles, ants and wasps, stink bugs, and treehoppers, as well as spiders and snails. Tufted Titmice also eat seeds, nuts, and berries, including acorns and beech nuts. Experiments with Tufted Titmice indicate they always choose the largest seeds they can when foraging.

Behavior: Tufted Titmice flit from branch to branch of the forest canopy looking for food, often in the company of other species including nuthatches, chickadees, kinglets, and woodpeckers. When they find large seeds, such as the sunflower seeds they take from bird feeders, titmice typically hold the seed with their feet and hammer it open with their beaks. In fall and winter they often hoard these shelled seeds in bark crevices. These acrobatic foragers often hang upside down or sideways as they investigate cones, undersides of branches, and leaf clusters. They sometimes come all the way to the ground to hop around after fallen seeds or insects. Titmice are very vocal birds and are also quick to respond to the sounds of agitation in other birds, coming close to investigate or joining a group of birds mobbing a predator.

Conservation: Tufted Titmice are common and along with the similar Black-crested Titmouse, populations increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 8 million with 100% living in the U.S. The species rates a 7 out of 20 on the Continental Concern Score. Tufted Titmouse is not on the

Color Pattern: Soft silvery gray above and white below, with a rusty or peach-colored wash down the flanks. A black patch just above the bill makes the bird look snub-nosed.

Fun Facts

-> The Black-crested Titmouse of Texas and Mexico has at times been considered just a form of the Tufted Titmouse. The two species hybridize where they meet, but the hybrid zone is narrow and stable over time. They differ slightly in the quality of their calls, and show genetic differences as well.

-> Unlike many chickadees, Tufted Titmouse pairs do not gather into larger flocks outside the breeding season. Instead, most remain on the territory as a pair. Frequently one of their young from that year remains with them, and occasionally other juveniles from other places will join them. Rarely a young titmouse remains with its parents into the breeding season and will help them raise the next year's brood.

-> Tufted Titmice hoard food in fall and winter, a behavior they share with many of their relatives, including the chickadees and tits. Titmice take advantage of a bird feeder's bounty by storing many of the seeds they get. Usually, the storage sites are within 130 feet of the feeder. The birds take only one seed per trip and usually shell the seeds before hiding them.

-> Tufted Titmice nest in tree holes (and nest boxes), but they can't excavate their own nest cavities. Instead, they use natural holes and cavities left by woodpeckers. These species' dependence on dead wood for their homes is one reason why it's important to allow dead trees to remain in forests rather than cutting them down.

-> Tufted Titmice often line the inner cup of their nest with hair, sometimes plucked directly from living animals. The list of hair types identified from old nests includes raccoons, opossums, mice, woodchucks, squirrels, rabbits, livestock, pets, and even humans.

-> The oldest known wild Tufted Titmouse was at least 13 years, 3 months old. It was banded in Virginia in 1962, and found in the same state in 1974.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Small, somewhat stocky bird with a big dark eye and a crest. Grayish above and white below with a peach wash on the sides.



Adult

Adults have a black forehead. Some birds have dingier bellies than others and the peachy flanks are less visible on worn birds.



Adult

Tufted Titmice have larger heads, black eyes, and a gray crest that can be raised or lowered. Their flanks are washed in peach.



Adult

Forages acrobatically, but a bit slower and more methodical than chickadees.



Adult

Somewhat stocky little bird with a gray crest, black eyes, and peach washed flanks.



Adult

Found in eastern forests, parks, and backyards. Peachy flanks are often not as obvious on worn birds.



Adult

Nests in holes in trees or nest boxes.

Red-breasted Nuthatch

Bird Characteristics

Scientific Name: *Sitta canadensis*

Order: Passeriformes

Family Name: Sittidae

Conservation Status: Low Concern

Length: 4.3 in (11 cm)

Weight: 0.3-0.5 oz (8-13 g)

Wingspan: 7.1-7.9 in (18-20 cm)

Basic Description: An intense bundle of energy at your feeder, Red-breasted Nuthatches are tiny, active birds of north woods and western mountains. These long-billed, short-tailed songbirds travel through tree canopies with chickadees, kinglets, and woodpeckers but stick to tree trunks and branches, where they search bark furrows for hidden insects. Their excitable

Nesting Characteristics

Clutch Size: 2-8 eggs

Number of Broods: 1 brood

Egg Length: 0.6-0.7 in (1.5-1.7 cm)

Egg Width: 0.4-0.5 in (1.1-1.3 cm)

Incubation Period: 12-13 days

Nestling Period: 18-21 days

Egg Description: White, creamy, or pinkish white and speckled with reddish brown.

Condition at Hatching: Naked and helpless.

Nest Placement: Female Red-breasted Nuthatches usually choose the nest site, though males without mates may begin excavating several cavities at once in an attempt to attract a female. They may reuse existing holes in trees, but they rarely use nest boxes. Red-breasted Nuthatches often use aspen trees when available, as these trees have softer wood than many

conifers. Nests are usually built in completely dead trees, dead parts of live trees, and trees with broken tops.

Nest Description: Both sexes excavate the nest, but the female does more than the male. Excavation can take up to 18 days and yields a cavity between 2.5 and 8 inches deep. The female then builds a bed of grass, bark strips, and pine needles and lines it with fur, feathers, fine grasses or shredded bark. Both males and females apply conifer resin to the entrance, sometimes applying it with a piece of bark, a remarkable example of tool use.

Bird Information

Habitat: Red-breasted Nuthatches live mainly in coniferous forests of spruce, fir, pine, hemlock, larch, and western red cedar. Eastern populations use more deciduous woods, including aspen, birch, poplar, oak, maple, and basswood. During irruptive winters, nuthatches may use habitats such as orchards, scrub, parks, plantations, and shade trees.

Food: In summer, Red-breasted Nuthatches eat mainly insects and other arthropods such as beetles, caterpillars, spiders, ants, and earwigs, and they raise their nestlings on these foods. In fall and winter they tend to eat conifer seeds, including seeds they cached earlier in the year. During outbreaks of spruce budworm, a forest pest, Red-breasted Nuthatches respond strongly to the plentiful food supply. They also eat from feeders, taking peanuts, sunflower seeds, and suet. When given the choice they tend to select the heaviest food item available; if these are too large to eat in one piece they typically jam them into bark and then hammer them open.

Behavior: Red-breasted Nuthatches move quickly and in any direction across tree trunks and branches. When moving downward they typically zigzag, keeping their grip by relying on the large claw on their one backward-pointing toe on each foot. Red-breasted Nuthatches are aggressive birds that sometimes dominate larger birds at feeders. Nuthatches are among the few non-woodpeckers that excavate their own nest cavities from solid wood. Agitated males may call at each other while pointing their heads up, fluttering their wings, and swiveling back and forth. Males court females by turning their backs to them, singing, and swaying from side to side with crest feathers raised, or by flying together in an exaggerated display of slowly fluttering wings or long glides. Males feed females while the females excavate nest cavities. Red-breasted Nuthatches join foraging flocks of chickadees and other small songbirds. Nuthatches sometimes store seeds and insects to help them get through the winter, shoving the food into bark crevices and often covering them with pieces of bark, lichen or pebbles. They typically fly only short distances at a time, with an undulating pattern.

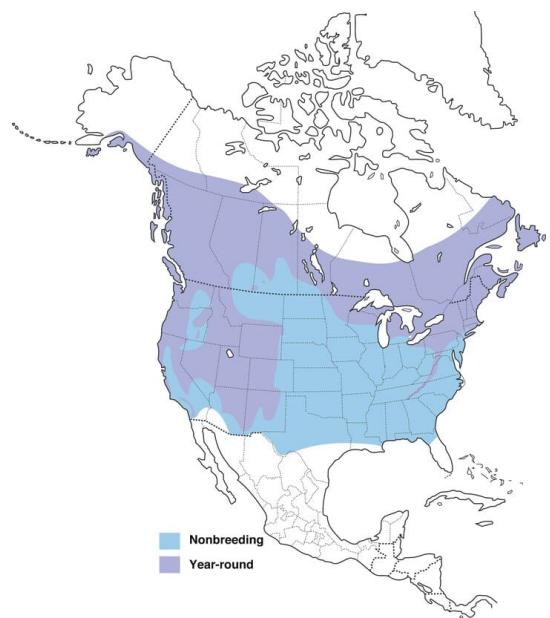
Conservation: Red-breasted Nuthatches are common and their populations increased throughout most of their range between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 20 million with 64% spending some part of the year in the U.S., and 62% in Canada. The species rates a 6 out of 20 on the Continental Concern Score. Red-breasted nuthatch is not on the

Color Pattern: Red-breasted Nuthatches are blue-gray birds with strongly patterned heads: a black cap and stripe through the eye broken up by a white stripe over the eye. The underparts are rich rusty-cinnamon, paler in females.

Fun Facts

- > The Red-breasted Nuthatch collects resin globules from coniferous trees and plasters them around the entrance of its nest hole. It may carry the resin in its bill or on pieces of bark that it uses as an applicator. The male puts the resin primarily around the outside of the hole while the female puts it around the inside. The resin may help to keep out predators or competitors. The nuthatch avoids the resin by diving directly through the hole.
- > During nest building, the Red-breasted Nuthatch is aggressive, chasing away other hole-nesting birds such as the House Wren, White-breasted Nuthatch, and Downy Woodpecker. A particularly feisty nuthatch may go after Yellow-rumped Warblers, House Finches, Violet-Green Swallows, and Cordilleran Flycatchers.
- > Red-breasted Nuthatches migrate southward earlier than many irruptive species. They may begin in early July and may reach their southernmost point by September or October.
- > Red-breasted Nuthatches sometimes steal nest-lining material from the nests of other birds, including Pygmy Nuthatches and Mountain Chickadees.
- > The oldest known Red-breasted Nuthatch was 7 years, 6 months old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Compact bird with a very short tail, almost no neck, and a sharp bill. Sharply marked with a black crown, white eyebrow, and black eyeline. Blue-gray above and rusty below.



Adult female

Barrel-chested and compact, these active birds move up, down, and around tree branches and trunks. Females have grayer caps and paler rusty underparts.



Adult male

A frequent visitor at seed and suet feeders.



Adult male

Compact bird with a short tail. Blue-gray above with a sharply marked black-and-white face. Clings to trees with its feet, moving up, down, and around tree trunks, often heading downward in a zigzag pattern.



Adult male

Stout, no-necked bird with a long, sharply pointed bill. Adult males have a dark black cap and rusty underparts.



Juvenile

None



Adult male

None



Adult male

Moves up, down, and around tree trunks and branches pulling out insects from bark or seeds from cones.



Adult male

Found primarily in evergreen forests of spruce, fir, pine, hemlock, larch, and western red cedar. Eastern populations use more deciduous woods, including aspen, birch, poplar, oak, maple, and basswood.

White-breasted Nuthatch

Bird Characteristics

Scientific Name: *Sitta carolinensis*

Order: Passeriformes

Family Name: Sittidae

Conservation Status: Low Concern

Length: 5.1-5.5 in (13-14 cm)

Weight: 0.6-1.1 oz (18-30 g)

Wingspan: 7.9-10.6 in (20-27 cm)

Basic Description: A common feeder bird with clean black, gray, and white markings, White-breasted Nuthatches are active, agile little birds with an appetite for insects and large, meaty seeds. They get their common name from their habit of jamming large nuts and acorns into tree bark, then whacking them with their sharp bill to “hatch” out the seed from the inside. White-breasted Nuthatches may be small but their voices are loud, and often their insistent nasal yammering will lead you right to them.

Nesting Characteristics

Clutch Size: 5-9 eggs

Number of Broods: 1 brood

Egg Length: 0.7-0.8 in (1.8-2 cm)

Egg Width: 0.6 in (1.5 cm)

Incubation Period: 13-14 days

Nestling Period: 26 days

Egg Description: Creamy white to pinkish-white, speckled with reddish brown, gray, or purple.

Condition at Hatching: Helpless and naked except for some down.

Nest Placement: White-breasted Nuthatches typically build their nests in natural tree cavities or abandoned woodpecker holes. They sometimes enlarge these holes but rarely excavate

them entirely on their own (as Red-breasted Nuthatches often do). Nuthatches are smaller than woodpeckers, and White-breasted Nuthatches don't seem bothered by nest holes considerably larger than they are. Despite their association with deciduous woods, they nest in both coniferous and deciduous trees. White-breasted Nuthatches sometimes use nest boxes.

Nest Description: Females build the nest on their own, lining the nest cavity with fur, bark, and lumps of dirt. She then builds a nest cup of fine grass, shredded bark, feathers, and other soft material. White-breasted Nuthatches often reuse their nest holes in subsequent years.

Bird Information

Habitat: White-breasted Nuthatches are birds of mature woods, and they're more often found in deciduous than coniferous forests (where Red-breasted Nuthatches are more likely). You can also find them at woodland edges and in open areas with large trees, such as parks, wooded suburbs, and yards.

Food: White-breasted Nuthatches eat mainly insects, including weevil larvae, wood-boring beetle larvae, other beetles, tree hoppers, scale insects, ants, gall fly larvae, caterpillars (including gypsy moths and tent caterpillars), stinkbugs, and click beetles, as well as spiders. They also eat seeds and nuts, including acorns, hawthorn, sunflower seeds, and sometimes crops such as corn. At birdfeeders they eat sunflower seeds, peanuts, suet, and peanut butter.

Behavior: White-breasted Nuthatches forage up, down, and sideways over tree trunks and around large branches. They often (though not always) start high in trees and move down them head first, pausing to crane their necks up and back, toward the horizontal, for a look around. They probe into bark crevices or chip away at wood to find food. When they find large nuts and seeds, they jam them into the bark and hammer them open. White-breasted Nuthatches often store seeds and insects one at a time, and somewhat haphazardly, under loose bark on their territory. They typically hide the food by covering it with a piece of bark, lichen, moss, or snow. White-breasted Nuthatches live in pairs year round and chase other nuthatches from their territory. Agitated birds fan their tails, flick their wings, or raise the feathers of the back. A bird backing down from a confrontation typically raises its bill and tail, and droops its wings. In winter White-breasted Nuthatches join groups of chickadees, titmice, and woodpeckers to forage.

Conservation: White-breasted Nuthatch is common and widespread, and populations increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 9.2 million with 85% occurring in the U.S., 5% in Canada, and 10% in Mexico. The species rates a 6 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: White-breasted Nuthatches are gray-blue on the back, with a frosty white face and underparts. The black or gray cap and neck frame the face and make it look like this bird is wearing a hood. The lower belly and under the tail are often chestnut.

Fun Facts

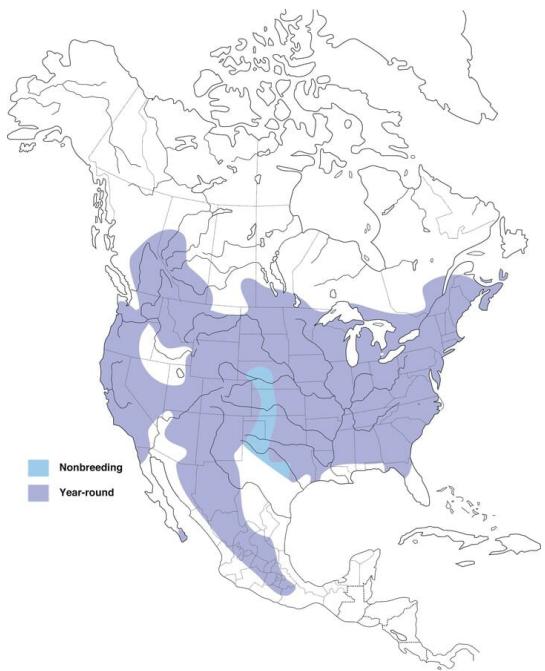
-> The White-breasted Nuthatch is normally territorial throughout the year, with pairs staying together. The male has to spend more time looking out for predators when he's alone than while he's with his mate. That's the pattern for most birds, and one reason why birds spend so much time in flocks. But the female nuthatch has to put up with the male pushing her aside from foraging sites, so she spends more time looking around (for him) when he's around than when she is alone.

-> In winter, White-breasted Nuthatches join foraging flocks led by chickadees or titmice, perhaps partly because it makes food easier to find and partly because more birds can keep an eye out for predators. One study found that when titmice were removed from a flock, nuthatches were more wary and less willing to visit exposed bird feeders.

-> If you see a White-breasted Nuthatch making lots of quick trips to and from your feeder – too many for it to be eating them all – it may be storing the seeds for later in the winter, by wedging them into furrows in the bark of nearby trees.

-> The oldest known White-breasted Nuthatch was at least 9 years, 9 months old when it was found in Colorado.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Male

Compact, no-necked and short-tailed bird with a long, sharply pointed bill. Note blue-gray back, stark white cheeks, and black cap. From below, it has a white belly and rusty spots near its rear.



Female

Compact bird that clings to tree bark moving down, up, and around the trees. Females look like males but have a grayer cap. Note rusty patches near the rear.



Male

Small and compact with a big head and short tail. Blue-gray above with a black crown and stark white cheeks.



Male
None



Female
Females have a gray crown and paler rusty underparts compared to males.



Adult
None



Juvenile
None



Adult
None



Female
Nests in holes in trees created naturally or excavated by woodpeckers.



Habitat
Found most often in older deciduous woodlands, but also found in parks, wooded suburbs, and yards.

Brown Creeper

Bird Characteristics

Scientific Name: *Certhia americana*

Order: Passeriformes

Family Name: Certhiidae

Conservation Status: Low Concern

Length: 4.7-5.5 in (12-14 cm)

Weight: 0.2-0.3 oz (5-10 g)

Wingspan: 6.7-7.9 in (17-20 cm)

Basic Description: Brown Creepers are tiny woodland birds with an affinity for the biggest trees they can find. Look for these little, long-tailed scraps of brown and white spiraling up stout trunks and main branches, sometimes passing downward-facing nuthatches along the way. They probe into crevices and pick at loose bark with their slender, downcurved bills, and build their hammock-shaped nests behind peeling flakes of bark. Their piercing calls can make it much easier to find this hard-to-see but common species.

Nesting Characteristics

Clutch Size: 5-6 eggs

Number of Broods: 1 brood

Egg Length: 0.6-0.6 in (1.5-1.6 cm)

Egg Width: 0.5 in (1.2 cm)

Incubation Period: 13-17 days

Nestling Period: 14-20 days

Egg Description: Smooth and white, speckled with pink or reddish-brown.

Condition at Hatching: Eyes closed and bodies almost completely naked except for long, dark-gray down on the head.

Nest Placement: Both adults investigate several possible nest sites. They almost always

choose a spot between the trunk and a loose piece of bark on a large, dead or dying tree—either deciduous or coniferous—in a dense tree stand. They occasionally nest in large live trees with peeling bark or in dead portions of live trees. Nests are between a couple of feet off the ground and 40 feet up.

Nest Description: The female takes a week or two to build the nest, while the male helps by bringing nesting material (he often sings nearby). She builds the frame of the nest by layering twigs and strips of bark. She uses insect cocoons and spider egg cases to stick those materials to each other and to the inner surface of the tree bark. The nest cup, up to 2.5 inches deep and 6 inches across, consists of wood fibers, spider egg cases, hair, feathers, grass, pieces of leaves, lichens, and mosses. Some of the materials may be used twice, once to build the base and later taken from the base to build the nest cup.

Bird Information

Habitat: The Brown Creeper prefers forests with many large live trees for foraging and large loose-barked (often dead or dying) trees for nesting. In the summer it tends to live in mature coniferous forests; the tree species vary greatly across its range, but can include redwood, Douglas-fir, ponderosa pine, spruce, eastern hemlock, white pine, and bald cypress. In the winter it uses a wider variety of wooded habitats from deciduous forests to suburbs to parks to orchards. In winter in north Texas and the Midwest, creepers are particularly common in oak-hickory forests and tree savannas. Brown Creepers breed up to about 4,500 feet elevation in eastern North America and all the way up to treeline (around 11,000 feet) in parts of the West.

Food: In the breeding season, Brown Creepers eat insects and their larvae (including stinkbugs, fruit flies, gnats, beetles, weevils, bark beetle parasitoids, butterflies, moths, lacewings, caddisflies, scale insects, leafhoppers, katydids, flat-bugs, plant lice, ants, and sawflies) along with spiders, spider eggs, and pseudoscorpions. They mainly patrol large, live trees with deeply furrowed bark, which harbors the highest densities of insects. They glean, probe, and peck at the trunk with their long, downcurved bills. Starting near the bottom of the trunk, they work their way up the tree to within several feet of the top, then fly to the bottom of another tree (or sometimes the same one) to begin again. In the winter they maintain the same diet of insects and other arthropods, but may also eat small amounts of seeds and other plant materials. Creepers may visit seed and suet feeders.

Behavior: The Brown Creeper spends most of its time spiraling up tree trunks in search of insects. It holds its short legs on either side of its body, with the long, curved claws hooking into the bark, and braces itself with its long, stiff tail. Both feet hop at the same time, making the bird's head duck after each hop. Because of its specialized anatomy, the Brown Creeper rarely climbs downward: once high in a tree, it flies down to begin a new ascent at the base of a nearby tree. During breeding season, males have intense singing competitions to establish and defend territories of 5–15 acres. Males fly in fast spirals when pursuing a potential mate. Creepers are probably monogamous, with partners staying together until several weeks after the chicks fledge. Both parents may feed the fledglings. Territories break down late in the breeding season, and in the winter creepers often roost communally and join flocks with other

species to forage. Adults may be preyed upon by domestic cats and Northern Shrikes, among other predators. Nests are in danger from red squirrels, northern flying squirrels, golden-mantled ground squirrels, wood rats, and deer mice. When adults see or hear a predator, they freeze, silently pressed against the bark. Creepers have been seen chasing chipmunks and joining groups of nuthatches and kinglets to mob jays.

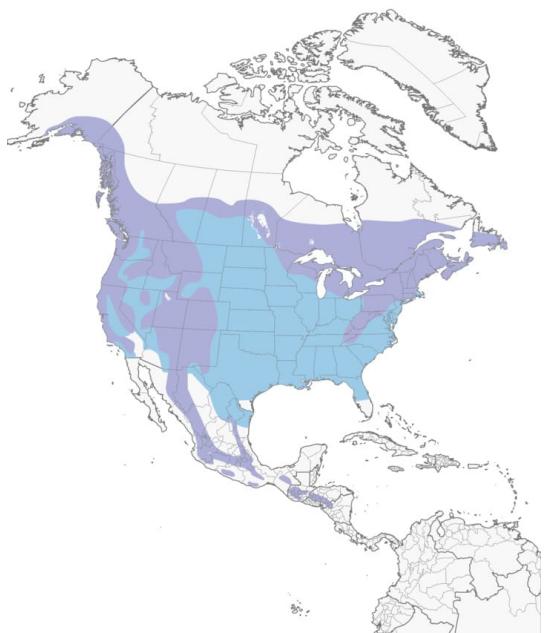
Conservation: Brown Creeper populations were stable or slightly increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 9.3 million, with 65% spending part of the year in the U.S., 43% in Canada, and 8% in Mexico. They rate an 8 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Streaked brown and buff above, with their white underparts usually hidden against a tree trunk, Brown Creepers blend easily into bark. Their brownish heads show a broad, buffy stripe over the eye (supercilium).

Fun Facts

- > In Arizona, Brown Creeper nests often have two openings, one which serves as an entrance and the other as an exit. Entrances face downward and exits upward.
- > Sometimes creepers build nests in unusual places, such as behind window shutters, in or under roofs, inside fenceposts, or inside concrete blocks. One brought up a family in a specially constructed box made of pieces of Douglas-fir bark.
- > Wildlife managers sometimes use the Brown Creeper as an indicator species to help gauge the effects of logging on wildlife habitat.
- > Brown Creepers burn an estimated 4–10 calories (technically, kilocalories) per day, a tiny fraction of a human's daily intake of about 2,000 kilocalories. By eating a single spider, a creeper gains enough energy to climb nearly 200 feet vertically.
- > The naturalist W.M. Tyler, writing in 1948, captured this species' energy and fragility in a memorable description, "The Brown Creeper, as he hitches along the bole of a tree, looks like a fragment of detached bark that is defying the law of gravitation by moving upward over the trunk, and as he flies off to another tree he resembles a little dry leaf blown about by the wind."
- > The Brown Creeper builds a hammock-like nest behind a loosened flap of bark on a dead or dying tree. It wasn't until 1879 that naturalists discovered this unique nesting strategy.
- > The oldest Brown Creeper on record was at least 5 years, 5 months old and was recaptured and rereleased during banding operations in Illinois.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Tiny and delicate songbird. It has a long, spine-tipped tail, a slim body, and a slender, decurved bill. Its back is mottled brown and the underparts are white.



Adult

Tiny with a long tail and a sharp, curved bill. Its cryptically colored back helps it blend in with the trees.



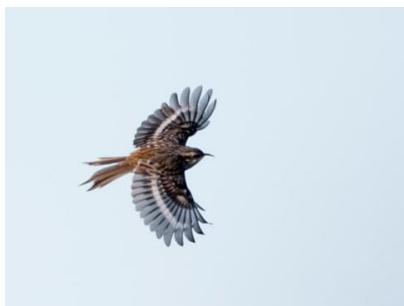
Adult

None



Adult

Spirals up trees moving with short, jerky motions using their stiff tails for support.



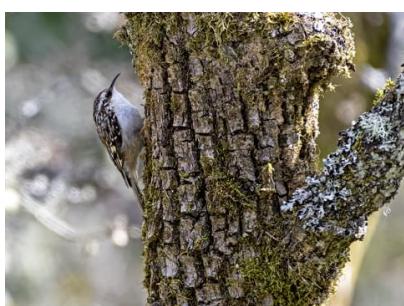
Adult

None



Adult

None



Adult

Found primarily in mature evergreen or mixed evergreen-deciduous forests during the breeding season.

Cactus Wren

Bird Characteristics

Scientific Name: *Campylorhynchus brunneicapillus*

Order: Passeriformes

Family Name: Troglodytidae

Conservation Status: Common Bird in Steep Decline

Length: 7.1-8.7 in (18-22 cm)

Weight: 1.1-1.7 oz (32-47 g)

Basic Description: No bird exemplifies Southwestern deserts better than the noisy Cactus Wren. At all hours of the day they utter a raw scratchy noise that sounds like they are trying to start a car. Cactus Wrens are always up to something, whether hopping around on the ground, fanning their tails, scolding their neighbors, or singing from the tops of cacti. They build nests the size and shape of footballs which they use during the breeding and nonbreeding season. Cactus Wrens are true desert dwellers; they can survive without needing to drink freestanding water.

Nesting Characteristics

Bird Information

Habitat: Cactus Wrens live in scrubby areas in the Chihuahuan, Sonoran, and Mojave Deserts as well as in coastal sage scrub in California and thorn-scrub areas in Tamaulipas, Mexico. They inhabit areas with cholla, saguaro, and prickly-pear cacti, catclaw acacia, mesquite, whitethorn, desert willow, yucca, palo verde, and other desert shrubs. Small patches of prickly-pear and cholla cacti mixed with short sagebrush and buckwheat are great spots for Cactus Wrens in coastal California and northwestern Baja California, Mexico.

Food: Cactus Wrens eat mostly spiders and insects such as beetles, ants, wasps, grasshoppers, and butterflies. They find these while hopping on the ground and turning over leaves or by searching bushes and tree bark. Cactus Wrens also eat fruit, particularly cactus fruits. They get the majority of their water from the food they eat and rarely drink free-standing water.

Behavior: undefined

Conservation:

Color Pattern: The Cactus Wren is a speckled brown bird with bright white eyebrows that extend from the bill, across and above their red eyes, to the sides of the neck. They have pale cinnamon sides and a white chest with dark speckles. The back is brown with heavy white streaks, and the tail is barred white and black—especially noticeable from below. Males and females look alike, but juveniles are slightly paler and have a brown eye.

Fun Facts

- > Most birds only build nests during the breeding season and use them just for rearing their young, but male and female Cactus Wrens build multiple nests and use them as roosting sites even during the nonbreeding season.
- > Juvenile Cactus Wrens start building nests early in life. They imitate their parents by picking up nesting material as soon as 12 days after leaving the nest, but they don't actually build their own nest until they've been out of the nest for about 63 days.
- > Adults often feed their nestlings grasshoppers, being careful to pluck off the wings before stuffing the insect into the chicks' mouths. The parents need to pluck a lot of grasshopper wings; one nestling needs to eat at least 14 grasshoppers a day to meet its nutritional requirements.
- > The Cactus Wren destroys the nests of other bird species, pecking or removing their eggs, and can lower the breeding density of Verdins (another desert bird).
- > Cold desert nights may have more of an impact on the success of Cactus Wren breeding than extremely hot daytime temperature.
- > Cactus Wrens rarely drink water. Instead they get all their liquids from juicy insects and fruit.
- > The Cactus Wren is the state bird of Arizona.
- > The oldest recorded Cactus Wren was a male, and at least 8 years, 1 month old when it was identified in California by a leg band in 2013. It had been banded in the same state in 2006.
- > The Cactus Wren is an active mobber of nest predators. A pair was observed attacking a Yuma antelope squirrel so vigorously that the squirrel became impaled on the thorns of a cactus. The wrens continued to peck the squirrel until it was knocked to the ground where it escaped.
- > Before heading back to the nest for the night, many Cactus Wrens take a dust bath. Several species also take dust baths to help reduce feather parasites and keep feathers looking good.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Large chunky wren with a long heavy bill, a long, rounded tail, and short, rounded wings. Speckled brown bird with a bright white eyebrow and cinnamon sides.

None



Large chunky wren with a long heavy bill and a long, rounded tail. The back is brown with heavy white streaks, and the tail is barred white and black—especially noticeable from below.

None



Hefty wren with dark spotting on the the breast often concentrated around

the throat. Note white eyebrow stripe and long barred tail.

None



Bold and inquisitive. Often perches atop tall vegetation, but does not cock its tail the way other wrens do.

None



Large wren with a bold white eyebrow and white streaks down its brown back. Its long tail is barred black and white.

None



None

None



Builds large football-shaped nests with tunnel-shaped entrances in cacti or other thorny shrubs. Uses nests as roosting sites even during the nonbreeding season.

None



Found in deserts, arid foothills, coastal sage scrub, and urban areas throughout the Southwestern deserts, especially in areas with thorny shrubs, cholla, and prickly pear.

None

Marsh Wren

Bird Characteristics

Scientific Name: *Cistothorus palustris*

Order: Passeriformes

Family Name: Troglodytidae

Conservation Status: Low Concern

Length: 3.9-5.5 in (10-14 cm)

Weight: 0.3-0.5 oz (9-14 g)

Wingspan: 5.9 in (15 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-10 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.7 in (1.4-1.8 cm)

Egg Width: 0.4-0.6 in (1.1-1.4 cm)

Incubation Period: 12-16 days

Nestling Period: 13-15 days

Egg Description: Brown with dark spots.

Condition at Hatching: undefined

Nest Placement: Males build several nests within their territory, in cattails and bulrushes around 2–5 feet above the ground.

Nest Description: Males construct a dome-shaped nest with strips of cattail, sedges, and grasses. The nest is oblong with a small hole at the top and an enclosed cup at the bottom. The nest is about 7 inches tall and 5 inches wide. Females line the nest with strips of grass, sedge, cattail down, feathers, and rootlets.

Bird Information

Habitat: Marsh Wrens occupy wetlands filled with cattails, sedges, bulrushes, and

Food: Marsh Wrens pick insects and spiders from stems and leaves of marsh vegetation. They tend to forage close to water, but occasionally fly up to catch a passing insect.

Behavior: Marsh Wrens cling to stems of wetland vegetation, often with each foot on a different stalk shimmying up and down and belting out series of gurgling, buzzy trills. They tend to stay down in the reeds, but males sometimes pop up to sing on taller stems especially early in the breeding season. Displaying males also fly weakly above the marsh, fluttering downwards and dropping straight back into the reeds. Adults often return to the same breeding territories year after year. Males arrive on the breeding grounds first and begin building several dome-shaped nests. When a female arrives, he cocks his tail and sings. He then escorts her around to his nests, bowing and holding up his tail. Once the female selects the nest they both aggressively defend the territory, but males don't stick with just one female; they frequently mate with others. Males and females also destroy the eggs and nestlings of other Marsh Wrens and nesting birds, perhaps in a fight over resources.

Conservation: Marsh Wrens are common and their populations increased by 130% between 1966 and 2015, according to

Color Pattern: None

Fun Facts

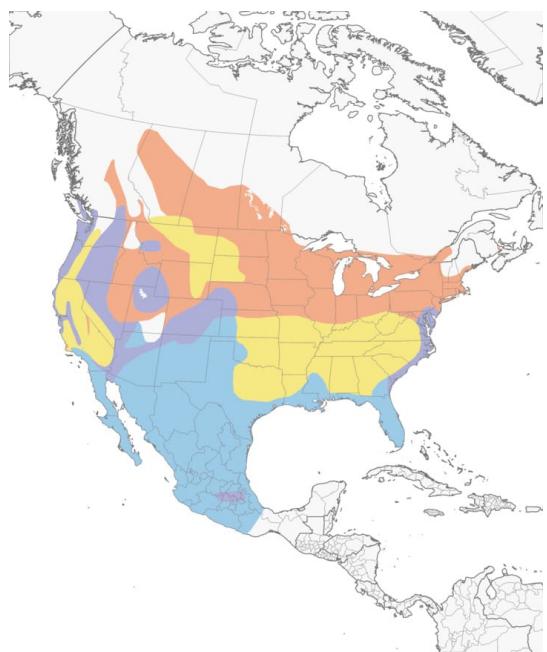
-> The secret life of the Marsh Wren plays out under the cover of reeds. Here, males routinely mate with 2 or more females and build at least 6 dummy nests for every female they mate with. One male built 22 nests on his territory.

-> Marsh Wrens are tiny but fierce. They fight for resources and regularly pierce eggs and kill nestlings of Marsh Wrens and other birds.

-> Eastern and western populations of the Marsh Wren show slight differences in appearance, but large differences in song. In general, western birds are paler and drabber, and sing less musical songs. The differences may mean that the two forms are separate species.

-> Marsh Wrens are boisterous songsters that sing not only at dawn and dusk, but sometimes throughout the night.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Tiny, round-bodied wren with a short tail that is often held up. Rusty-brown above with black-and-white streaks down its back. Underparts are paler and unstreaked. Individuals in eastern North America are often rustier and more brightly colored than those in the West.

None



Boisterous bird of wetlands. Sings a gurgling rattling trill, usually while hidden in reeds. Brown above with black-and-white streaks down the back. Note pale eyebrow and unstreaked shoulder.

None



Clings to reeds, grasping a different stalk in each foot. Rich brown above with dark barring on the tail; paler below with a white throat and breast.
Note pale eyebrow.

None



Small, plump wren with a thin bill. Individuals in eastern North America are rustier and more brightly colored than birds in the West. Note dark barring on tail, black-and-white stripes down the back, unstreaked shoulder, and pale eyebrow.

None



None

None



(griseus)

None



Found in wetlands with emergent vegetation such as cattails and bulrushes.

None



Small wren of wetlands, difficult to see but easy to hear. Look for the pale eyebrow, white throat and breast, black-and-white stripes down the back, and unmarked shoulders.

None

Carolina Wren

Bird Characteristics

Scientific Name: *Thryothorus ludovicianus*

Order: Passeriformes

Family Name: Troglodytidae

Conservation Status: Low Concern

Length: 4.7-5.5 in (12-14 cm)

Weight: 0.6-0.8 oz (18-22 g)

Wingspan: 11.4 in (29 cm)

Basic Description: In summer it can seem that every patch of woods in the eastern United States rings with the rolling song of the Carolina Wren. This shy bird can be hard to see, but it delivers an amazing number of decibels for its size. Follow its

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1-3 broods

Egg Length: 0.7-0.8 in (1.7-2.1 cm)

Egg Width: 0.6-0.6 in (1.4-1.6 cm)

Incubation Period: 12-16 days

Nestling Period: 10-16 days

Egg Description: White, cream, or pinkish white, with fine rusty-brown spots.

Condition at Hatching: Eyes closed, with pale grayish down.

Nest Placement: Carolina Wrens nest in open cavities 3–6 feet off the ground, in trees, overhangs and stumps. The first nest is sometimes built on vegetation-shaded ground. Near homes, they're versatile nesters, making use of discarded flowerpots, mailboxes, propane-tank covers, and a variety of other items. Their nests have even been found in old coat pockets and boots. Males often build multiple nests before the pair makes a final selection.

Nest Description: Male and female Carolina Wrens build their nests together. One member of the pair may stay at the site while the other gathers material. The first nest can take a week or more to build, but later ones take shape in as few as 4 days. The bulky nest is cup-shaped, usually domed, with a side entrance and often a woven extension like a porch or entrance ramp. It's loosely constructed of a great variety of materials such as bark strips, dried grasses, dead leaves, pine needles, hair, feathers, straw, shed snakeskin, paper, plastic, or string). The female lines the nest's inner bowl and may add nest material after incubation has begun. Nests may range from 3 to 9 inches long and 3 to 6 inches wide.

Bird Information

Habitat: Carolina Wrens frequent vegetated habitats such as brushy thickets, lowland cypress swamps, bottomland woods, and ravines choked with hemlock and rhododendron. They gravitate toward shrubby, wooded residential areas, overgrown farmland, dilapidated buildings, and brushy suburban yards.

Food: Insects and spiders make up the bulk of this wren's diet. Common foods include caterpillars, moths, stick bugs, leafhoppers, beetles, grasshoppers, crickets, and cockroaches. Carolina Wrens occasionally eat lizards, frogs, or snakes. They also consume a small amount of plant matter, such as fruit pulp and seeds from bayberry, sweetgum, or poison ivy.

Behavior: Carolina Wrens usually go about their business alone or in pairs; after nestlings have fledged, you may see family groups feeding together. Feeding on or near the ground, the wrens run, hop, and flit around leaf litter and tangled vegetation; they dodge in and out of dark spaces created by downed trees, decaying logs, old stumps, and upturned roots. They climb up vines, trunks, and branches, poking into squirrel nests and probing nooks and crannies in search of insects. Carolina Wrens use their curved bills to turn over decaying vegetation and to hammer and shake apart large bugs. They roost in bird boxes, abandoned hornet nests, hanging plants, garages, barns, old nests, and other shelters. A weak flyer, this wren makes brief, quick aerial forays over short distances. Pairs stay bonded year-round, with no vacation from singing or defending territory.

Conservation: Carolina Wrens are common across their range and their populations are increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 14 million, with 89% living in the U.S., and 10% in Mexico. This is a U.S.-Canada Stewardship species. It rates a 7 out of 20 on the Continental Concern Score. Carolina Wren is not on the

Color Pattern: Both males and females are a bright, unpatterned reddish-brown above and warm buffy-orange below, with a long white eyebrow stripe, dark bill, and white chin and throat.

Fun Facts

-> The Carolina Wren is sensitive to cold weather, with the northern populations decreasing markedly after severe winters. The gradually increasing winter temperatures over the last century may have been responsible for the northward range expansion seen in the mid-1900s.

-> Unlike other wren species in its genus, only the male Carolina Wren sings the loud song. In other species, such as the Stripe-breasted Wren of Central America, both members of a pair sing together. The male and female sing different parts, and usually interweave their songs such that they sound like a single bird singing.

-> One captive male Carolina Wren sang nearly 3,000 times in a single day.

-> A pair bond may form between a male and a female at any time of the year, and the pair will stay together for life. Members of a pair stay together on their territory year-round, and forage and move around the territory together.

-> The oldest recorded Carolina Wren was at least 7 years, 8 months old when it was recaptured and rereleased during banding operations in Florida in 2004. It had been banded in the same state in 1997.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Reddish brown upperparts contrast with buffy underparts and white throat and eyebrow. Wings and tail have bold darker barring, and bill is long and thin.



Adult

Individuals from southern Texas and northeastern Mexico are boldly barred on the wings and tail, and have faint barring on flanks and back.



Adult

The loud, cheerful song is often heard before the bird is seen.



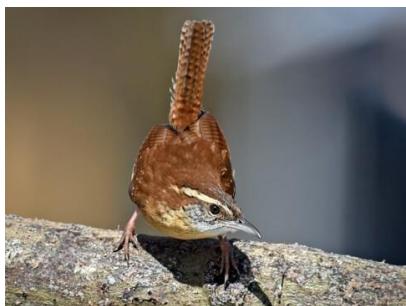
Adult

Individuals often hold their tails cocked, emphasizing the black barring.



Adult

None



Adult

Individuals often perch bent over, holding their tails cocked.



Adult

Visits feeders, especially during the colder months.



Adult (White-browed)

Individuals from southern Mexico and Central America are dingy white below with cold brown upperparts.



Adult (White-browed)

None



Adult

Found in dense woodlands and shrubby habitats.

American Dipper

Bird Characteristics

Scientific Name: *Cinclus mexicanus*

Order: Passeriformes

Family Name: Cinclidae

Conservation Status: Low Concern

Length: 5.5-7.9 in (14-20 cm)

Weight: 1.5-2.4 oz (43-67 g)

Basic Description: A chunky bird of western streams, the American Dipper is North America's only truly aquatic songbird. It catches all of its food underwater in swiftly flowing streams by swimming and walking on the stream bottom.

Nesting Characteristics

Clutch Size: 4-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.1 in (2.3-2.8 cm)

Egg Width: 0.7-0.8 in (1.7-1.9 cm)

Incubation Period: 14-17 days

Nestling Period: 24-26 days

Egg Description: White.

Condition at Hatching: Helpless with only sparse down.

Nest Placement: American Dippers build nests on cliff ledges, behind waterfalls, on boulders, and on dirt banks or under bridges, but always above or close to the fast water of their stream habitat. Females choose a ledge or crevice that is 6-20 feet above deep water so that the nest will not be in danger of predators or flooding.

Nest Description: Males and females may work together to build the ball-like nest, often in

freezing temperatures. Materials are dipped into water before being weaved into two layers: one, an outer shell, 8-10 inches in diameter, made of moss, and the other an inner chamber with a woven cup, 2-3 inches in diameter, made of grass, leaves, and bark. Once the nest is finished, the mossy shell absorbs moisture and the coarse grass keeps the inside dry.

Bird Information

Habitat: American Dippers live almost solely on rushing, unpolluted waters and can be found in mountain, coastal, or even desert streams of the West. Dippers forage in streams with rocky bottoms, and they use streams with overhanging banks for cover and nesting locations. American Dippers don't migrate south, though they may move to larger, unfrozen rivers in winter or follow insect hatches in spring or summer.

Food: American Dippers feed on aquatic insects and their larvae, including mayflies, mosquitoes, and midges. They also eat dragonflies, worms, small fish, fish eggs, or flying insects. American Dippers rapidly duck their heads in and out of water when looking for their stream-dwelling prey.

Behavior: American Dippers can wade, swim, and dive either from the water or from the air, and can move rocks on the stream-bottom to get at food. They are mainly monogamous. Though some pairs stay together in winter, the dipper is generally a solitary bird; after the chicks' fledging, parents often divide their brood and their territory and part ways.

Conservation: Though American Dipper populations are difficult to count, numbers appear to be relatively stable, though experienced a small decline from 1966 to 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 190,000 with 86% living in the U.S., 8% in Canada, and 5% in Mexico. They rate a 10 out of 20 on the Continental Concern Score and are not on the

Color Pattern: None

Fun Facts

- > The American Dipper chooses a nest site, invariably along a stream, that provides security from floods and predators. Availability of suitable nest sites appears to limit its populations.
- > To be able to survive in cold waters during the winter, the American Dipper has a low metabolic rate, extra oxygen-carrying capacity in its blood, and a thick coat of feathers.
- > Unlike most other songbirds, but similarly to ducks, the American Dipper molts its wing and tail feathers all at once in the late summer. The bird is flightless during this time.
- > The oldest American Dipper was over 8 years old, when it was recaptured and rereleased during a banding operation in South Dakota.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Chunky, round-bodied bird with a short tail. Adults are grayish brown overall. Breeding birds have an all dark bill.



Nonbreeding adult

Chunky, round-bellied bird with a short tail. Some nonbreeding adults can have barred underparts and a yellowish bill.



Juvenile

Chunky, round-bellied bird with a short tail. Juveniles look similar to adults, but have barred underparts and a yellowish bill.



Adult
None



Nonbreeding adult
Grayish brown bird at home in rushing streams where it forages underwater for aquatic insects.



Adult
Often holds its short tail up and bounces up and down on rocks in rushing streams.



Adult

Builds domed nests on cliff ledges, behind waterfalls, on boulders, and on dirt banks or under bridges, but always above or close to fast moving streams.

Golden-crowned Kinglet

Bird Characteristics

Scientific Name: *Regulus satrapa*

Order: Passeriformes

Family Name: Regulidae

Conservation Status: Low Concern

Length: 3.1-4.3 in (8-11 cm)

Weight: 0.1-0.3 oz (4-8 g)

Wingspan: 5.5-7.1 in (14-18 cm)

Basic Description: Golden-crowned Kinglets are boldly marked with a black eyebrow stripe and flashy lemon-yellow crest. A good look can require some patience, as they spend much of their time high up in dense spruce or fir foliage. To find them, listen for their high, thin call notes and song. Though barely larger than a hummingbird, this frenetically active bird can survive -40 degree nights, sometimes huddling together for warmth. They breed in the far north and montane west and visit most of North America during winter.

Nesting Characteristics

Clutch Size: 3-11 eggs

Number of Broods: 1-2 broods

Egg Length: 0.5-0.6 in (1.2-1.5 cm)

Egg Width: 0.3-0.4 in (0.7-1.1 cm)

Incubation Period: 15 days

Nestling Period: 16-19 days

Egg Description: White or creamy, speckled with pale brown and lilac.

Condition at Hatching: Helpless, bumblebee-sized, and naked except for tufts of down on the top of the head.

Nest Placement: Golden-crowned Kinglets nest up to about 60 feet from the ground in the tops

of conifers such as balsam fir, white spruce, and black spruce, usually close to the trunk and protected from the elements by overhanging needles.

Nest Description: The male and the female spend 4-6 days building a deep, four-cornered, cup-shaped nest with inward-arching rims, either suspended by or resting on twigs. They collect materials within about 65 feet of the nest tree, including mosses, spiderweb, downy plant material, parts of insect cocoons, lichens, and strips of bark. The nest lining consists of finer pieces of similar materials, along with deer hair and feathers. The completed nest measures about 3 inches high and 3 inches across on the outside, with an inner cup about 1.5 inches across and 1.5 inches deep.

Bird Information

Habitat: Golden-crowned Kinglets breed mainly in boreal or montane coniferous forests up to about 11,000 feet elevation. They also nest in deciduous and mixed forests, wooded bogs, conifer plantations, hemlock groves, cottonwood-willow forests, and groves in parks and cemeteries. During migration, Golden-crowned Kinglets stop in a broad range of habitats at medium to high elevations, including coniferous and deciduous forests, old fields, parks, and backyards. They winter in a variety of coniferous and deciduous habitats, bottomland hardwoods, swamps, riverside habitats, cities, and suburbs.

Food: Golden-crowned Kinglets eat mainly insects. During the breeding season, they glean small, soft-bodied arthropods and their eggs from branch tips, under bark, and in tufts of conifer needles. The diet includes springtails, grasshoppers, crickets, lice, bugs, lacewings, beetles, caddis flies, moths, butterflies, flies, bees, wasps, spiders, mites, and some mollusks. In winter the kinglets also eat small amounts of seeds and may forage in brush piles and understory trees. Besides gleaning, they hover to capture prey under leaves, peck at the bases of pine needles, and hawk for aerial insects. Golden-crowned Kinglets forage in similar parts of a tree as Ruby-crowned Kinglets and chickadees. They sometimes shift where they're feeding to avoid competition with Carolina Chickadees or Tufted Titmice.

Behavior: The male establishes a territory and chases male intruders, while giving rapid-fire tsee notes and flaring his crown patch. Pairs are monogamous and most have two broods each season, one after another. The female does all of the incubation, while the male provides food for her. Males drive off other males all throughout the nesting period, until the second brood fledge. Golden-crowned Kinglets are also territorial toward Blackburnian Warblers, Black-throated Green Warblers, Chipping Sparrows, Black-capped Chickadees, Boreal Chickadees, Pine Siskins, and Red-breasted Nuthatches. Their nest predators include red squirrels, Gray Jays, and Blue Jays. Adults may be preyed on by Eastern Screech-Owls, Sharp-shinned Hawks, red squirrels, and bobcats. Outside of the breeding season, Golden-crowned Kinglets are more social: they flock with each other and with other small songbirds including Pine Warblers, Mountain Chickadees, Yellow-rumped Warblers, Downy Woodpeckers, Chestnut-backed Chickadees, and Red-breasted Nuthatches.

Conservation: Golden-crowned Kinglets are numerous, although populations declined

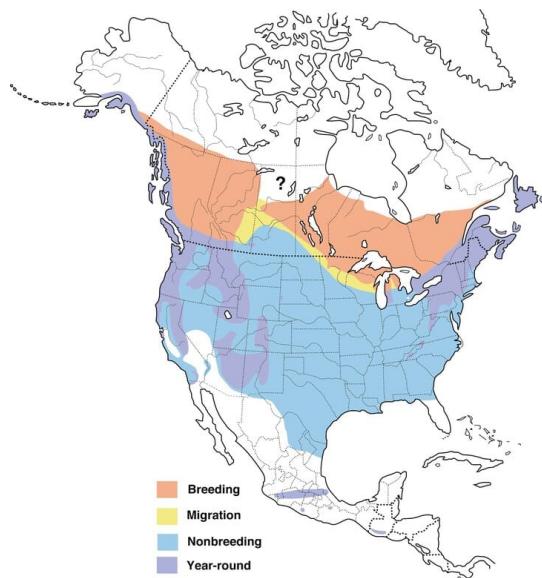
between 1966 and 2014, according to the North American Breeding Bird Survey. In the U.S., the species declined by over 2.5% per year during this time, resulting in an overall decline of 75%. Partners in Flight estimates a global breeding population of 100 million, with 87% spending some part of the year in the U.S., 67% in Canada, and 4% wintering in Mexico. The species rates an 8 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Golden-crowned Kinglets are pale olive above and gray below, with a black-and-white striped face and bright yellow-orange crown patch. They have a thin white wingbar and yellow edges to their black flight feathers.

Fun Facts

- > The tiny Golden-crowned Kinglet is hardier than it looks, routinely wintering in areas where nighttime temperatures can fall below –40° Fahrenheit.
- > Although it used to nest almost exclusively in boreal spruce-fir forests, the Golden-crowned Kinglet has been expanding its breeding range southward into conifer stands of the Midwest and Appalachians.
- > The Golden-crowned Kinglet usually raises two large broods of young, despite the short nesting season of the northern boreal forest. The female feeds her first brood only up until the day after they leave the nest. She then starts laying the second set of eggs while the male takes care of the first brood. The male manages to feed eight or nine nestlings himself, and he occasionally feeds the incubating female too.
- > Each of the Golden-crowned Kinglet's nostrils is covered by a single, tiny feather.
- > The oldest Golden-crowned Kinglet on record was a male, and at least 6 years, 4 months old when it was recaptured and rereleased by a Minnesota bird bander in 1976.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Tiny songbird with a rounded body, short wings, and a skinny tail. Adult males have a black-and-white striped face and bright yellow and orange crown patch.



Adult female

None



Adult male

Tiny songbird with a small bill. Adult males flash their orange crown when excited; otherwise it is usually concealed.



Juvenile

Juveniles look like messy adults without the head stripes and crown colors.



Adult male

Tiny with a small bill and skinny tail. Olive above with yellow edges on the wings and tail. Adult males usually conceal their orange crown.



Adult

Tiny with a round belly. Grayish white below and olive above with a black-and-white striped face and yellow crown. Note black legs and yellow feet.



Habitat

Found primarily in evergreen forests, often in the canopy.

Ruby-crowned Kinglet

Bird Characteristics

Scientific Name: *Corthylio calendula*

Order: Passeriformes

Family Name: Regulidae

Conservation Status: Low Concern

Length: 3.5-4.3 in (9-11 cm)

Weight: 0.2-0.3 oz (5-10 g)

Wingspan: 6.3-7.1 in (16-18 cm)

Basic Description: A tiny bird seemingly overflowing with energy, the Ruby-crowned Kinglet forages almost frantically through lower branches of shrubs and trees. Its habit of constantly flicking its wings is a key identification clue. Smaller than a warbler or chickadee, this plain green-gray bird has a white eyering and a white bar on the wing. Alas, the male's brilliant ruby crown patch usually stays hidden—your best chance to see it is to find an excited male singing in spring or summer.

Nesting Characteristics

Clutch Size: 5-12 eggs

Number of Broods: 1 brood

Egg Length: 0.5-0.6 in (1.3-1.5 cm)

Egg Width: 0.4-0.5 in (1-1.2 cm)

Incubation Period: 12-14 days

Nestling Period: 16-18 days

Egg Description: Drab white spotted with red-brown around large end.

Condition at Hatching: Helpless and completely naked, without any down.

Nest Placement: Ruby-Crowned Kinglets make their nests in trees, occasionally as high up as 100 feet. Females choose a nest site near the tree trunk or suspended from small twigs and

branchlets. Because of the nest site's height and often remote location, not much is known about kinglet nesting habits. Their nest sites, chosen by the females, are protected and often hidden by overhanging foliage.

Nest Description: It takes Ruby-Crowned Kinglet females five days to build their nests, making trips every five minutes or so to gather materials: grasses, feathers, mosses, spiderwebs and cocoon silk for the outer structure, fine plant material and fur for the inner lining. When completed, the globe-shaped nest is 4 inches wide and 5-6 inches deep, and requires regular maintenance to keep it from disintegrating. Inside, it's about 3 inches across and 2 inches deep. The nest is elastic enough that it can stretch as the brood grows.

Bird Information

Habitat: In summer, Ruby-Crowned Kinglets are common in spruce-fir forests in the northwestern United States and across Canada. They also live in mixed woods, isolated trees in meadows, coniferous and deciduous forests, mountain-shrub habitat, and floodplain forests of oak, pine, spruce or aspen. These birds nest high in trees, and so prefer older, taller, and denser stands to younger ones. During migration and winter they are common in woods and thickets across most of the continent.

Food: Ruby-Crowned Kinglets prey on spiders, pseudoscorpions, and many types of insects, including aphids, wasps, ants, and bark beetles. Kinglets usually forage in high tree foliage, hovering and pecking in order to glean insects from the surface of leaves and branches. These birds also eat a small amount of seeds and fruit, from poison-oak berries to the pulp of dogwood berries.

Behavior: Breeding pairs of Ruby-Crowned Kinglets stay together for two months, until their chicks fledge. Ruby-Crowned Kinglets use their long, bubbly, and amazingly loud songs to establish territories; this is more energy efficient than chasing and less dangerous than fighting. They can be recognized by a constant flicking of their wings.

Conservation: Ruby-crowned Kinglets are common and overall, despite regional increases and declines, their numbers were stable between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 90 million with 72% spending some part of the year in the U.S., 81% in Canada, and 26% wintering in Mexico. The species rates a 6 out of 20 on the Continental Concern Score. Ruby-crowned Kinglet is not on the

Color Pattern: Ruby-crowned Kinglets are olive-green birds with a prominent white eyering and white wingbar. This wingbar contrasts with an adjacent blackish bar in the wing. The "ruby crown" of the male is only occasionally visible.

Fun Facts

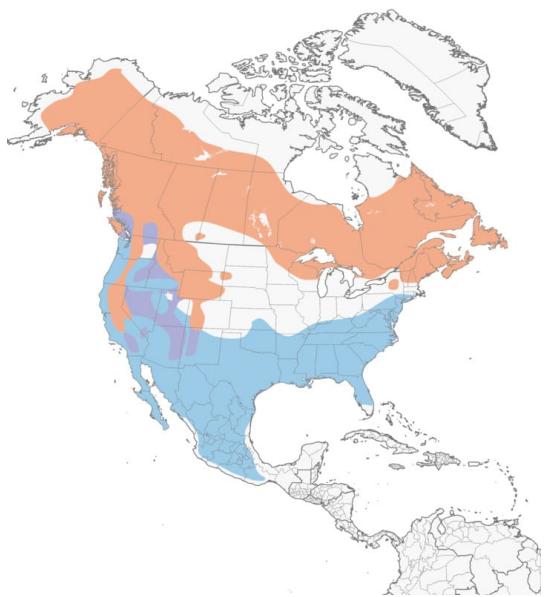
-> The Ruby-crowned Kinglet is a tiny bird that lays a very large clutch of eggs—there can be up to 12 in a single nest. Although the eggs themselves weigh only about a fiftieth of an ounce, an entire clutch can weigh as much as the female herself.

-> Ruby-crowned Kinglets seem nervous as they flit through the foliage, flicking their wings nearly constantly. Keeping an eye out for this habit can be a useful aid to identifying kinglets.

-> Metabolic studies on Ruby-crowned Kinglets suggest that these tiny birds use only about 10 calories (technically, kilocalories) per day.

-> The oldest known Ruby-crowned Kinglet was a female, and at least 4 years, 7 months old, when she was recaptured and re-released during banding operations in California in 2007. She had been banded in the same state in 2003.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Tiny songbird with an equally tiny tail and bill. Olive-green overall with a prominent white eyering and white wingbar. Note black bar below the wingbar.



Adult male

Tiny, small featured bird. Adult males flash a brilliant red crown when excited; otherwise it is concealed.



Adult

Olive-green above with a white wingbar and yellow-edged wing and tail

feathers. Note black bar below the wingbar.



Adult

The namesake crown is usually concealed, but white eyering and small size are good field marks.



Adult

Frequently flicks wings while foraging.



Adult

Tiny and acrobatic. Often forages at lower and middle levels flicking its wings as it goes.



Adult
None



Juvenile
None



Adult
Breeds in tall, dense evergreen forests. In winter and during migration, found in shrubby habitats, deciduous forests, parks, and suburbs.

Blue-gray Gnatcatcher

Bird Characteristics

Scientific Name: *Polioptila caerulea*

Order: Passeriformes

Family Name: Polioptilidae

Conservation Status: Low Concern

Length: 3.9-4.3 in (10-11 cm)

Weight: 0.2-0.3 oz (4.8-8.9 g)

Wingspan: 6.3 in (16 cm)

Basic Description: A tiny, long-tailed bird of broadleaf forests and scrublands, the Blue-gray Gnatcatcher makes itself known by its soft but insistent calls and its constant motion. It hops and sidles in dense outer foliage, foraging for insects and spiders. As it moves, this steely blue-gray bird conspicuously flicks its white-edged tail from side to side, scaring up insects and chasing after them. Pairs use spiderweb and lichens to build small, neat nests, which sit on top of branches and look like tree knots.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.5-0.6 in (1.3-1.6 cm)

Egg Width: 0.4-0.5 in (1.1-1.2 cm)

Incubation Period: 11-15 days

Nestling Period: 10-15 days

Egg Description: Pale blue spotted with reddish to dark brown.

Condition at Hatching: Born naked and helpless, with eyes closed and little movement.

Nest Placement: Male and female jointly choose a nest site, usually in a live broadleaf tree in a less dense bit of their territory. Nests are built well out on side limbs, often saddled against a

side branch or around a twig or knot for support. Nests tend to be higher than the midpoint of the tree.

Nest Description: Both sexes cooperate in building the neat, open, cuplike nest. They take up to two weeks to build the 2–3-inch wide nest, which is held together and attached to its branch with spider webbing and decorated with lichen. The nest's high walls are built in flexible layers. The main structural layer is built of fibrous materials like plant stems, bark strips, and grasses, all held together by spiderweb or caterpillar silk. Inner layers become progressively finer, and the roughly 1.5-inch-wide cup is lined with plant down, paper, cocoons, hair, or feathers. The outside is covered with webbing or silk decorated with bits of lichen or bark flakes. They often build a series of nests during a summer to counteract the effects of predation, mite infestations, or cowbird parasitism. Materials from earlier nests are frequently recycled to build later nests, which may be why they are usually completed more quickly than first nests. The male often builds second nests nearly solo, with the female finishing the inside of the first nest with softer materials.

Bird Information

Habitat: Blue-gray Gnatcatchers nest and forage in a broad range of wooded habitats across their extensive breeding range. Although they shun coniferous forests lacking rich understory growth, they use a range of broadleaf and mixed woodlands from chaparral to mature forests. They prefer moist areas, often near habitat edges. In the northernmost parts of their range, they nest along rivers and streams or near lakes, particularly in ash, maple, and oak forests. In the Southwest, oak and pinon-juniper woodlands, chaparral, and willow and cottonwood woodlands near water all provide habitat. Throughout the south-central and mid-Atlantic states, they claim territories in upland broadleaf and mixed forests as well as along streams and rivers. Farther south, they add swamp forests and pine flatwoods with oak understory. They favor the edges of forest gaps, so extensive patch-cut logging can provide abundant habitat. Their winter habitats are similarly various from region to region, and may include cypress swamps, citrus orchards, mangroves, savannah with scattered groves, and a range of woodlands from sea level swamp forests to highland oaks.

Food: Blue-gray Gnatcatchers eat small insects, spiders, and other invertebrates. Prey species vary across their extensive range. In the Southwest, for example, prey include treehoppers, froghoppers, leaf hoppers, plant bugs, tree bugs, leaf beetles, weevils, wolf spiders, caterpillars, and grasshoppers. In the Northeast, adult and larval moths can provide up to half of prey taken. The smallest prey are swallowed alive. The wings are torn off larger prey and their bodies beaten on a perch prior to being eaten. Parents generally feed the young these same foods, offering progressively larger whole prey as the chicks mature.

Behavior: The Blue-gray Gnatcatcher is a busy forager. It flits through dense outer foliage, hops and sidles along branches, peering with quick head movements to glean small insects and spiders. Flashing the white edges of their long tail may help them flush prey, which they then snap up while the gnatcatcher is perched, hovering, or sallying into the air after them. Pairs bond quickly on the breeding ground, with the male's initial aggression toward intruders

softening as he leads the female around the territory. They explore possible nesting sites together, with one or the other occasionally mimicking nest-building. These gnatcatchers are pugnacious defenders of their territories, attacking much larger birds as well as intruding neighbors. Adults mob potential predators with other small birds. The male and female of a pair often cooperate in challenging an interloper. The male's soft territorial songs and the female's aggressive calls quickly turn to extended chase, usually by the male. More intense aggression involves soaring aerial confrontation and bill snapping, and even prolonged grappling on the ground. Although the female does most of the brooding, the male shares nest building, incubation, and the feeding of nestlings and fledglings. While there seems to be little predation on adults, nestlings and eggs are taken by jays, magpies, and woodpeckers, and probably by snakes, crows, grackles, raccoons, squirrels, and chipmunks.

Conservation: Blue-gray Gnatcatchers are numerous and their overall populations have been stable and slightly increased between 1966 and 2014, according to the North American Breeding Bird Survey. Growth appears to have been particularly strong in the West. Partners in Flight estimates a global breeding population of 160 million, with 74% spending some part of the year in the U.S. and 65% in Mexico. They rate a 7 out of 10 on the Continental Concern Score and are not on the

Color Pattern: Blue-gray Gnatcatchers are pale blue-gray birds with grayish-white underparts and a mostly black tail with white edges. The underside of the tail is mostly white. The face is highlighted by a thin but obvious white eyering. In summer, male Blue-gray Gnatcatchers sport a black 'V' on their foreheads extending above their eyes.

Fun Facts

-> The Blue-gray Gnatcatcher's grayish coloring and long tail, as well as the way it mixes snippets of other birds' repertoires into its own high, nasal songs, have earned it the nickname "Little Mockingbird."

-> The nesting range of Blue-gray Gnatcatchers has been shifting northward since the early twentieth century. Over the last quarter of that century, the shift was about 200 miles, in concert with increasing average temperatures.

-> A pair of Blue-gray Gnatcatchers can build up to seven nests in a breeding season. They often re-use nest material from previous nests, which speeds re-nesting. This can be essential to breeding success, since predation, nest parasitism, or mite infestations frequently cause nest loss and brood failure.

-> Occasionally, significant numbers of Blue-gray Gnatcatchers "overshoot" on their spring migrations and end up much further north than usual. They may be carried past their target by strong southwest winds in warm regions, and by strong northerly winds on the west side of high pressure systems. Most probably make their way back south before nesting.

-> In spite of their name, gnats do not form a significant part of the Blue-gray Gnatcatcher's diet.

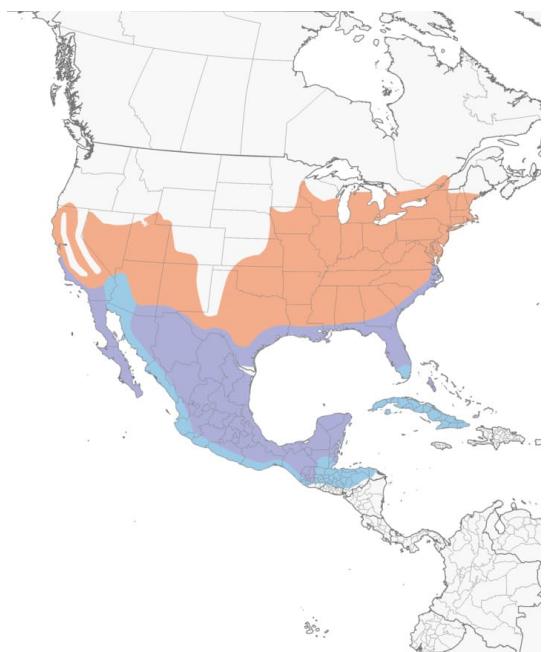
-> Fiercely territorial Blue-gray Gnatcatchers may use vocal displays and postures to chase a rival as far as 70 feet. Further resistance by an intruder may provoke midair confrontations,

with the two birds climbing steeply, breast-to-breast, snapping at each other.

-> The Blue-gray Gnatcatcher is the northernmost-occurring species of gnatcatcher, and the only truly migratory one. Most members of its genus are resident in Central and South America.

-> The oldest known Blue-Gray Gnatcatcher was a male, and at least 4 years, 2 months old, when it was recaptured at a banding station in Pennsylvania and rereleased.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

Tiny and slim with long legs, a long tail, and a thin, straight bill. Blue-gray above and white below. Breeding males have a black V on their foreheads extending above their eyes. Note black tail with white outer tail feathers and white eyering.



Female/nonbreeding male

Tiny songbird with a long, dark tail with white outer tail feathers. Females/nonbreeding birds are gray above with a thin white eyering.



Breeding male

Energetic and fluttery bird that often cocks its tail up or to the side. Note thin white eyering and white outer tail feathers.



Breeding male

Often holds its tail up over its back. The outer tail feathers are white, but birds in western North America have black at the base of the outer tail feathers, whereas birds in the East have entirely white outer tail feathers.



Female/nonbreeding male

Tiny songbird with a thin bill. Females/nonbreeding birds are grayish above and paler below with a thin white eyering.



Female/nonbreeding male

Tiny grayish songbird that conspicuously flicks its white-edged tail from side

to side. Note thin white eyering.



Breeding male
None



Breeding male
None



Adult (Cozumel)
None



Habitat

Found in deciduous forests and mixed woodlands, often in moister areas and near edges.

Eastern Bluebird

Bird Characteristics

Scientific Name: *Sialia sialis*

Order: Passeriformes

Family Name: Turdidae

Conservation Status: Low Concern

Length: 6.3-8.3 in (16-21 cm)

Weight: 1.0-1.1 oz (28-32 g)

Wingspan: 9.8-12.6 in (25-32 cm)

Basic Description: Most of the country drives during an eastern North American summer will turn up a few Eastern Bluebirds sitting on telephone wires or perched atop a nest box, calling out in a short, wavering voice or abruptly dropping to the ground after an insect. Marvelous birds to capture in your binoculars, male Eastern Bluebirds are a brilliant royal blue on the back and head, and warm red-brown on the breast. Blue tinges in the wings and tail give the grayer females an elegant look.

Nesting Characteristics

Clutch Size: 2-7 eggs

Number of Broods: 1-3 broods

Egg Length: 0.7-0.9 in (1.8-2.4 cm)

Egg Width: 0.6-0.8 in (1.5-1.9 cm)

Incubation Period: 11-19 days

Nestling Period: 17-21 days

Egg Description: Pale blue or, rarely, white.

Condition at Hatching: Naked except for sparse tufts of dingy gray down, eyes closed, clumsy.

Nest Placement: Eastern Bluebirds put their nests in natural cavities or in nest boxes or other artificial refuges. Among available natural cavities, bluebirds typically select old woodpecker

holes in dead pine or oak trees, up to 50 feet off the ground. Older bluebirds are more likely than younger ones to nest in a nest box, although individual birds often switch their preferences between nesting attempts. When given the choice in one study, bluebirds seemed to prefer snugger nest boxes (4 inches square instead of 6 inches square on the bottom) with slightly larger entrance holes (1.75 inch rather than 1.4 inch diameter).

Nest Description: After a male Eastern Bluebird has attracted a female to his nest site (by carrying material in and out of the hole, perching, and fluttering his wings), the female does all the nest building. She makes the nest by loosely weaving together grasses and pine needles, then lining it with fine grasses and occasionally horse hair or turkey feathers. Nest boxes in some places are so common that a single territory may contain several suitable holes. Females often build nests in each available hole, but typically only use one of these. Bluebirds may use the same nest for multiple broods.

Bird Information

Habitat: Eastern Bluebirds live in open country around trees, but with little understory and sparse ground cover. Original habitats probably included open, frequently burned pine savannas, beaver ponds, mature but open woods, and forest openings. Today, they're most common along pastures, agricultural fields, suburban parks, backyards, and golf courses.

Food: Insects caught on the ground are a bluebird's main food for much of the year. Major prey include caterpillars, beetles, crickets, grasshoppers, and spiders. In fall and winter, bluebirds eat large amounts of fruit including mistletoe, sumac, blueberries, black cherry, tupelo, currants, wild holly, dogwood berries, hackberries, honeysuckle, bay, pokeweed, and juniper berries. Rarely, Eastern Bluebirds have been recorded eating salamanders, shrews, snakes, lizards, and tree frogs.

Behavior: This small, brightly colored thrush typically perches on wires and fence posts overlooking open fields. The birds forage by fluttering to the ground to grab an insect, or occasionally by catching an insect in midair. Bluebirds can sight their tiny prey items from 60 feet or more away. They fly fairly low to the ground, and with a fast but irregular pattern to their wingbeats. Males vying over territories chase each other at high speed, sometimes grappling with their feet, pulling at feathers with their beaks, and hitting with their wings. The boxes and tree cavities where bluebirds nest are a hot commodity among birds that require holes for nesting, and male bluebirds will attack other species they deem a threat, including House Sparrows, European Starlings, Tree Swallows, Great Crested Flycatchers, Carolina Chickadees, and Brown-headed Nuthatches, as well as non-cavity nesters such as robins, Blue Jays, mockingbirds, and cowbirds. Males attract females to the nest with a display in which he carries bits of nesting material into and out of the nest. Once a female enters the nest hole with him, the pair bond is typically established and often remains intact for several seasons (although studies suggest that around one in every four or five eggs involves a parent from outside the pair).

Conservation: Eastern Bluebird populations increased between 1966 and 2015, according to

the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 22 million, with 86% spending at least some part of the year in the U.S., 22% in Mexico, and 1% breeding in Canada. The species rates a 7 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: Male Eastern Bluebirds are vivid, deep blue above and rusty or brick-red on the throat and breast. Blue in birds always depends on the light, and males often look plain gray-brown from a distance. Females are grayish above with bluish wings and tail, and a subdued orange-brown breast.

Fun Facts

-> The male Eastern Bluebird displays at his nest cavity to attract a female. He brings nest material to the hole, goes in and out, and waves his wings while perched above it. That is pretty much his contribution to nest building; only the female Eastern Bluebird builds the nest and incubates the eggs.

-> Eastern Bluebirds typically have more than one successful brood per year. Young produced in early nests usually leave their parents in summer, but young from later nests frequently stay with their parents over the winter.

-> Eastern Bluebirds occur across eastern North America and south as far as Nicaragua. Birds that live farther north and in the west of the range tend to lay more eggs than eastern and southern birds.

-> Eastern Bluebirds eat mostly insects, wild fruit and berries. Occasionally, Eastern Bluebirds have also been observed capturing and eating larger prey items such as shrews, salamanders, snakes, lizards and tree frogs.

-> The oldest recorded Eastern Bluebird was at least 10 years, 6 months old. It had been banded in New York in May 1989, and was found dead in South Carolina November 1999.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small thrush with a round head and big belly. Males are blue above with a rusty throat and chest.



Female/immature

Females are grayish above with bluish wings and tail, and a subdued orange-brown breast.



Juvenile

Juveniles have spotting on their backs and chest with variable amounts of blue in the wings and tail.



Female/immature

Small thrush with a round head and belly. Females are dull bluish gray above with varying amounts of blue on the wings and tail.



Adult male

Small thrush with a round head. Males are deep blue above and rusty or brick-red on the throat and breast.



Adult male

On males the rusty color wraps up the side of the neck.



Adult female

Small thrush with a round belly and head. Females are paler than males with a rusty chest and throat that wraps up the side of the neck.



Breeding male and female

Nests in holes in trees or nest boxes.

Wood Thrush

Bird Characteristics

Scientific Name: *Hylocichla mustelina*

Order: Passeriformes

Family Name: Turdidae

Conservation Status: Declining

Length: 7.5-8.3 in (19-21 cm)

Weight: 1.4-1.8 oz (40-50 g)

Wingspan: 11.8-13.4 in (30-34 cm)

Basic Description: The Wood Thrush's loud, flute-clear

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.1 in (2.3-2.8 cm)

Egg Width: 0.7-0.8 in (1.7-2.1 cm)

Incubation Period: 12-15 days

Nestling Period: 12-15 days

Egg Description: Turquoise-green with no marking.

Condition at Hatching: Helpless, eyes closed, with only wisps of gray down.

Nest Placement: The nest is usually in the lower branches of a sapling or shrub, where a fork provides good support and twigs or foliage provide shade and cover. The male may call attention to a spot by calling or by placing nest materials nearby, but the final decision is the female's.

Nest Description: The female begins nest building by laying down a platform of dead grass, leaves, stems, and sometimes paper or plastic. She weaves walls 2-6 inches high using the

same materials, ending up with a cup that's 4–6 inches across. She stamps the floor tight and uses the weight of her body to mold a 3-inch inner cup. Then she lines the cup with mud which she smoothes with her breast. She finally adds a covering of rootlets to bed the eggs. The process takes 3–6 days. A pair often raises two broods of youngsters per season, but may need 3 or 4 attempts to do so. A second nest after a successful first is often within 300 feet, but an unsuccessful nest may provoke a wider search for a new site.

Bird Information

Habitat: Wood Thrushes breed throughout mature deciduous and mixed forests in eastern North America, most commonly those with American beech, sweet gum, red maple, black gum, eastern hemlock, flowering dogwood, American hornbeam, oaks, or pines. They nest somewhat less successfully in fragmented forests and even suburban parks where there are enough large trees for a territory. Ideal habitat includes trees over 50 feet tall, a moderate understory of saplings and shrubs, an open floor with moist soil and decaying leaf litter, and water nearby. Favored understory species include southern arrowwood, smooth blackhaw, spicebush, coast pepperbush, rhododendron, and blueberry. In their winter range, they are most abundant in the interior of mature, shady, broad-leaved and palm tropical forests in lowlands. As in their temperate range, they will also inhabit forest edges and the denser understory of second-growth forests.

Food: Wood Thrushes feed mostly on leaf-litter invertebrates and fruits from shrubs. Their summer diet is predominantly invertebrates, including adult beetles and flies, caterpillars, spiders, millipedes, woodlice, and ants. Insects, snails, and salamanders found in trees are occasional prey. Fruits like spicebush, fox grape, blueberry, holly, elderberry, jack-in-the-pulpit, Virginia creeper, pokeweed, dogwood, black cherry, and black gum make up most of the rest of their diet. Parents feed chicks soft invertebrates and pre-softened fruits. In late summer and fall, after breeding season, Wood Thrushes shift their diet toward fruits (particularly fatty fruits) in preparation for the demands of migration. Fruits remain important on migration and in winter, though Wood Thrushes remain omnivorous, eating a wide variety of insects as well.

Behavior: One of the first songsters to be heard in the morning and among the last in the evening, the male sings his haunting

Conservation: Wood Thrush are still common throughout the deciduous forests of eastern North America, but populations declined by almost 2 percent per year between 1966 and 2015 resulting in a cumulative decline of 62% percent, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 11 million with 94% spending part of the year in the U.S., 39% in Mexico, and 6% breeding in Canada. Wood Thrush is a U.S.-Canada Stewardship species, and rates a 14 out of 20 on the Continental Concern Score. It is listed as a Tri-National Concern species and is on the

Color Pattern: Wood Thrushes are warm reddish-brown above and white with bold black spots on their underparts. Juveniles show a somewhat muted version of the same pattern. All have a bold, white eyering.

Fun Facts

-> A songbird like the Wood Thrush requires 10 to 15 times as much calcium to lay a clutch of eggs as a similar size mammal needs to nurture its young. That makes calcium-rich food supplements like snail shells crucial to successful breeding. These are rare in soils subject to acid rain, which may help explain patterns of population decline in the Wood Thrush.

-> Wood Thrushes are vulnerable to nest parasitism by Brown-headed Cowbirds, which lay their eggs in other birds' nests. Some species refuse to raise these eggs, but Wood Thrushes accept them as their own. In some Midwest forest edge habitats, virtually every Wood Thrush nest contains at least one cowbird egg.

-> The Wood Thrush is a consummate songster and it can sing "internal duets" with itself. In the final trilling phrase of its three-part song, it sings pairs of notes simultaneously, one in each branch of its y-shaped syrinx, or voicebox. The two parts harmonize with each other to produce a haunting, ventriloquial sound.

-> In many songbird species, males square off by "song matching": they answer a neighbor's song with the same song, perhaps seeing which male can perform it best. Wood Thrush males are different. They almost always answer a rival's song with a different one.

-> The male Wood Thrush does more feeding of the chicks than the female, freeing her up to start a second brood. After that next brood fledge, the pair divides them up and feeds them at separate sites in the territory.

-> Though pairs raise broods together, fooling around (or "extra-pair copulation") is common. At some sites, as many as 40 percent of a female's young are not fathered by its mate.

-> The Wood Thrush's scientific name

-> The oldest known Wood Thrush was a male and at least 10 years, 2 months old when he was recaptured and rereleased during banding operations in Connecticut in 2010. He had been banded in the same state in 2002.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Pot-bellied thrush with a short tail and a upright posture. Reddish-brown above and white with bold blackish spots below.

None



Medium-sized thrush with a large round belly covered in spots. Sings a flutelike clear song from understory and canopy perches.

None



Reddish brown above with a white eye ring and streaky cheeks.

None



Strong brownish black spotting on the underparts. Note white eyering.
None



Breeds in deciduous and mixed forests in the East with large trees and a moderate shrub layer.

None

American Robin

Bird Characteristics

Scientific Name: *Turdus migratorius*

Order: Passeriformes

Family Name: Turdidae

Conservation Status: Low Concern

Length: 7.9-11.0 in (20-28 cm)

Weight: 2.7-3.0 oz (77-85 g)

Wingspan: 12.2-15.8 in (31-40 cm)

Basic Description: The quintessential early bird, American Robins are common sights on lawns across North America, where you often see them tugging earthworms out of the ground. Robins are popular birds for their warm orange breast, cheery song, and early appearance at the end of winter. Though they're familiar town and city birds, American Robins are at home in wilder areas, too, including mountain forests and Alaskan wilderness.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-3 broods

Egg Length: 1.1-1.2 in (2.8-3 cm)

Egg Width: 0.8 in (2.1 cm)

Incubation Period: 12-14 days

Nestling Period: 13 days

Egg Description: Sky blue or blue-green and unmarked.

Condition at Hatching: Helpless at birth, mostly naked with spare whitish down.

Nest Placement: Female robins choose the nest sites, which are typically on one or several horizontal branches hidden in or just below a layer of dense leaves. Nests are typically in the lower half of a tree, although they can be built as high as the treetop. American Robins also

nest in gutters, eaves, on outdoor light fixtures, and other structures. In western prairies, American Robins may build their nests on the ground or in thickets, while in Alaska they sometimes nest on buildings or cliffs.

Nest Description: Females build the nest from the inside out, pressing dead grass and twigs into a cup shape using the wrist of one wing. Other materials include paper, feathers, rootlets, or moss in addition to grass and twigs. Once the cup is formed, she reinforces the nest using soft mud gathered from worm castings to make a heavy, sturdy nest. She then lines the nest with fine dry grass. The finished nest is 6-8 inches across and 3-6 inches high.

Bird Information

Habitat: American Robins are common birds across the continent. You'll find them on lawns, fields, and city parks, as well as in more wild places like woodlands, forests, mountains up to near treeline, recently burned forests, and tundra. During winter many robins move to moist woods where berry-producing trees and shrubs are common.

Food: American Robins eat large numbers of both invertebrates and fruit. Particularly in spring and summer they eat large numbers of earthworms as well as insects and some snails. (They have rarely been recorded eating shrews, small snakes, and aquatic insects.) Robins also eat an enormous variety of fruits, including chokecherries, hawthorn, dogwood, and sumac fruits, and juniper berries. One study suggested that robins may try to round out their diet by selectively eating fruits that have bugs in them.

Behavior: When foraging on the ground, the American Robin runs a few steps, then stops abruptly. In long grass, robins may hop or fly just above the ground powered by slow, powerful wingbeats. American Robins often find worms by staring, motionless, at the ground with the head cocked to one side. Robins sometimes fight over worms that others have caught. During fall and winter robins often roost in large flocks and spend much more time in trees. In spring, males attract females by singing, raising and spreading their tails, shaking their wings and inflating their white-striped throats. When pairs are forming in spring, you may see a display in which a male and female approach each other holding their bills wide open and touching them. American Robins are strong, straight, and fast fliers.

Conservation: American Robins are numerous and widespread, and their populations are stable or increasing throughout their range over the last few decades, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 310 million, with 79% spending some part of the year in the U.S., 45% in Canada, and 13% in Mexico. They rate a 5 out of 20 on the Continental Concern Score and are not on the

Color Pattern: American Robins are gray-brown birds with warm orange underparts and dark heads. In flight, a white patch on the lower belly and under the tail can be conspicuous. Compared with males, females have paler heads that contrast less with the gray back.

Fun Facts

-> An American Robin can produce three successful broods in one year. On average, though, only 40 percent of nests successfully produce young. Only 25 percent of those fledged young survive to November. From that point on, about half of the robins alive in any year will make it to the next. Despite the fact that a lucky robin can live to be 14 years old, the entire population turns over on average every six years.

-> Although robins are considered harbingers of spring, many American Robins spend the whole winter in their breeding range. But because they spend more time roosting in trees and less time in your yard, you're much less likely to see them. The number of robins present in the northern parts of the range varies each year with the local conditions.

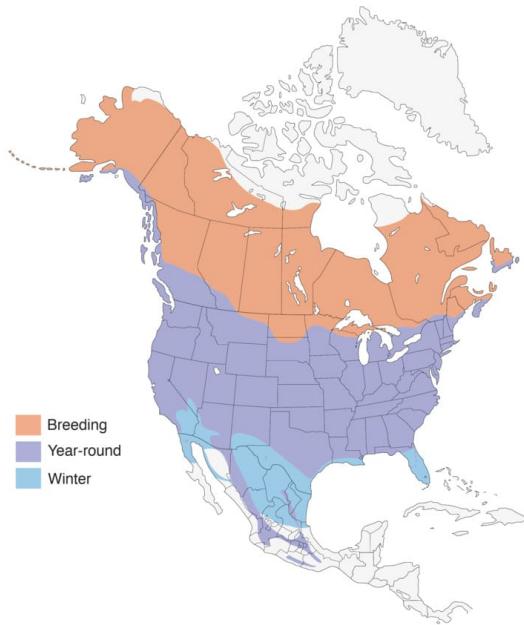
-> Robins eat a lot of fruit in fall and winter. When they eat honeysuckle berries exclusively, they sometimes become intoxicated.

-> Robin roosts can be huge, sometimes including a quarter-million birds during winter. In summer, females sleep at their nests and males gather at roosts. As young robins become independent, they join the males. Female adults go to the roosts only after they have finished nesting.

-> Robins eat different types of food depending on the time of day: more earthworms in the morning and more fruit later in the day. Because the robin forages largely on lawns, it is vulnerable to pesticide poisoning and can be an important indicator of chemical pollution.

-> The oldest recorded American Robin was 13 years and 11 months old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large round-bellied thrush. Males have a dark head, yellow bill, black streaks on the throat, and a rusty belly.



Adult

Eats berries in the winter. Some individuals not easily separated by sex.



Adult (San Lucas)

None



Female/immature male
Often seen tugging worms from yards.



Female/immature male
Female/immature birds are paler than males and many birds in the West are paler than those in the East and Northwest.



Female/immature male
Female/immature birds are paler than males with more white on the belly and throat.



Juvenile
Juveniles have spotting on the back and chest.



Adult male
Chubby thrush with grayish back and darker tail.



Adult male
Builds nests of twigs and grasses held together with mud.



Adult male
None



Adult male

During the winter, often found feasting on berries.

Gray Catbird

Bird Characteristics

Scientific Name: *Dumetella carolinensis*

Order: Passeriformes

Family Name: Mimidae

Conservation Status: Low Concern

Length: 8.3-9.4 in (21-24 cm)

Weight: 0.8-2.0 oz (23.2-56.5 g)

Wingspan: 8.7-11.8 in (22-30 cm)

Basic Description: If you're convinced you'll never be able to learn bird calls, start with the Gray Catbird. Once you've heard its catty mew you won't forget it. Follow the sound into thickets and vine tangles and you'll be rewarded by a somber gray bird with a black cap and bright rusty feathers under the tail. Gray Catbirds are relatives of mockingbirds and thrashers, and they share that group's vocal abilities, copying the sounds of other species and stringing them together to make their own song.

Nesting Characteristics

Clutch Size: 1-6 eggs

Number of Broods: 2-3 broods

Egg Length: 0.9-1.0 in (2.2-2.6 cm)

Egg Width: 0.5-0.6 in (1.2-1.6 cm)

Incubation Period: 12-15 days

Nestling Period: 10-11 days

Egg Description: Turquoise green, sometimes with small red spots.

Condition at Hatching: Naked, eyes closed, helpless and partially covered with dark brown or gray down.

Nest Placement: Catbirds usually build nests on horizontal branches hidden at the center of

dense shrubs, small trees, or in vines, including dogwood, hawthorn, cherry, rose, elderberry, grape, honeysuckle, and blackberry. Nests are typically around 4 feet off the ground, but may be on the ground or as high as 60 feet.

Nest Description: Females build the nests, with males sometimes supplying materials. Nests take 5-6 days to build. The final product is a bulky, open cup made of twigs, straw, bark, mud, and sometimes pieces of trash. It has a finely woven inner lining of grass, hair, rootlets, and pine needles. Finished nests are about 5.5 inches across and 2 inches deep.

Bird Information

Habitat: Gray Catbirds live amid dense shrubs, vine tangles, and thickets of young trees in both summer and winter. Human disturbance and development often create these habitats in the form of clearings, roadsides, fencerows, abandoned farmland, and residential areas. On tropical wintering grounds catbirds spend more time in forests than they do while in North America.

Food: In summer, Gray Catbirds eat mainly ants, beetles, grasshoppers, midges, caterpillars, and moths. When fruits are available they also eat holly berries, cherries, elderberries, poison ivy, greenbrier, bay, and blackberries. They are sometimes garden pests, eating or damaging raspberries, cherries, grapes, and strawberries.

Behavior: You'll find catbirds hopping through low vegetation or flying short distances at a time, just above the surrounding vegetation. Male catbirds are territorial during spring and summer, singing from prominent perches and chasing away intruders including several other species of birds. Males and females defend their own territories during winter, a time when territoriality is uncommon in many species. In altercations, Gray Catbirds may fluff up the breast and rump feathers, spread their tail, and open their bill toward the sky. Gray Catbirds sometimes destroy eggs and nestlings of woodland species including Eastern Wood-Pewee, Chipping Sparrow, and Song Sparrow.

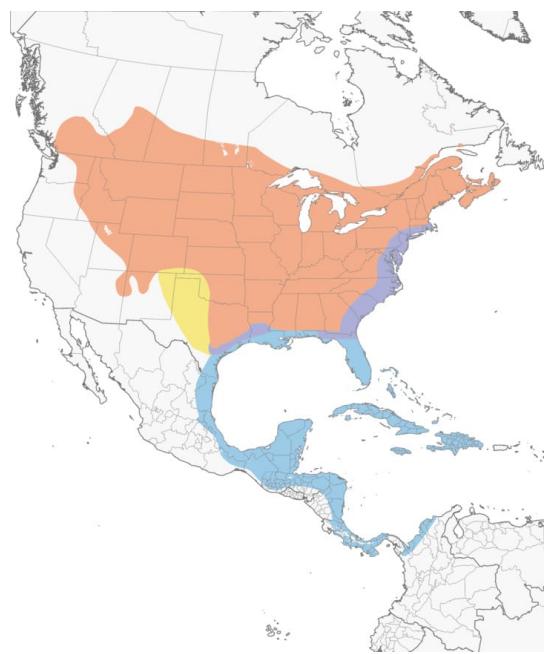
Conservation: Gray Catbirds are common and their populations were stable from 1966 to 2014, though there has been declines in the southeastern U.S., according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 27 million with 87% spending some part of the year in the U.S., 13% breeding in Canada, and 25% wintering in Mexico. They rate an 8 out of 20 on the Continental Concern Score and are not on the the

Color Pattern: Catbirds give the impression of being entirely slate gray. With a closer look you'll see a small black cap, blackish tail, and a rich rufous-brown patch under the tail.

Fun Facts

- > The Gray Catbird's long song may last for up to 10 minutes.
- > The male Gray Catbird uses his loud song to proclaim his territory. He uses a softer version of the song when near the nest or when a bird intrudes on his territory. The female may sing the quiet song back to the male.
- > The Gray Catbird belongs to the genus
- > The oldest known Gray Catbird was at least 17 years, 11 months old when it was recaptured and rereleased during banding operations in New Jersey in 2001. It had been banded in Maryland in 1984.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Medium-sized thrushlike songbird with a long tail. Gray overall with a darker cap and cinnamon undertail coverts.



Adult

Often perches holding its tail down giving it a hunchbacked look. Mimics the songs of other birds and sings at all hours of the day.



Adult

None



Adult

Long-tailed thrushlike bird. Gray overall with a darker cap and cinnamon under the tail.



Adult

Often secretive, but can be bold at times.



Adult

Found in dense shrubs, vine tangles, and thickets of young trees in both summer and winter.

Northern Mockingbird

Bird Characteristics

Scientific Name: *Mimus polyglottos*

Order: Passeriformes

Family Name: Mimidae

Conservation Status: Low Concern

Length: 8.3-10.2 in (21-26 cm)

Weight: 1.6-2.0 oz (45-58 g)

Wingspan: 12.2-13.8 in (31-35 cm)

Basic Description: If you've been hearing an endless string of 10 or 15 different birds singing outside your house, you might have a Northern Mockingbird in your yard. These slender-bodied gray birds apparently pour all their color into their personalities. They sing almost endlessly, even sometimes at night, and they flagrantly harass birds that intrude on their territories, flying slowly around them or prancing toward them, legs extended, flaunting their bright white wing patches.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 2-3 broods

Egg Length: 0.8-1.1 in (2-2.9 cm)

Egg Width: 0.6-0.8 in (1.6-2 cm)

Incubation Period: 12-13 days

Nestling Period: 12-13 days

Egg Description: Pale blue or greenish white splotched with red or brown.

Condition at Hatching: Naked, blind, helpless with light gray down.

Nest Placement: Northern Mockingbirds nest in shrubs and trees, typically 3-10 feet off the ground but sometimes as high as 60 feet. The male probably chooses the nest site and begins

building several nests before the female chooses one to finish and lay eggs in. Females may start laying in a second nest while the male is still caring for fledglings from the previous one. Northern Mockingbirds rarely ever reuse their nests.

Nest Description: Mockingbird nests consist of dead twigs shaped into an open cup, lined with grasses, rootlets, leaves, and trash, sometimes including bits of plastic, aluminum foil, and shredded cigarette filters. The male constructs the twig foundation while the female makes most of the lining.

Bird Information

Habitat: Year-round the Northern Mockingbird is found in areas with open ground and with shrubby vegetation like hedges, fruiting bushes, and thickets. When foraging on the ground, it prefers grassy areas, rather than bare spots. Common places to find Northern Mockingbirds include parkland, cultivated land, suburban areas and in second growth habitat at low elevations.

Food: Northern Mockingbirds eat mainly insects in summer but switch to eating mostly fruit in fall and winter. Among their animal prey are beetles, earthworms, moths, butterflies, ants, bees, wasps, grasshoppers, and sometimes small lizards. They eat a wide variety of berries, including from ornamental bushes, as well as fruits from multiflora rose. They've been seen drinking sap from the cuts on recently pruned trees.

Behavior: Northern Mockingbirds are found alone or in pairs throughout the year. They make themselves easily visible, sitting and singing atop shrubs, trees, utility lines, fences, and poles. On the ground they walk, run, and hop along the ground, tail cocked upwards, grabbing at prey on the ground or snatching insects just over the grass. Mockingbirds sometimes fly up and hover to grab at hanging fruit. The Northern Mockingbird is aggressive throughout the year. Females typically fend off other female mockingbirds, while males confront male intruders. Males disputing territory boundaries fly toward each other, land near the boundary, and face off, silently hopping from one side to another. Eventually, one bird retreats and the other chases it a short ways. If neither bird retreats, they may fly at each other, grappling with wings and claws and pecking at each other. Mockingbirds are also territorial around other bird species as well as dogs and cats. The flight style of mockingbirds is variable but typically leisurely, with showy wingbeats. Sometimes Northern Mockingbirds simply drop quickly from a perch with their wings folded.

Conservation: Northern Mockingbird populations declined by about 21% percent from 1966 to 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 32 million with 83% in the U.S., 16% in Mexico, and 6% in Canada. The species rates an 8 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Mockingbirds are overall gray-brown, paler on the breast and belly, with two white wingbars on each wing. A white patch in each wing is often visible on perched birds, and in flight these become large white flashes. The white outer tail feathers are also flashy in flight.

Fun Facts

-> It's not just other mockingbirds that appreciate a good song. In the nineteenth century, people kept so many mockingbirds as cage birds that the birds nearly vanished from parts of the East Coast. People took nestlings out of nests or trapped adults and sold them in cities such as Philadelphia, St. Louis, and New York, where, in 1828, extraordinary singers could fetch as much as \$50.

-> Northern Mockingbirds continue to add new sounds to their repertoires throughout their lives. A male may learn around 200 songs throughout its life.

-> The Northern Mockingbird frequently gives a "wing flash" display, where it half or fully opens its wings in jerky intermediate steps, showing off the big white patches. No one knows why it does this, but it may startle insects, making them easier to catch. On the other hand, it doesn't often seem to be successful, and different mockingbird species do this same display even though they don't have white wing patches.

-> Northern Mockingbirds sing all through the day, and often into the night. Most nocturnal singers are unmated males, which sing more than mated males during the day, too. Nighttime singing is more common during the full moon.

-> Northern Mockingbirds typically sing from February through August, and again from September to early November. A male may have two distinct repertoires of songs: one for spring and another for fall.

-> The female Northern Mockingbird sings too, although usually more quietly than the male does. She rarely sings in the summer, and usually only when the male is away from the territory. She sings more in the fall, perhaps to establish a winter territory.

-> The oldest Northern Mockingbird on record was at least 14 years, 10 months old when it was found in Texas.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Medium-sized slender songbird with a long tail. Adults are grayish above and whitish below with two white wingbars.



Adult

Medium-sized slender songbird with a long tail. Adults are grayish above and whitish below. Mimics songs of other songbirds.



Juvenile

Juveniles have spotted breasts.



Adult

Flashes white wing patches in flight.



Adult

White wing patches are distinctive.



Adult

Often runs and hops along the ground. Found alone or in pairs year-round.



Adult

Usually sits conspicuously on high vegetation, fences, eaves, or telephone wires. Found in towns, suburbs, backyards, parks, forest edges, and open land at low elevations.

Brown Thrasher

Bird Characteristics

Scientific Name: *Toxostoma rufum*

Order: Passeriformes

Family Name: Mimidae

Conservation Status: Low Concern

Length: 9.1-11.8 in (23-30 cm)

Weight: 2.1-3.1 oz (61-89 g)

Wingspan: 11.4-12.6 in (29-32 cm)

Basic Description: It can be tricky to glimpse a Brown Thrasher in a tangled mass of shrubbery, and once you do you may wonder how such a boldly patterned, gangly bird could stay so hidden. Brown Thrashers wear a somewhat severe expression thanks to their heavy, slightly downcurved bill and staring yellow eyes, and they are the only thrasher species east of Texas. Brown Thrashers are exuberant singers, with one of the largest repertoires of any North American songbird.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-2 broods

Egg Length: 1.0-1.1 in (2.6-2.7 cm)

Egg Width: 0.8-0.8 in (1.9-2 cm)

Incubation Period: 10-14 days

Nestling Period: 9-13 days

Egg Description: Glossy pale blue, pale greenish blue, or white, with many red-brown speckles.

Condition at Hatching: Eyes closed; pink skin with scattered tufts of gray-white down.

Nest Placement: The male and female both help select the nest site, usually low in a tree or thorny shrub. They use forsythia, privet, gooseberry, sumac, Osage-orange, multiflora rose,

eastern redcedar, elm, and honey locust. Occasionally they nest right on the ground.

Nest Description: Males and females collaborate on the nest, a bulky cup made of twigs, dead leaves, thin bark, grass stems, and well-cleaned rootlets. The inside of the cup is a couple of inches deep and 3.5 inches across. If they start early in the season, the pair will spend up to a week building a nest, whereas later in the season they may complete one in just a few days.

Bird Information

Habitat: In eastern North America, Brown Thrashers nest in thickets, hedgerows, forest edges, and overgrown clearings in deciduous forest. Farther west, in the Great Plains, they breed in fencerows, shelterbelts, and woody draws. They're often found in woodlands with cottonwood, willow, dogwood, American plum, saltcedar, hawthorn, pitch pine, or scrub oak. On rare occasions they breed in backyards and gardens. Brown Thrashers winter in the southern part of their breeding range and also move into nonbreeding habitat throughout central Texas. They are the only thrasher east of the Rocky Mountains and central Texas.

Food: Brown Thrashers eat mostly insects and other arthropods along with some fruits, seeds, and nuts. They typically feed on the ground, sweeping their bills through the leaf litter and soil with quick, sideways motions. They also forage in clusters of dead leaves on trees, eat fruit right off of berry bushes, glean seeds from weed stems, and sometimes catch insects in the air. The animal portion of their diet includes many kinds of beetles, along with grubs, wireworms, army worms, cutworms, tent caterpillars, gypsy-moth caterpillars, leafhoppers, treehoppers, cicadas, grasshoppers, crickets, wasps, bees, harvestmen, sowbugs, lizards, snakes, and tree frogs. The fruit portion of their diet includes blueberry, huckleberry, holly, elderberries, pokeberries, hackberries, Virginia creeper, sour gum, bayberry, sumac, raspberry, currant, grape, cherry, and strawberry.

Behavior: Brown Thrashers spend most of their time near or on the ground, walking, running, or hopping. When disturbed at the nest, they drop to the ground and dart into dense cover. They feed by sweeping their long bills through leaf litter to uncover insects and other invertebrates. They are slow, short-distance fliers with a distinctive jerky, fluttering flight style. Brown Thrashers are monogamous during a breeding season, but it isn't known whether pairs stay together from year to year. They breed in such dense vegetation that little is known of their courtship; the few observations that exist suggest that a courting pair presents each other with twigs or dead leaves, after which the male may briefly chase the female before mating. They defend territories of variable size, and they are very aggressive toward intruding Brown Thrashers and toward potential nest predators, which include snakes (racers as well as garter, king, rat, bull, and milk snakes) and dogs. Sometimes Brown Thrashers strike predators with their bills hard enough to draw blood.

Conservation: Brown Thrashers are fairly common birds but their numbers have been declining for the last several decades. According to the North American Breeding Bird Survey, between 1966 and 2015 populations declined by 41%. Partners in Flight estimates the global breeding population at 4.9 million, with 100% spending some part of the year in the U.S., and 8%

breeding in Canada. They rate an 11 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Brown Thrashers are foxy brown birds with heavy, dark streaking on their whitish underparts. The face is gray-brown and the wings show two black-and-white wingbars. They have bright-yellow eyes.

Fun Facts

-> An aggressive defender of its nest, the Brown Thrasher is known to strike people and dogs hard enough to draw blood.

-> Brown Thrashers are accomplished songsters that may sing more than 1,100 different song types and include imitations of other birds, including Chuck-will's-widows, Wood Thrushes, and Northern Flickers.

-> At least one early naturalist thought the Brown Thrasher's song was underappreciated, writing "Much of the [acclaim] which has fallen to the Mockingbird is really due to the unperceived efforts of the Brown Thrasher. It is the opinion of many ornithologists that the song... is richer, fuller, and definitely more melodious than that of

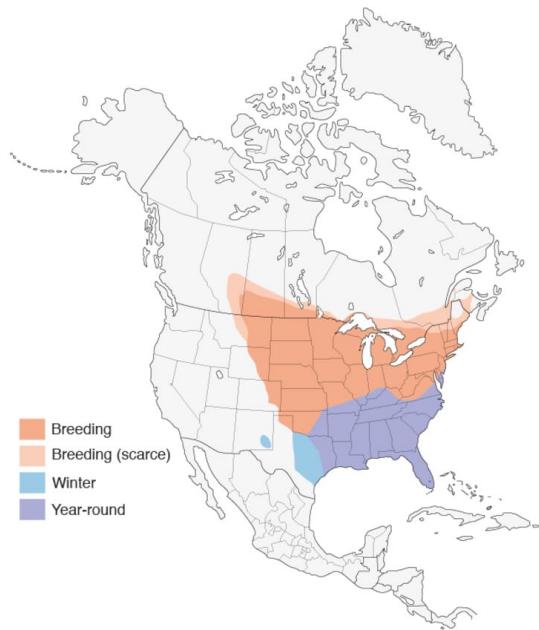
-> Both males and females help incubate the eggs and feed the young. Nestlings sometimes leave the nest fully feathered within nine days of hatching—earlier than either of their smaller relatives, the Northern Mockingbird and Gray Catbird. Shrubby habitats are popular hideouts for nest predators, which may explain why the thrashers fledge so quickly for birds of their size.

-> Brown Thrashers are the largest common host of parasitic Brown-headed Cowbirds. The thrashers do put up some resistance, often rejecting cowbird eggs that are laid in their nests.

-> The Brown Thrasher is considered a short-distance migrant, but two individuals have been recorded in Europe: one in England and another in Germany.

-> The oldest Brown Thrasher on record was at least 12 years, 10 months old, and was found in North Carolina.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult

Large songbirds with long proportions—long, sturdy legs, a long tail, and a long, slightly curved bill. Reddish brown above with thin black-and-white wing bars and bold dark streaking below.



Adult

Large songbird with a long, slightly curved bill. Reddish brown above with a yellow eye.



Adult

Slender and long-tailed with bold streaking down the breast.



Adult
None



Adult
None



Habitat
Found in scrubby fields, dense regenerating woods, thickets, hedgerows, and forest edges.

Cedar Waxwing

Bird Characteristics

Scientific Name: *Bombycilla cedrorum*

Order: Passeriformes

Family Name: Bombycillidae

Conservation Status: Low Concern

Length: 5.5-6.7 in (14-17 cm)

Weight: 1.1 oz (32 g)

Wingspan: 8.7-11.8 in (22-30 cm)

Basic Description: A treat to find in your binocular viewfield, the Cedar Waxwing is a silky, shiny collection of brown, gray, and lemon-yellow, accented with a subdued crest, rakish black mask, and brilliant-red wax droplets on the wing feathers. In fall these birds gather by the hundreds to eat berries, filling the air with their high, thin, whistles. In summer you're as likely to find them flitting about over rivers in pursuit of flying insects, where they show off dazzling aeronautics for a forest bird.

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-1.1 in (1.6-2.9 cm)

Egg Width: 0.6-0.7 in (1.4-1.8 cm)

Incubation Period: 11-13 days

Nestling Period: 14-18 days

Egg Description: Pale blue or blue gray sometimes spotted with black or gray.

Condition at Hatching: Naked, blind, helpless, weak, and quiet. Hatchlings weigh about 3.1 grams, or a little more than one-tenth of an ounce.

Nest Placement: Cedar Waxwing pairs look for nest sites together, but the female makes the

decision. She typically chooses the fork of a horizontal branch, anywhere from 3 to 50 feet high. Many tree species are used, including maples, pines, red cedar, white cedar, apple, pear, hawthorn, and bur oak. Sometimes waxwings put their nests in vertical forks, vine tangles, or resting on a single horizontal branch.

Nest Description: Female waxwings do almost all the nest building; males may do some construction for the second nest of a season. The female weaves twigs, grasses, cattail down, blossoms, string, horsehair, and similar materials into a bulky cup about 5 inches across and 3 inches high. She lines this cup with fine roots, grasses, and pine needles and may decorate the outside with fruiting grasses or oak and hickory catkins. Construction takes 5 to 6 days and may require more than 2,500 individual trips to the nest. Waxwings occasionally save time by taking nest materials from other birds' nests, including Eastern Kingbirds, Yellow-throated Vireos, orioles, robins, and Yellow Warblers.

Bird Information

Habitat: Cedar Waxwings inhabit deciduous, coniferous, and mixed woodlands, particularly areas along streams. You may also find them in old fields, grasslands, sagebrush, and even along desert washes. With the spread of ornamental berry trees in landscaping, Cedar Waxwings are increasingly common in towns and suburbs. In winter, Cedar Waxwings are most abundant around fruiting plants in open woodlands, parks, gardens, forest edges, and second-growth forests. Birds that winter in the tropics tend to inhabit highlands.

Food: Cedar Waxwings feed mainly on fruits year-round. In summer, they feed on fruits such as serviceberry, strawberry, mulberry, dogwood, and raspberries. The birds' name derives from their appetite for cedar berries in winter; they also eat mistletoe, madrone, juniper, mountain ash, honeysuckle, crabapple, hawthorn, and Russian olive fruits. In summer Cedar Waxwings supplement their fruit diet with protein-rich insects including mayflies, dragonflies, and stoneflies, often caught on the wing. They also pick items such as scale insects, spruce budworm, and leaf beetles directly from vegetation.

Behavior: Cedar Waxwings are social birds that form large flocks and often nest in loose clusters of a dozen or so nests. When feeding on fruits, Cedar Waxwings pluck them one by one and swallow the entire thing at once. They typically feed while perched on a twig, but they're also good at grabbing berries while hovering briefly just below a bunch. When eating insects, waxwings either fly out from an exposed perch, or make long, zig-zagging flights over water. During courtship, males and females hop towards each other, alternating back and forth and sometimes touching their bills together. Males often pass a small item like a fruit, insect, or flower petal, to the female. After taking the fruit, the female usually hops away and then returns giving back the item to the male. They repeat this a few times until, typically, the female eats the gift. Cedar Waxwings have a strong, steady flight style with fairly constant wingbeats.

Conservation: Cedar Waxwing populations were stable between 1966 and 2015, and in some areas showed increases, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 52 million, with 70% spending some part of

the year in the U.S., 55% in Canada, and 18% wintering in Mexico. The species rates a 6 out of 20 on the Continental Concern Score. Cedar Waxwing is not on the

Color Pattern: Cedar Waxwings are pale brown on the head and chest fading to soft gray on the wings. The belly is pale yellow, and the tail is gray with a bright yellow tip. The face has a narrow black mask neatly outlined in white. The red waxy tips to the wing feathers are not always easy to see.

Fun Facts

-> The name "waxwing" comes from the waxy red secretions found on the tips of the secondaries of some birds. The exact function of these tips is not known, but they may help attract mates.

-> Cedar Waxwings with orange instead of yellow tail tips began appearing in the northeastern U.S. and southeastern Canada in the 1960s. The orange color is the result of a red pigment picked up from the berries of an introduced species of honeysuckle. If a waxwing eats enough of the berries while it is growing a tail feather, the tip of the feather will be orange.

-> The Cedar Waxwing is one of the few North American birds that specializes in eating fruit. It can survive on fruit alone for several months. Brown-headed Cowbirds that are raised in Cedar Waxwing nests typically don't survive, in part because the cowbird chicks can't develop on such a high-fruit diet.

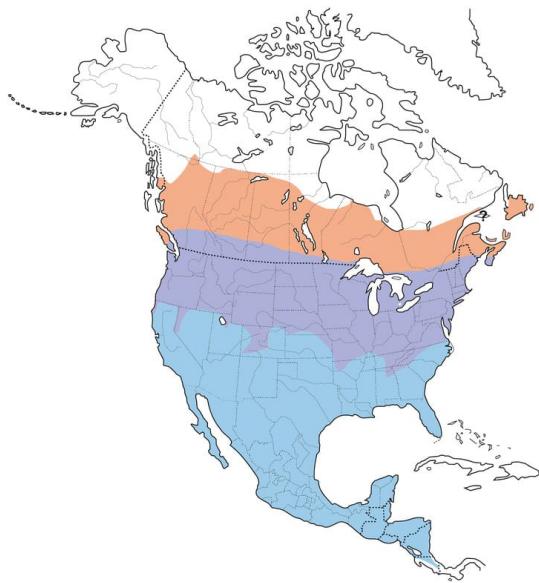
-> Many birds that eat a lot of fruit separate out the seeds and regurgitate them, but the Cedar Waxwing lets them pass right through. Scientists have used this trait to estimate how fast waxwings can digest fruits.

-> Because they eat so much fruit, Cedar Waxwings occasionally become intoxicated or even die when they run across overripe berries that have started to ferment and produce alcohol.

-> Building a nest takes a female Cedar Waxwing 5 to 6 days and may require more than 2,500 individual trips to the nest. They occasionally save time by taking nest materials from other birds' nests, including nests of Eastern Kingbirds, Yellow-throated Vireos, orioles, robins, and Yellow Warblers.

-> The oldest recorded Cedar Waxwing was a male and at least 7 years, 1 month old when he was recaptured and rereleased during banding operations in Maryland in 2014. He had been banded in the same state in 2008.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult
None



Adult
None



Adult
Prominent crest. Black mask with peachy brown head and chest, pale yellow belly, and yellow tip to dark tail. Sometimes has red tips to the secondaries of the wing.



Juvenile

Juveniles are more heavily marked than adults, with dusky streaks below, and have a fainter dark mask.



Adult

Some birds are less intensely colored, and lack the red feather tips in the wing.



Adult

None



Adult

Foraging birds often perch acrobatically at the tips of thin branches.



Juvenile
None



Flock
Flocks sometimes descend to puddles to drink and bathe.



Flock
None



Flock

Feeds on fruiting trees.



Flock

Often in large flocks, especially during the winter months.

Yellow Warbler

Bird Characteristics

Scientific Name: *Setophaga petechia*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.7-5.1 in (12-13 cm)

Weight: 0.3-0.4 oz (9-11 g)

Wingspan: 6.3-7.9 in (16-20 cm)

Basic Description: North America has more than 50 species of warblers, but few combine brilliant color and easy viewing quite like the Yellow Warbler. In summer, the buttery yellow males sing their sweet whistled song from willows, wet thickets, and roadsides across almost all of North America. The females and immatures aren't as bright, and lack the male's rich chestnut streaking, but their overall warm yellow tones, unmarked faces, and prominent black eyes help pick them out.

Nesting Characteristics

Clutch Size: 1-7 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.5-2.1 cm)

Egg Width: 0.5-0.6 in (1.2-1.6 cm)

Incubation Period: 10-13 days

Nestling Period: 9-12 days

Egg Description: Grayish or greenish white with dark spots.

Condition at Hatching: Helpless, with light-gray down, weighing about 1/20 of an ounce.

Nest Placement: Yellow Warblers build their nests in the vertical fork of a bush or small tree such as willow, hawthorn, raspberry, white cedar, dogwood, and honeysuckle. The nest is

typically within about 10 feet of the ground but occasionally up to about 40 feet.

Nest Description: The female builds the nest over a period of about 4 days. First she builds a cup of grasses, bark strips, and plants such as nettles. She places plant fibers, spiderwebs, and plant down around the outside. The inner cup is lined with deer hair, feathers, and fibers from cottonwood, dandelion, willow, and cattail seeds. If a cowbird lays its eggs in a Yellow Warbler's nest, the warbler often begins building a new nest directly on top of the old one, abandoning both its own eggs and the cowbird's.

Bird Information

Habitat: Yellow Warblers spend the breeding season in thickets and other disturbed or regrowing habitats, particularly along streams and wetlands. They are often found among willows but also live in dwarf birch stands in the tundra, among aspen trees in the Rockies, and along the edges of fields in the East, where you may find them among alder or dogwood as well as orchards, blueberry bogs, and overgrown power-line cuts. In the West they may occur up to about 9,000 feet elevation. On their wintering grounds Yellow Warblers live in mangrove forests, dry scrub, marshes, and forests, typically in lowlands but occasionally up to 8,500 feet elevation.

Food: Yellow Warblers eat mostly insects that they pick from foliage or capture on short flights or while hovering to reach leaves. Typical prey include midges, caterpillars, beetles, leafhoppers and other bugs, and wasps.

Behavior: Yellow Warblers forage along slender branches of shrubs and small trees, picking off insect prey as they go or briefly hovering to get at prey on leaves. Singing males perch near the tops of the bushes or trees in their territory. As male Yellow Warblers are setting up territories they may perform a "circle flight" in which they fly toward a neighboring male or female in a horizontal, semicircular path. A male may also fly slowly with fast, exaggerated wingbeats away from a female he is courting or a male he is competing with. As these territorial encounters proceed, males start by singing at each other; as the dispute goes on, the songs get quieter or switch to chip notes as the males begin to chase each other. Yellow Warblers typically form monogamous pairs that sometimes last more than one breeding season and reform the next. Yellow Warblers defend their nesting territories from many species, including other warbler species, chickadees, House Wrens, blackbirds, and Eastern Kingbirds. They may even chase off other warbler species while on their wintering grounds. Common predators of Yellow Warbler nests include garter snakes, red squirrels, jays, crows, raccoons, weasels, skunks, and domestic or feral cats.

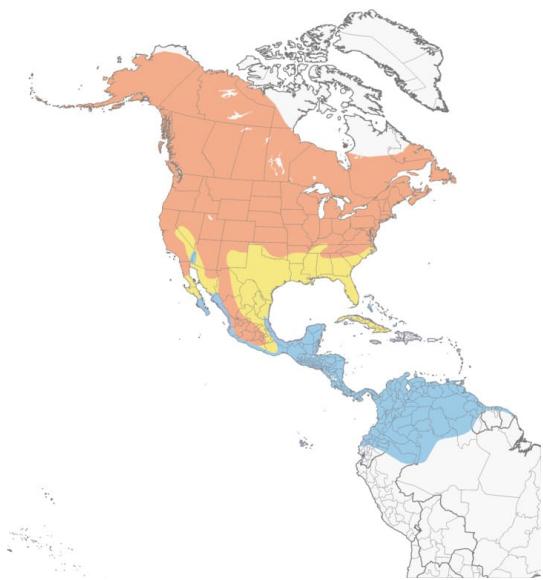
Conservation: Yellow Warblers are one of the most numerous warblers in North America but their populations have been slowly declining, and have decreased by 25% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 90 million with 37% spending some part of the year in the U.S., 15% in Mexico, and 57% breeding in Canada. They rate a 6 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Yellow Warblers are uniformly yellow birds. Males are a bright, egg-yolk yellow with reddish streaks on the underparts. Both sexes flash yellow patches in the tail. The face is unmarked, accentuating the large black eye.

Fun Facts

- > In addition to the migratory form of the Yellow Warbler that breeds in North America, several other resident forms can be found in Mexico, Central America, and the Caribbean. Males in these populations can have chestnut caps or even chestnut covering the entire head.
- > The nests of the Yellow Warbler are frequently parasitized by the Brown-headed Cowbird. The warbler often builds a new nest directly on top of the parasitized one, sometimes resulting in nests with up to six tiers.
- > Life can be dangerous for a small bird. Yellow Warblers have occasionally been found caught in the strands of an orb weaver spider's web.
- > The oldest-known Yellow Warbler was a female, and was at least 11 years old when she was recaptured and released during banding operations in New York.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male (Northern)

Small, round-headed warbler with a beady black eye and stout bill. Adult males are bright yellow overall with a yellow-green back and chestnut streaks on the breast.



Adult female (Northern)

Small, round-headed warbler with a beady black eye and stout bill. Females are yellow overall with a yellow-green back and mostly unstreaked yellow underparts.



Adult male (Mangrove)

Yellow (Mangrove) Warblers along the coast of Mexico, Central America, and northern South America have chestnut heads and chestnut streaking on the breast.



Female/immature (Mangrove)
None



Adult male (Golden)
Most Yellow (Golden) Warblers have a chestnut-capped and are residents in mangroves in the West Indies.



Immature (Northern)
Immatures are paler yellow overall, although some can be almost entirely grayish.



Immature (Northern)

Immatures vary from pale yellow to brownish to grayish. Note large beady black eye and stout bill.



Adult male (Northern)

Small, round-headed warbler with a beady black eye and stout bill. Adult males are bright yellow overall with a yellow-green back and chestnut streaks on the breast.



Adult male (Northern)

Breeds in shrubby thickets and woods, particularly along watercourses and in wetlands.



Adult male (Northern)

Distinctive entirely yellow warbler. Often found foraging in shrubby understories.

Magnolia Warbler

Bird Characteristics

Scientific Name: *Setophaga magnolia*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-5.1 in (11-13 cm)

Weight: 0.2-0.5 oz (6-15 g)

Wingspan: 6.3-7.9 in (16-20 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.7 in (1.5-1.8 cm)

Egg Width: 0.4-0.5 in (1.1-1.3 cm)

Incubation Period: 11-13 days

Nestling Period: 8-10 days

Egg Description: White, with variable speckles or spots.

Condition at Hatching: Helpless with tufts of black down.

Nest Placement: Magnolia Warblers nest in dense conifers such as spruce, balsam fir, and hemlock. The nest is typically on a horizontal branch close to the trunk of the tree and is less than 10 feet above the ground.

Nest Description: Males and females weave together a sloppy and flimsy-looking nest of grasses and weed stalks built on a foundation of twigs. They line the nest with horsehair fungus.

Bird Information

Habitat: Magnolia Warblers breed in dense stands of young conifer trees, especially spruce in the north and hemlock in the south. During migration they forage in dense areas along forest edges, woodlots, and parks. On the wintering grounds, they occur from sea level to 5,000 feet in a variety of areas including cacao plantations, orchards, forests, and thickets.

Food: Magnolia Warblers primarily eat caterpillars, especially spruce budworm when it is abundant. They also eat insects and spiders and occasionally take fruit in the fall. They tend to forage on the outer edges of branches, searching the undersides of needles and leaves for prey.

Behavior: Magnolia Warblers hop from branch to branch in dense stands of young conifer trees. They pick insects primarily from the undersides of conifer needles and foliage. Males sing most intensely at dawn and dusk and even sing while foraging. Males court females with song and show off the white spots on their tail, similar to the behavior of an American Redstart. To warn a territory intruder, males also spread their tail, flashing their white tail spots. Males and females maintain a shared territory on the breeding grounds, but separate territories on the wintering grounds. During migration they frequently join foraging flocks of chickadees, and they join mixed-species flocks on the wintering grounds.

Conservation: Magnolia Warblers are common and their populations increased by almost 1% per year from 1966 to 2015, according to the

Color Pattern: None

Fun Facts

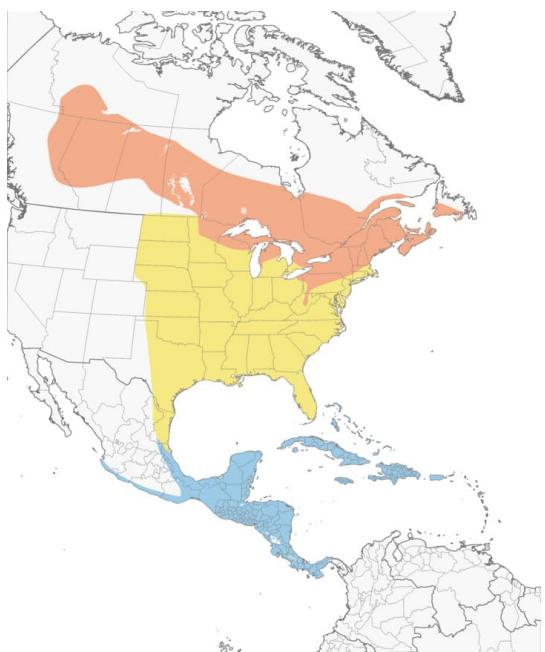
-> Though it has very specific habitat preferences in the breeding season, the Magnolia Warbler occupies a very broad range of habitats in winter: from sea level to 5,000 feet in cacao plantations, orchards, forests, and thickets.

-> In 1810, Alexander Wilson collected a warbler from a magnolia tree in Mississippi, giving it the English name "Black-and-yellow Warbler" and "magnolia" for the scientific species name, which became the common name over time.

-> The male Magnolia Warbler has two songs. The first song, issued in courtship and around the nest, consists of three short phrases with an accented ending. The second song, possibly issued in territory defense against other males, is similar to the first but is sweeter and less accented.

-> The oldest recorded Magnolia Warbler was a male and at least 8 years, 11 months old when he was recaptured and rereleased during banding operations in Ontario. He had been banded in the same area.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small-billed, long-tailed warbler. Adult males have distinctive black streaking that radiates from a black neck band creating a necklaced look. White undertail coverts and black-tipped tail are diagnostic at all ages.



Female/immature male

Small-billed, long-tailed warbler. Females/immatures have a gray head, a faint gray band across the neck, and 2 narrow white wingbars.



Adult female

Adult females do not have as strong of a black mask and lack the black

back seen on adult males, though some females show darker necklace stripes like a male. Adult females are often paler overall with thinner wingbars.



Female/immature male

Females/immatures have less black on the back and fainter streaking on the flanks and chest.



Adult male

Adult males have a black patch on the back, a wide white wing patch, and a black mask.



Female/immature male

White undertail coverts and black-tipped tail are diagnostic at all ages.

Females/immatures have a gray head and faint gray band across the neck.



Adult male

Adult males are bright yellow below with obvious black streaking on the chest and flanks as well as a black mask and black back.



Habitat

Found in dense stands of all ages during migration. Breeds in areas with young evergreen trees.

Yellow-rumped Warbler

Bird Characteristics

Scientific Name: *Setophaga coronata*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.7-5.5 in (12-14 cm)

Weight: 0.4-0.5 oz (12-13 g)

Wingspan: 7.5-9.1 in (19-23 cm)

Basic Description: Yellow-rumped Warblers are impressive in the sheer numbers with which they flood the continent each fall. Shrubs and trees fill with the streaky brown-and-yellow birds and their distinctive, sharp chips. Though the color palette is subdued all winter, you owe it to yourself to seek these birds out on their spring migration or on their breeding grounds. Spring molt brings a transformation, leaving them a dazzling mix of bright yellow, charcoal gray and black, and bold white.

Nesting Characteristics

Clutch Size: 1-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.8 in (1.7-2.1 cm)

Egg Width: 0.5-0.6 in (1.3-1.5 cm)

Incubation Period: 12-13 days

Nestling Period: 10-14 days

Egg Description: White, speckled with brown, reddish-brown, gray, or purplish gray.

Condition at Hatching: Helpless and naked with sparse brown down. Eyelids have dull white spots.

Nest Placement: Yellow-rumped Warblers put their nests on the horizontal branch of a conifer,

anywhere from 4 to about 50 feet high. Tree species include hemlock, spruce, white cedar, pine, Douglas-fir, and larch or tamarack. They may build their nests far out on a main branch or tuck it close to the trunk in a secure fork of two or more branches. Occasionally nests are built in a deciduous tree such as a maple, oak, or birch.

Nest Description: Females build the nest, sometimes using material the male carries to her. The nest is a cup of twigs, pine needles, grasses, and rootlets. She may also use moose, horse, and deer hair, moss, and lichens. She lines this cup with fine hair and feathers, sometimes woven into the nest in such a way that they curl up and over the eggs. The nest takes about 10 days to build. It's 3-4 inches across and about 2 inches tall when finished.

Bird Information

Habitat: Yellow-rumped Warblers spend the breeding season in mature coniferous and mixed coniferous-deciduous woodlands (such as in patches of aspen, birch, or willow). In the western U.S. and in the central Appalachian mountains, they are found mostly in mountainous areas. In the Pacific Northwest and the Northeast, they occur all the way down to sea level wherever conifers are present. During winter, Yellow-rumped Warblers find open areas with fruiting shrubs or scattered trees, such as parks, streamside woodlands, open pine and pine-oak forest, dunes (where bayberries are common), and residential areas. On their tropical wintering grounds they live in mangroves, thorn scrub, pine-oak-fir forests, and shade coffee plantations.

Food: Yellow-rumped Warblers eat mainly insects in the summer, including caterpillars and other larvae, leaf beetles, bark beetles, weevils, ants, scale insects, aphids, grasshoppers, caddisflies, craneflies, and gnats, as well as spiders. They also eat spruce budworm, a serious forest pest, during outbreaks. On migration and in winter they eat great numbers of fruits, particularly bayberry and wax myrtle, which their digestive systems are uniquely suited among warblers to digest. The habit is one reason why Yellow-rumped Warblers winter so much farther north than other warbler species. Other commonly eaten fruits include juniper berries, poison ivy, poison oak, greenbrier, grapes, Virginia creeper, and dogwood. They eat wild seeds such as from beach grasses and goldenrod, and they may come to feeders, where they'll take sunflower seeds, raisins, peanut butter, and suet. On their wintering grounds in Mexico they've been seen sipping the sweet honeydew liquid excreted by aphids.

Behavior: Yellow-rumped Warblers flit through the canopies of coniferous trees as they forage. They cling to the bark surface to look for hidden insects more than many warblers do, but they also frequently sit on exposed branches and catch passing insects like a flycatcher does. In winter, Yellow-rumped Warblers join flocks and switch to eating berries from fruiting shrubs. Sometimes the flocks are enormous groups consisting entirely of Yellow-rumped Warblers. If another bird gets too close, Yellow-rumped Warblers indicate the infraction by holding the body horizontally, fanning the tail, and raising it to form a right angle with its body. When males court females, they fluff their feathers, raise their wings and the feathers of the crown, and hop from perch to perch, chipping. They may also make display flights in which they glide back and forth or fly slowly with exaggerated wingbeats. The Yellow-rumped Warbler's flight is agile and swift,

and the birds often call as they change direction.

Conservation: Yellow-rumped Warblers are common and widespread, and populations are generally stable though they experienced a small decline from 1966 to 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 130 million with 58% spending some part of the year in the U.S., 71% in Canada, and 31% wintering in Mexico. The species rates a 6 out of 20 on the Continental Concern Score and are not on the

Color Pattern: In summer, both sexes are a smart gray with flashes of white in the wings and yellow on the face, sides, and rump. Males are very strikingly shaded; females are duller and may show some brown. Winter birds are paler brown, with bright yellow rump and usually some yellow on the sides.

Fun Facts

-> The Yellow-rumped Warbler is the only warbler able to digest the waxes found in bayberries and wax myrtles. Its ability to use these fruits allows it to winter farther north than other warblers, sometimes as far north as Newfoundland.

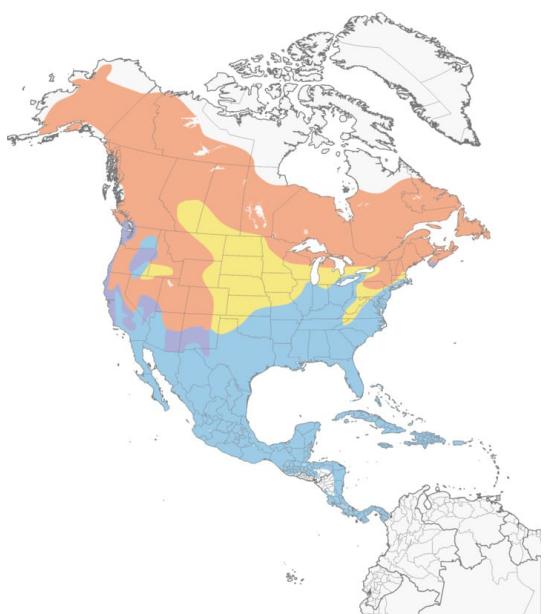
-> Male Yellow-rumped Warblers tend to forage higher in trees than females do.

-> Yellow-rumped Warblers are perhaps the most versatile foragers of all warblers. They're the warbler you're most likely to see fluttering out from a tree to catch a flying insect, and they're also quick to switch over to eating berries in fall. Other places Yellow-rumped Warblers have been spotted foraging include picking at insects on washed-up seaweed at the beach, skimming insects from the surface of rivers and the ocean, picking them out of spiderwebs, and grabbing them off piles of manure.

-> When Yellow-rumped Warblers find themselves foraging with other warbler species, they typically let Palm, Magnolia and Black-throated Green warblers do as they wish, but they assert themselves over Pine and Blackburnian warblers.

-> The oldest recorded Yellow-rumped Warbler was at least 7 years old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male (Myrtle)

Full-bodied Warbler. Adult males (Myrtle) have a black mask, a white throat, yellow patches on their sides, and a yellow rump.



Adult male (Audubon's)

Adult males (Audubon's) have a yellow throat and rump and yellow patches on their sides.



Adult male (Goldman's)

Residents in Guatemala and eastern Chiapas, Mexico have black breasts and heads unlike individuals from the north that have grayer heads.



Female (Myrtle)

Small songbird. Females (Myrtle) are brownish above with yellow patches on their sides, a yellow rump, and a white throat.



Female (Audubon's)

Females (Audubon's) tend to be grayer above with a yellow throat, yellow patches on their sides, and a yellow rump.



Female (Goldman's)

Resident females in Guatemala and eastern Chiapas, Mexico are darker brown-gray above with a yellow throat, yellow patches on their sides, a yellow rump, and a dark breast patch.



Immature (Myrtle)

Immatures (Myrtle) are brownish and streaky throughout with pale yellow patches on their sides and a yellow rump. Amount of yellow on the sides and the amount of streaking varies.



Female (Myrtle x Audubon's)

Females (Myrtle x Audubon's) have features of both groups. This individual has a browner back of a Myrtle but a yellow throat of Audubon's.



Female (Myrtle)

Females (Myrtle) are brownish above with yellow patches on their sides, a yellow rump, a white throat, and a darker ear patch. Intensity of yellow varies.



Female (Audubon's)
None



Adult male (Myrtle)
Yellow-rumped Warblers have a characteristic yellow rump that is often visible when perched.



Female (Myrtle)
Found in open evergreen forests and edges, and to a lesser extent deciduous forests during the summer. In fall and winter found in open woods and shrubby habitats, including coastal vegetation, parks, and residential areas.

Black-throated Green Warbler

Bird Characteristics

Scientific Name: *Setophaga virens*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-4.7 in (11-12 cm)

Weight: 0.3-0.4 oz (7-11 g)

Wingspan: 6.7-7.9 in (17-20 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1 brood

Egg Length: 0.6-0.7 in (1.5-1.8 cm)

Egg Width: 0.5-0.5 in (1.2-1.3 cm)

Incubation Period: 12 days

Nestling Period: 8-11 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: The female chooses the nest site, which is usually 3-10 feet off the ground (sometimes much higher) in a small tree or sapling, and is located close to the trunk. The "Wayne's" subspecies often nests higher up and farther from the trunk, in a cypress, oak, or magnolia.

Nest Description: The nest is small and cup-shaped, made of twigs, bark, and spider silk and lined with hair, mosses, and feathers. Finished nests are 3–4 inches in diameter and about 2

inches tall. The female does most of the nest building, taking 4–8 days to complete the task.

Bird Information

Habitat: The Black-throated Green Warbler occurs in a wide variety of forest habitats. They nest in conifer forests in the northwest of their range, mixed hardwoods forests in the southern Appalachians, and cypress swamps on the mid-Atlantic coast. Wintering birds are most common in the canopies of tall forests.

Food: They eat almost exclusively insects during the breeding season, especially caterpillars, which they glean from small branches on both coniferous and deciduous trees. They also take berries in migration and feed on the buds of cecropia trees while wintering in the tropics.

Behavior: Black-throated Green Warblers hop through arboreal vegetation, flying between trees but seldom above trees. The males are aggressive when on territory, attacking and chasing rivals. This is sometimes followed by the victor undertaking a shallow, mothlike flight. Males singing on territory often choose an exposed perch from which their yellow head will be conspicuous. Pairs are seasonally monogamous, remaining together until shortly after the young leave the nest. In fall migration this species often forms mixed-species flocks with other species of southbound warblers and resident songbirds. Black-throated Green Warblers also join mixed flocks of tropical species in winter.

Conservation: Black-throated Green Warblers are common and their populations increased by an estimated 41% between 1970 and 2014, according to

Color Pattern: None

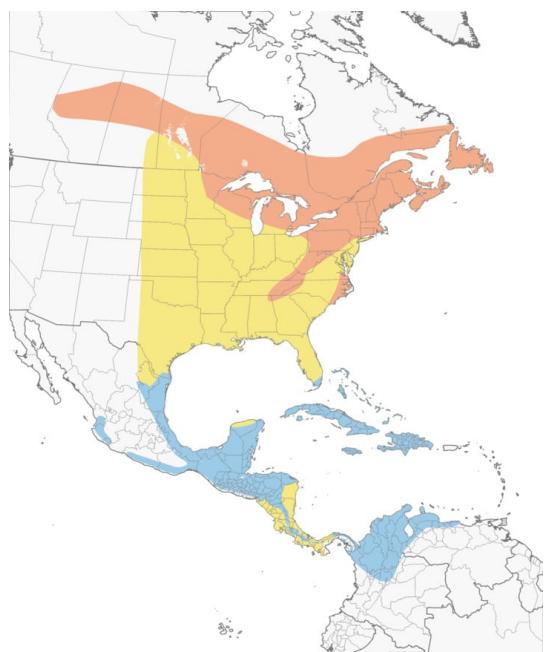
Fun Facts

- > One male Black-throated Green Warbler was observed singing 466 songs in one hour.
- > Black-throated Green Warblers are often thought of as birds of mountain forests, but a disjunct population nests in cypress swamps along the coast of Virginia and the Carolinas. Called "Wayne's" Black-throated Green Warbler, this subspecies averages smaller than other populations.

- > In areas where multiple species of warblers breed close together, Black-throated Green Warblers are generally dominant to Blackburnian Warblers, Yellow-rumped Warblers, and Northern Parulas, but subordinate to Magnolia Warblers.

- > The oldest recorded Black-throated Green Warbler was a male, and at least 4 years, 11 months old. He was banded and found in Nova Scotia.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small songbird. Adult males have a bright yellow face with a dusky ear patch, a black throat, and a green back. Note heavy black streaking on the sides.



Adult female

Adult females have a yellow face with a dusky ear patch, a white throat, and a green back. Note yellow wash across vent and black streaked sides.



Immature

Immatures have pale yellow faces with a dusky ear patch and white throat.

Streaking on the side can be crisp or messy as on this individual.



Adult female

Adult females have a yellow face with a dusky ear patch and a green back. Some females have bits of black on the throat. Note yellow wash across vent and black streaked sides.



Female/immature

Females/immatures have a yellow face with a dusky ear patch and a green crown and back.



Habitat

Breeds in boreal evergreen forests and evergreen-deciduous forests.

Black-and-white Warbler

Bird Characteristics

Scientific Name: *Mniotilla varia*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-5.1 in (11-13 cm)

Weight: 0.3-0.5 oz (8-15 g)

Wingspan: 7.1-8.7 in (18-22 cm)

Basic Description: One of the earliest-arriving migrant warblers, the Black-and-white Warbler's thin, squeaky song is one of the first signs that spring birding has sprung. This crisply striped bundle of black and white feathers creeps along tree trunks and branches like a nimble nuthatch, probing the bark for insects with its slightly downcurved bill. Though you typically see these birds only in trees, they build their little cup-shaped nests in the leaf litter of forests across central and eastern North America.

Nesting Characteristics

Clutch Size: 4-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.5-1.9 cm)

Egg Width: 0.5-0.6 in (1.3-1.4 cm)

Incubation Period: 10-12 days

Nestling Period: 8-12 days

Egg Description: Creamy white, pale bluish- or greenish-white, with speckles of brown or lavender.

Condition at Hatching: Helpless, with pink skin and dark gray down.

Nest Placement: The female Black-and-white Warbler selects a well-hidden nesting location at

the base of a tree, rock, stump, or fallen log, or under a bush or shrub. Nests are usually built on the ground but occasionally are placed in a cavity atop a tree stump, in a rock crevice, or on a mossy bank up to six feet high.

Nest Description: The round, open cup-shaped nest is constructed from dry leaves, bark strips, grass, and pine needles, reaching just over 5 inches in diameter and 5 inches high. The nest cup, which measures up to 3 inches in diameter and 2.5 inches high, is lined with moss, horsehair, and dried grasses.

Bird Information

Habitat: Black-and-white Warblers typically use deciduous forests and mixed forests of deciduous trees and conifers. They can be found in many habitats during migration, especially woodlots and forests in riparian settings. On their tropical wintering grounds Black-and-white Warblers use an immense range of habitats, including lawns, gardens, and other urban settings, fruit orchards, shade-coffee plantations, wetlands, mangroves, and all types of forests.

Food: Black-and-white Warblers eat mostly insects. Moth and butterfly larvae form the bulk of their diet during spring migration and throughout the breeding season. Other arthropod prey includes ants, flies, spiders, click and leaf beetles, wood-borers, leafhoppers, and weevils. They also feed on insects attracted to Yellow-Bellied Sapsucker sapwells.

Behavior: Black-and-white Warblers crawl along tree trunks and thick limbs as they probe methodically between bark fibers for grubs and insects. Unlike Brown Creepers, which tend to move up a tree as they feed, or nuthatches, which typically move downward, this warbler moves in every direction. They forage on dead limbs and bark as well as gleaning foliage at the tips of branches. Male Black-and-white Warblers arrive in early spring on their forested breeding grounds and set up territories that they defend aggressively, often singing as they chase off intruders. These defensive displays extend well past the time when such behavior has tapered off for other species. A courting male chases potential mates on his territory, perching nearby and fluttering his wings. Once the pair is established, the female leads her partner to likely nest spots at the base of a tree or fallen log, and takes the lead in constructing the well-camouflaged nest.

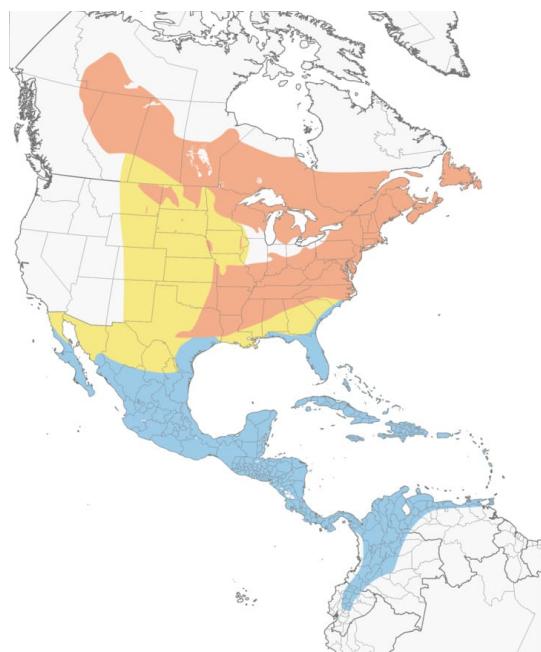
Conservation: Black-and-white Warblers are common, although populations declined by about 33% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 20 million, with 25% spending some part of the year in the U.S., 75% breeding in Canada, and 43% wintering in Mexico. They rate a 10 out of 20 on the Continental Concern Score and is not on the

Color Pattern: These birds are boldly striped in black and white. Their black wings are highlighted by two wide, white wing bars. Adult males have more obvious black streaking, particularly on the underparts and the cheek. Females (especially immatures) are paler, with less streaking and usually a wash of buff on the flanks. The undertail coverts have distinctive large black spots.

Fun Facts

- > The Black-and-white Warbler is the only member of the genus
- > Black-and-white Warblers have an extra-long hind claw and heavier legs than other wood-warblers, which help them hold onto and move around on bark.
- > As warblers go, Black-and-white Warblers are combative: they'll attack and fight with other species that enter their territory, including Black-capped Chickadees, Red-breasted Nuthatches, and American Redstarts. This aggressive behavior extends to the wintering grounds, where they defend territories and when feeding in mixed flocks will drive other Black-and-white Warblers away.
- > The oldest known Black-and-white Warbler was 11 years, 3 months old—a female that was banded in North Carolina in the 1950s and recovered in Pennsylvania more than a decade later.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small songbird with a thin, slightly curved bill. Striped black and white overall. Males have a black ear patch.



Adult female

Females are often paler, with a white throat, a grayish ear patch, and sometimes a wash of buff on the flanks.



Immature female

Small songbird with a slightly curved bill. Immature and female birds have a whiter throat and a grayish ear patch.



Adult male

Creeps up and down trees and main branches like a nuthatch.



Adult male

Heavily streaked black and white. Tail is dark with white spots on outer tail feathers.



Adult male

Small songbird that is heavily streaked black and white.



Adult female

Creeps up and down trees and main branches like a nuthatch.

American Redstart

Bird Characteristics

Scientific Name: *Setophaga ruticilla*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-5.1 in (11-13 cm)

Weight: 0.2-0.3 oz (6-9 g)

Wingspan: 6.3-7.5 in (16-19 cm)

Basic Description: A lively warbler that hops among tree branches in search of insects, the male American Redstart is coal-black with vivid orange patches on the sides, wings, and tail. True to its Halloween-themed color scheme, the redstart seems to startle its prey out of the foliage by flashing its strikingly patterned tail and wing feathers. Females and immature males have more subdued yellow “flash patterns” on a gray background. These sweet-singing warblers nest in open woodlands across much of North America.

Nesting Characteristics

Clutch Size: 1-5 eggs

Incubation Period: 10-13 days

Nestling Period: 7-13 days

Egg Description: White or creamy with blotches of brownish or reddish; some are so speckled that they are nearly brown all over.

Condition at Hatching: Helpless, with closed eyes, and naked except for downy tufts of feathers on the head, neck, and back.

Nest Placement: The male shows the female potential nest sites during the early stages of courtship. She tests out many sites by settling into them and moving around, and finally chooses one. The nest is usually supported by the main trunk of a tree or shrub and a few other vertical stems, and well camouflaged by foliage. Common nest trees include maple, birch, ash, hawthorn, alder, eastern white cedar, cherry, balsam poplar, and willow.

Nest Description: The female builds the nest by herself in about 3-7 days. The nest is a tightly woven cup of small fibers, such as birch bark strips, grasses, milkweed seed hairs, animal hairs, feathers, rootlets, leaves, lichens, twigs, mosses, pine needles, and wasp nest paper. The nest measures 2–3 inches across and 2–3 inches high on the outside, with an inner cup about 2 inches across and 1.5 inches deep.

Bird Information

Habitat: American Redstarts breed in moist, deciduous, second-growth woodlands with abundant shrubs, across much of the eastern and northern United States and southern Canada. Its habitat is often situated near water, and includes alder and willow thickets, thickets in treefall gaps within old-growth forest, fencerows, orchards, and mixed deciduous-coniferous woodlands. Redstarts favor interior woodland over edges, and prefer large tracts of habitat measuring at least 1,000 acres in area. In the western part of their range they use riverside woods, thickets, and coniferous forest. They spend the winter in low- to mid-elevation forest habitats in southern Florida and California, as well as in southern and western Mexico, Central America, northern South America, and the Caribbean. Their wintering habitat includes mangroves, shade coffee plantations, citrus plantations, wet forest, scrub thickets, and even isolated trees in residential urban areas.

Food: American Redstarts feed mostly on insects, including leafhoppers, planthoppers, flies, moths and their larvae, wasps, and beetles. In late summer they also eat some small berries and fruits, such as barberry, serviceberry, and magnolia. They forage between the ground and near the top of the canopy, taking most of their prey from twigs, branches, and leaves. They fan their tails and droop their wings, showcasing the orange-and-black or yellow-and-gray “flash patterns” of their plumage, presumably to startle prey and flush it from vegetation. American Redstarts take more flying prey than most other warbler species, and they compete with other flycatching species (such as Least Flycatcher) for the same prey. Individuals usually forage alone but may stay near their mates, and they sometimes join mixed-species flock in the nonbreeding season.

Behavior: Males defend their territory boundaries with songs, posturing, and aerial displays, including one display in which they fly in circles near each other. Female sometimes defend the territory against other females. Two birds may strike at each other or even grapple with their bills and feet, though they rarely hurt each other. Both the male and the female bring food for the nestlings. Though normally monogamous, the male may start singing to attract another mate once his first mate has finished laying eggs. He spends more effort providing food for his first nest than for his second. Once the chicks leave the nest, the parents divide up the chicks for feeding duty: the female feeds certain chicks while the male feeds the others. Foraging adults may be preyed on by raptors such as Sharp-shinned Hawks, while eggs and nestlings are vulnerable to climbing mammals, snakes, and birds such as Blue Jays, Common Ravens, Gray Jays, Common Grackles, Northern Saw-whet Owls, Cooper’s Hawks, and Red-bellied Woodpeckers.

Conservation: American Redstarts are common but numbers indicate a small decline across

their range (with up to a 47% decline in the U.S.) between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 39 million individuals, with 81% breeding in Canada, 19% spending some part of the year in the U.S., and 13% wintering in Mexico. They rate a 10 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Adult male American Redstarts are mostly black with bright orange patches on the sides, wings, and tail. The belly is white. Females and immature males replace the orange with yellow or yellow-orange. They have gray head and underparts, with olive back and wings and dark-gray tail.

Fun Facts

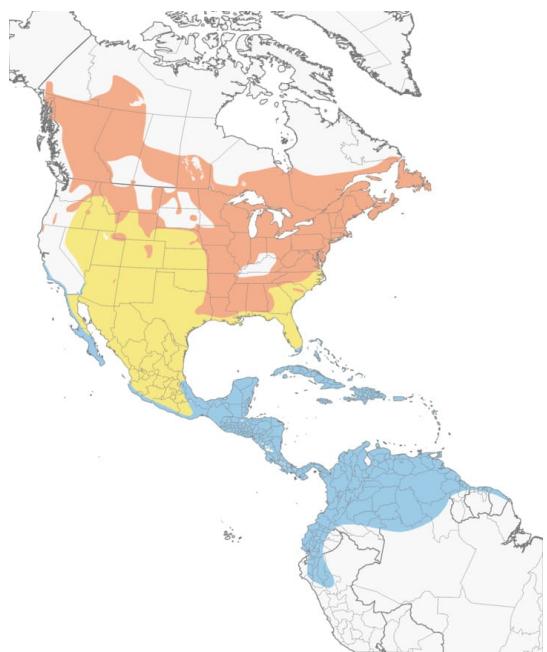
-> Like the Painted Redstart and other “redstarts” of the Neotropics, the American Redstart flashes the bright patches in its tail and wings. This seems to startle insect prey and give the birds an opportunity to catch them. Though these birds share a common name, they are not closely related to each other. In fact, there are other unrelated birds around the world—such as the fantails of Australia and southeastern Asia, and other redstarts of Europe—that share the same foraging tricks.

-> Young male American Redstarts have gray-and-yellow plumage, like females, until their second fall. Yearling males sing vigorously in the attempt to hold territories and attract mates. Some succeed, but most do not breed successfully until the following year when they develop black-and-orange breeding plumage.

-> The male American Redstart sometimes has two mates at the same time. While many other polygamous bird species involve two females nesting in the same territory, the redstart holds two separate territories that can be separated by a quarter-mile. The male begins attracting a second female after the first has completed her clutch and is incubating the eggs.

-> The oldest American Redstart was over 10 years old, when he was recaptured and rereleased during a banding operation in Ontario.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

A medium-sized warbler with a relatively wide, flat bill and a fairly long, expressive tail. Adult males are mostly black with bright orange patches on the sides, wings, and tail.



Female

A medium-sized warbler with a relatively wide, flat bill and fairly long, expressive tail. Females have yellow patches on the sides, wings, and tail, a gray head, and an olive back.



Immature male

Immature males have yellow patches on the sides, wings, and tail with a variable amount of black on the face and chest.



Female

Tends to forage at middle levels in the forest where it grabs insects midair or plucks them from vegetation.



Female

Females have a gray head and yellow patches on the sides, wings, and tail.



Female

Often fans tail to expose yellow or orange tail feathers.



Adult male

Breeds in open wooded habitats, particularly those dominated by deciduous trees.



Immature male

Immature males have yellow patches on the sides, wings, and tail and a variable amount of black on the face and chest.

Ovenbird

Bird Characteristics

Scientific Name: *Seiurus aurocapilla*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-5.5 in (11-14 cm)

Weight: 0.6-1.0 oz (16-28 g)

Wingspan: 7.5-10.2 in (19-26 cm)

Basic Description: The Ovenbird's rapid-fire

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-0.9 in (1.9-2.2 cm)

Egg Width: 0.6-0.6 in (1.4-1.6 cm)

Incubation Period: 11-14 days

Nestling Period: 7-10 days

Egg Description: White with reddish-brown spots and speckles.

Condition at Hatching: Helpless, covered in dark gray to pale brown down, with eyes closed but mouths opening in response to noise.

Nest Placement: The female Ovenbird builds a nest in thick leaf litter on the open forest floor at least 60 or 70 feet from the forest edge. She chooses a spot under or near a small break in the canopy, often near where a tree has fallen or near regrowth from some other disturbance

Nest Description: The female clears a circular spot in forest floor litter and over the next 5 days weaves a domed nest of dead leaves, grasses, stems, bark, and hair. The nest's squat oval

side entrance is hidden from above and generally faces downhill if the nest is built on a slope. The inner cup is just 3 inches across and 2 inches deep, lined with deer or horse hair. The outer dome, camouflaged with leaves and small sticks, may be up to 9 inches across and 5 inches high. Its resemblance to an outdoor bread oven with a side opening gives the Ovenbird its name.

Bird Information

Habitat: Ovenbirds breed in large, mature broadleaf or mixed forests from the Mid-Atlantic states to northeastern British Columbia. They set up summer territories where the leaf canopy overhead inhibits underbrush and provides deep leaf litter hosting plenty of invertebrates. Extensive, uninterrupted forests with relatively closed canopies 50 to 70 feet above the ground seem ideal. Even fairly large forest patches of 250 to 2,000 acres may not be able to support Ovenbird populations unless larger forests are close by. Ovenbirds are less picky about their winter habitats. They avoid open fields and cultivated areas, but where mature forests are unavailable, they can live and feed among shade coffee trees or mangroves, on dry scrubland or regenerating agricultural land, and in moist upland or dry lowland forests. They still favor leaf litter for hunting invertebrates, but they can forage in grasses or on rocks or mud near water.

Food: Ovenbirds eat mainly forest insects and other invertebrates: a range of adult beetles and larvae, ants, caterpillars, flies, and other insects. Most of these are hunted in leaf litter, some on leaves, and a few on bark or in the air. Parents feed ground beetles and larvae to nestlings. Ovenbirds can alter their feeding habits to forage in trees and shrubs in response to a novel food source, like an outbreak of spruce budworms. In winter habitats, Ovenbirds' food flexibility matches their habitat flexibility. They may add seeds to their diets and specialize in locally abundant prey like ants. They may also hunt insects and grubs in short grasslands or on rocks and mud near water.

Behavior: Male Ovenbirds establish late-spring territories in vigorous, prolonged encounters with other males. They vocalize loudly and chase competitors, but rarely make physical contact. Males defend established territories primarily by singing from perches in the low canopy. A pair bond between a male and female starts on the breeding ground and ends when the young fledge. Only the female sits on the eggs and broods the chicks, but both male and female feed them. They walk through forest floor leaf litter, gleaning and probing for invertebrate food. When predators approach a territory, both males and females may utter alarm calls and give chase. If a predator approaches a female on the nest, she sits tight until the last moment, then tries to lead the predator away by feigning injury. By day 8, the chicks leave the nest one at a time, with several hours between the first and last. As they run and hop away from the nest, the parents split the brood. The male keeps his young within the territory, and the female leads hers to an adjacent area. Females feeding young in neighboring territories are not harassed. The chicks need several more days to begin to fly, and don't become independent until around day 30. Immature Ovenbirds spend time feeding and "playfully chasing" other immature birds, who may or may not be from the same brood. They remain on the breeding grounds until after adult males and females have started their separate

migrations in the fall, then they too set off. Ovenbirds seem largely solitary on the winter grounds.

Conservation: Ovenbirds are numerous and their populations were stable or slightly increased overall between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 22 million with 66% spending some part of the year in the U.S., 48% in Mexico, and 66% breeding in Canada. The species rates a 9 out of 20 on the Continental Concern Score. Ovenbird is not on the

Color Pattern: Ovenbirds are olive-green above and spotted below, with bold black-and-orange crown stripes. A white eyering gives it a somewhat surprised expression. Like several other terrestrial, or near-terrestrial, warblers, Ovenbirds have pink legs.

Fun Facts

-> On its breeding ground, the Ovenbird divides up the forest environment with the other warblers of the forest floor. The Ovenbird uses the uplands and moderately sloped areas, the Worm-eating Warbler uses the steep slopes, and the Louisiana Waterthrush and the Kentucky Warbler use the low-lying areas.

-> The Ovenbird gets its name from its covered nest. The dome and side entrance make it resemble a Dutch oven.

-> The Ovenbird female weaves the cup, side entrance, and roof of her domed nest from the inside as a single, integrated piece. Then she drops leaves and twigs on top to hide it. If the chicks inadvertently dismantle the dome as they grow, the female ignores the damage.

-> The Ovenbird's very loud song has attracted attention for years. Robert Frost's 1916 poem "The Oven Bird" begins, "There is a singer everyone has heard, / Loud, a mid-summer and a mid-wood bird, / Who makes the solid tree trunks sound again."

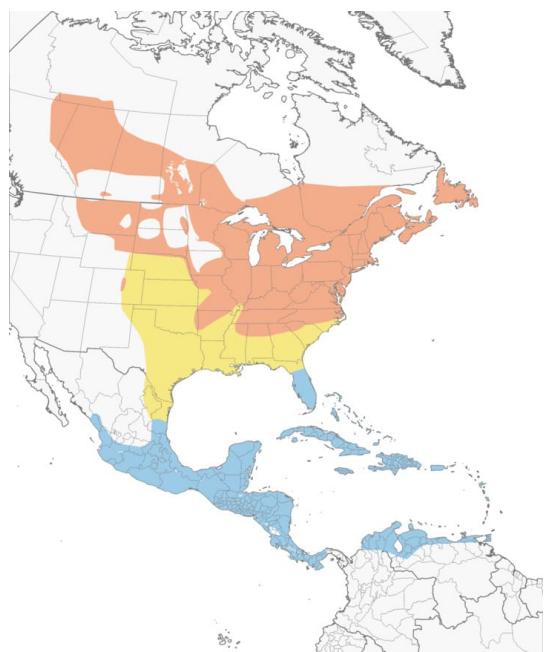
-> The Ovenbird chants 4 to 6 of its song's

-> Neighboring male Ovenbirds sing together. One male starts singing, and the second will join in immediately after. They pause, and then sing one after the other again, for up to 40 songs. The second joins in so quickly that they may sound from a distance as if only one bird is singing. Ovenbirds rarely overlap the song of their neighbors.

-> The Ovenbird's abundance, wide distribution, and relative ease of observation have made it a model songbird in scientific studies for nearly a century. Ovenbird studies have helped scientists understand the effects of logging and habitat fragmentation on migrating songbirds.

-> The oldest known Ovenbird was at least 11 years old when it was recaptured and released in Connecticut, the same state where it had been banded as a young bird.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Rather chunky for a warbler with bold black spots on the chest, a white eyering, and a black and orange striped crown.



Adult

Note bold black spots on the chest and black and orange striped crown, although crown color can be difficult to see.



Adult

Chunky, wide-eyed warbler with bold spotting on the chest, olive-brown upperparts and striped crown.



Adult

Territorial males are very vocal, singing a loud "teacher, teacher, teacher" from tree branches, occasionally quite high up in the canopy.



Adult

Breeds in closed-canopy forests, particularly deciduous and mixed deciduous-evergreen woods. Forages on the ground, often walking with a herky-jerky, wandering stroll.

Kentucky Warbler

Bird Characteristics

Scientific Name: *Geothlypis formosa*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Declining

Length: 5.1 in (13 cm)

Weight: 0.5-0.5 oz (13-14 g)

Wingspan: 7.9-8.7 in (20-22 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.8 in (1.77-2.05 cm)

Egg Width: 0.6-0.6 in (1.42-1.55 cm)

Incubation Period: 11-13 days

Nestling Period: 8-9 days

Egg Description: Eggs gray to cream with brown blotches and/or dots concentrated at the large end, sometimes wreathed.

Condition at Hatching: Eyes closed and mostly naked with sparse down.

Bird Information

Habitat: In breeding season, the Kentucky Warbler uses lowland hardwood forests, often near streams, with dense understory. Mayapple, white avens, spicebush, and many other understory plants are associated with Kentucky Warbler nesting. They need large tracts of

forest habitat (over 1,200 acres) for nesting, although gaps such as treefall gaps, trails, or small roads are important for creating a patchwork of shaded and well-lit areas. They inhabit similar gaps in their wintering range, such as tropical lowland rainforest and shade-coffee or cacao plantations.

Food: Kentucky Warblers eat insects and their larvae, spiders, bugs, ants, beetles, grasshoppers, locusts, plant-lice, caterpillars, and fruit. When foraging, they spend most of their time hopping on the forest floor, turning over leaf litter, scratching with feet, and probing with the bill to find prey. They also feed in the understory and lower parts of trees, gleaning insects and occasionally grabbing insects from the undersides of leaves. On their tropical wintering grounds in primary and secondary lowland forests, Kentucky Warblers frequently follow army-ant swarms, capturing prey displaced by the ants.

Behavior: Males arrive on breeding grounds before females to sing and establish territory, which they defend from rivals with threat displays (raising the crown, chipping) and chases. Both sexes defend territories and forage mostly within their own territory. During pair-bonding, as many as 5 males and females chase each other around the territory, an activity that attracts others. Pairs are socially monogamous, even though half of nests usually contain a nestling from an “extra-pair fertilization.” Males guard females throughout incubation. After the young fledge, the parents often go their separate ways and split up caring for fledglings. Wintering birds in the tropics maintain and defend territories as well.

Conservation:

Color Pattern: Males are olive above and yellow below, with a blackish crown and face broken by a yellow eyebrow that wraps around behind the eye. Females and immatures are similar, but the head pattern is less striking.

Fun Facts

- > The pioneering Scottish naturalist Alexander Wilson was in Kentucky when he first collected this species, in 1811—and the name stuck.
- > Unlike most songbirds, a male Kentucky Warbler appears to sing only one song type. He will sing the same song throughout his life.
- > The oldest recorded Kentucky Warbler was a male and at least 8 years old when he was recaptured and re-released during banding operations in Alabama.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Medium-sized, long-legged warbler. Entirely yellow below and olive-green above. Males have black sideburns and crown.



Female

Long-legged warbler of the understory. Entirely yellow below and olive-green above. Females also have dark sideburns, but they are often grayer and the cap is often smaller and mottled black or gray.



Female/immature

Medium-sized warbler of the understory. Yellow below with a black crown

and sideburns.



Adult male

Males and females are entirely yellow below.



Female/immature

Breeds in bottomland hardwood forests and forests near streams with dense understory. From a distance, note yellow underparts, long legs, and black sideburns.

Common Yellowthroat

Bird Characteristics

Scientific Name: *Geothlypis trichas*

Order: Passeriformes

Family Name: Parulidae

Conservation Status: Low Concern

Length: 4.3-5.1 in (11-13 cm)

Weight: 0.3-0.3 oz (9-10 g)

Wingspan: 5.9-7.5 in (15-19 cm)

Basic Description: A broad black mask lends a touch of highwayman's mystique to the male Common Yellowthroat. Look for these furtive, yellow-and-olive warblers skulking through tangled vegetation, often at the edges of marshes and wetlands. Females lack the mask and are much browner, though they usually show a hint of warm yellow at the throat. Yellowthroats are vocal birds, and both their

Nesting Characteristics

Clutch Size: 1-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.5-2 cm)

Egg Width: 0.5-0.6 in (1.2-1.5 cm)

Incubation Period: 12 days

Nestling Period: 12 days

Egg Description: White with markings of gray, lilac, reddish-brown, or black.

Condition at Hatching: Helpless, with dark orange skin and wisps of grayish down.

Nest Placement: The female selects a nest site, which is usually on or near the ground and supported by sedges, grasses, reeds, cattails, briars, skunk cabbage, or other low plants. Nests in marshy areas are usually higher off the ground, where they are safer from flooding.

On rare occasions the female may build in vegetation growing out of the water.

Nest Description: The female builds her well-concealed nest in 4-5 days (sometimes 2-3 days later in the season). She starts by building a platform of grasses and leaves and gradually weaves a loose, bulky outer cup of grasses and sedges. She adds smaller materials toward the center, sometimes in distinct layers. The outside of the nest averages 3.5 inches wide and 3 inches deep, while the inner cup averages 2.2 inches wide and 1.8 inches deep. Sometimes a Common Yellowthroat nest has a roof, like the nest of an Ovenbird.

Bird Information

Habitat: Common Yellowthroats live in thick, tangled vegetation in a wide range of habitats—from wetlands to prairies to pine forests—across North America. Their breeding range stretches across most of the United States, the Canadian provinces, and western Mexico. Yellowthroats are most common in wet areas, which tend to have dense vegetation low to the ground, ideal for skulking and building hidden nests. But they are also found in dry upland pine forests, palmetto thickets, drainage ditches, hedgerows, orchards, fields, burned-over oak forests, shrub-covered hillsides, river edges, and disturbed sites. They winter in similar habitats with dense vegetation in the southern United States, Mexico, Central America, and the Caribbean.

Food: Common Yellowthroats forage on or near the ground, eating insects and spiders from leaves, bark, branches, flowers, or fruit in low vegetation. Their diet includes bugs, flies, beetles, ants, termites, bees, wasps, grasshoppers, dragonflies, damselflies, moths, butterflies, caterpillars, and other larvae. Though they mostly glean their food while perched, they may sally out from a perch to catch prey. Like many birds, Common Yellowthroats also eat grit, which possibly helps them digest food or adds minerals to their diet.

Behavior: Males arrive first on breeding grounds in the spring and begin defending territories, fighting more intensely when the females arrive. The black mask is an important signal in male fighting: when researchers added a black paper mask to a stuffed female, males started attacking the stuffed bird, as if it were a male rival. Eventually, a male pairs up with a female and begins following her closely until she signals that she's ready to mate, by fluttering her wings and giving a fast series of chips. This display also attracts other males, which may mate with the female behind her mate's back. The females themselves may defend their territories against other females. Once the nestlings hatch and the parents are busy feeding the young brood, they relax their territorial defense. Nest predators include snakes, mice, chipmunks, raccoons, skunks, and possums, while adult yellowthroats are sometimes prey for Loggerhead Shrikes, Northern Harriers, Merlin, and American Kestrels. On wintering grounds, Common Yellowthroats may forage in mixed-species flocks but are usually solitary.

Conservation: Common Yellowthroats are numerous but they declining by almost 1% per year between 1966 and 2014, resulting in a cumulative decline of about 38%, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 87 million with 54% spending some part of the year in the U.S., 58% in Mexico,

and 41% breeding in Canada. They rate a 9 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Adult males are bright yellow below, with a sharp black face mask and olive upperparts. A thin whitish line sets off the black mask from the head and neck. Immature males show traces of the full mask of adult males. Females are a plain olive brown, usually with yellow brightening the throat and under the tail. They lack the black mask.

Fun Facts

-> The Common Yellowthroat was one of the first bird species to be catalogued from the New World, when a specimen from Maryland was described by Linnaeus in 1766.

-> Adult Common Yellowthroats sometimes fall prey to carnivorous birds such as Merlin and Loggerhead Shrikes. Occasionally they have more unexpected predators: one migrating yellowthroat was eaten by a Chuck-will's-widow, while another was found in the stomach of a largemouth bass.

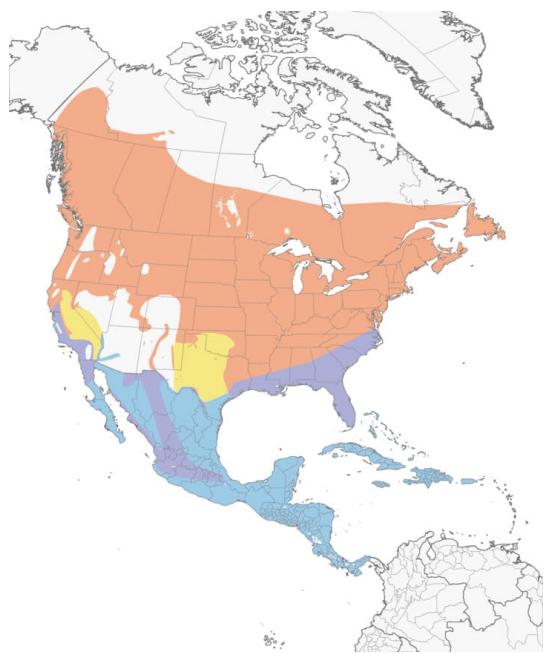
-> Each male normally has only one mate in his territory during a breeding season. However, a female's mating calls often attract other males, and she may mate with them behind her mate's back.

-> One subspecies of Common Yellowthroat is a year-round resident in the Rio Grande river delta in Texas. These yellowthroats are not only territorial among themselves, but they also keep migrant yellowthroats of other races completely out of their habitat.

-> Brown-headed Cowbirds often lay their eggs in the nests of Common Yellowthroats (and many other songbird species). This is called brood parasitism, and it's detrimental to the yellowthroats, so they've developed a few defenses. They desert a nest if it contains a cowbird egg, or if their own eggs have been removed or damaged by a visiting cowbird. They may build a second or even a third nest on top of a parasitized nest.

-> The oldest Common Yellowthroat on record was at least 11 years, 6 months old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small songbird with a round belly and long tail. Males have a black mask and a yellow throat and undertail coverts.



Female

Females are brownish above with a yellow throat and breast. The brightness of yellow varies geographically.



Immature male

The black mask on immature males is faint and patchy.



Immature female

Immature females are pale brownish overall with yellow only on the undertail coverts.



Adult male (chapalensis)

Resident males around Lake Chapala, Jalisco, Mexico have a larger black mask that is bordered by yellow instead of white like Common Yellowthroats farther north.



Adult male

Small songbird with a round belly and long tail. Males have a black mask bordered by white and a yellow throat and undertail coverts.



Female

Females are brownish above with a yellow throat and undertail coverts, the intensity of which varies geographically.



Adult male

Found in open areas with thick, low vegetation, ranging from marshes to grasslands to open pine forests.



Female

Spends much of their time skulking low to the ground in dense thickets and fields where they can be difficult to see.

Spotted Towhee

Bird Characteristics

Scientific Name: *Pipilo maculatus*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Low Concern

Length: 6.7-8.3 in (17-21 cm)

Weight: 1.2-1.7 oz (33-49 g)

Wingspan: 11.0 in (28 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-6 eggs

Number of Broods: 1-3 broods

Egg Length: 0.8-1.0 in (2-2.6 cm)

Egg Width: 0.7-0.8 in (1.7-1.9 cm)

Incubation Period: 12-13 days

Nestling Period: 10-12 days

Egg Description: White, gray, green, or pinkish, spotted with reddish brown, purple or gray.

Condition at Hatching: Naked except for sparse tufts of grayish down, eyes closed, clumsy.

Nest Placement: Spotted Towhees place their nests either on the ground or near it (though occasionally up to 12 feet high). They often choose fairly exposed areas over sites deep inside a thicket, but within these areas they find a clump of grass, a log, or the base of a shrub to conceal their nests against.

Nest Description: The female builds the nest beginning with a framework of dry leaves, stems, and bark strips. She lines this with an inner cup of fine, dry materials such as grasses, rootlets,

pine needles, and hair. The finished nest is about 4.5 inches across, with an inner cup 2.5-4 inches across and about 2.5 inches deep. Ground nests are built into depressions so that the nest rim is at the soil surface or only slightly above it.

Bird Information

Habitat: Spotted Towhees are birds of dry thickets, brushy tangles, forest edges, old fields, shrubby backyards, chaparral, coulees, and canyon bottoms, places with dense shrub cover and plenty of leaf litter for the towhees to scratch around in.

Food: In the breeding season, Spotted Towhees eat mainly insects including ground beetles, weevils, ladybugs, darkling beetles, click beetles, wood-boring beetles, crickets, grasshoppers, caterpillars, moths, bees, and wasps. Other leaf-litter arthropods such as millipedes, sowbugs, and spiders are taken as well. They also eat acorns, berries, and seeds including buckwheat, thistle, raspberry, blackberry, poison oak, sumac, nightshade, chickweed, and crops such as oats, wheat, corn, and cherries. In fall and winter, these plant foods make up the majority of their diet.

Behavior: Spotted Towhees rummage in the leaf litter or creep through thick shrubs. Towhees tend to hop wherever they go, moving deliberately and giving themselves plenty of time to spot food items. They scratch at leaves with a characteristic two-footed backward hop, then pounce on anything they've uncovered. During conflicts between two towhees, you may see one bird pick up a piece of twig, bark, or leaf and carry it around. This seems to be an indication of submission. Disturbed or alarm-calling towhees flick their wings while perched, sometimes flashing the white corners in the tail.

Conservation: Spotted Towhees are widespread and abundant and their numbers remained relatively stable between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 33 million with 79% spending some part of the year in the U.S., 23% in Canada, and 20% in Mexico. They rate an 8 out of 20 on the Continental Concern Score and are not on the

Color Pattern: None

Fun Facts

-> Watch a Spotted Towhee feeding on the ground; you'll probably observe its two-footed, backwards-scratching hop. This "double-scratching" is used by a number of towhee and sparrow species to uncover the seeds and small invertebrates they feed on. One Spotted Towhee with an unusable, injured foot was observed hopping and scratching with one foot.

-> The Spotted Towhee and the very similar Eastern Towhee used to be considered the same species, the Rufous-sided Towhee. The two forms still occur together in the Great Plains, where they sometimes interbreed. This is a common evolutionary pattern in North American

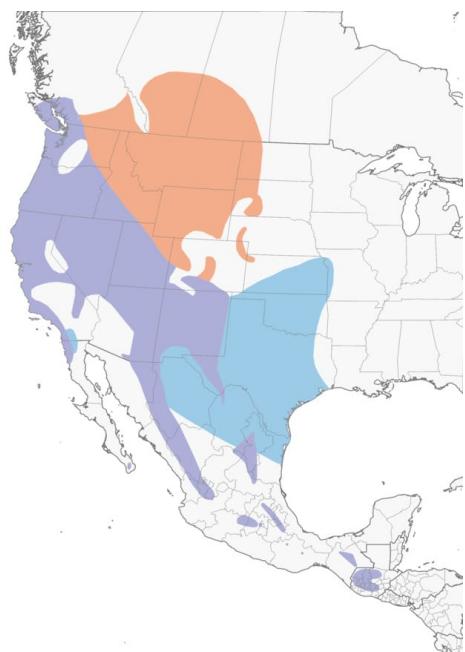
birds – a holdover from when the great ice sheets split the continent down the middle, isolating birds into eastern and western populations that eventually became new species.

-> Early in the breeding season, male Spotted Towhees spend their mornings singing their hearts out, trying to attract a mate. Male towhees have been recorded spending 70 percent to 90 percent of their mornings singing. Almost as soon as they attract a mate, their attention shifts to other things, and they spend only about 5 percent of their time singing.

-> Spotted Towhees live in drier habitats than Eastern Towhees. Some scientists have suggested that the bold white spots on Spotted Towhees' backs help them blend in to the sun-dappled undergrowth.

-> The oldest recorded Spotted Towhee was a male, and at least 11 years old when he was recaptured and released during banding operations in California.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Large sparrow with a thick bill and a long tail. Males have a black head, throat, and upperparts, with a white belly and rufous sides. The back and wings are spotted white.



Female/immature

Large, long-tailed sparrow. Females are brown on the head, throat, and upperparts, with white spots on the wings and back.



Adult (Olive-backed)

Some populations in Mexico have olive-green on the back.



Juvenile

Large sparrow with thick bill. Juveniles are heavily streaked and brownish.



Adult male

Large, long-tailed sparrow of brushy areas, often found on or near the ground. Note prominent white flashes in the tail in flight.



Female/immature

None



Adult male

Lives in dense shrubby habitats. Scratches in leaf litter to forage, but males often perch in the open to call or sing.

Black-chinned Sparrow

Bird Characteristics

Scientific Name: *Spizella atrogularis*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Declining

Length: 5.8 in (14.6 cm)

Weight: 0.3-0.5 oz (9-14.8 g)

Wingspan: 7.7 in (19.5 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 0.6-0.8 in (1.5-2 cm)

Egg Width: 0.5-0.6 in (1.2-1.5 cm)

Incubation Period: 12-13 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Black-chinned Sparrows place their nests about 2 feet above the ground near the center of a dense shrub.

Nest Description: Females and possibly males collect grasses and stems that they weave into a loose cup-shaped nest. They line the nest with fine grasses and softer plant material.

Bird Information

Habitat: Black-chinned Sparrows are locally common in dry brushlands and chaparral from near sea level to 8,000 feet. They associate with sagebrush, rabbitbrush, ceanothus, and other chaparral species. They typically breed on rocky hillsides and winter downslope in desert scrub.

Food: Black-chinned Sparrows eat insects during the breeding season. They pick insects from trees and shrubs as well as from the ground. In winter they take seeds from grasses and other flowering plants often while perched on a nearby shrub or from the ground.

Behavior: Black-chinned Sparrows are rather secretive sparrows of rugged terrain. They hop between shrubs and generally don't forage out in the open, at least not for long. During the breeding season though, males sing from exposed perches to defend their territory. Pairs stay together for a single breeding season and tend to be rather solitary. In winter, Black-chinned Sparrows sometimes forage in small single-species groups.

Conservation: Black-chinned Sparrows are locally common, but their populations declined by 62% between 1970 and 2014, according to

Color Pattern: None

Fun Facts

-> Most male and female sparrows look alike, but not Black-chinned Sparrows; the male sports a black chin patch that is absent on the female.

-> Jean Louis Cabanis, a German ornithologist, discovered the Black-chinned Sparrow in Mexico in 1851.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

A slender sparrow with a pink conical bill. Breeding males are gray with brown wings and a black throat patch.



Female/nonbreeding male

None



Breeding male

Males often sing from conspicuous perches during the breeding season.



Female/nonbreeding male

A long-tailed sparrow with a pink conical bill. Nonbreeding birds lack the breeding male's black throat.



Juvenile

None



Female/nonbreeding male

A gray sparrow with a pink bill, brown wings, and brown streaks down its back.



Breeding male

None



Female/nonbreeding male

Females look like males, but lack the black chin and throat patch.



Habitat

Found in dry brushlands and chaparral along rugged hillsides.

Lark Sparrow

Bird Characteristics

Scientific Name: *Chondestes grammacus*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Low Concern

Length: 5.9-6.7 in (15-17 cm)

Weight: 0.8-1.2 oz (24-33 g)

Wingspan: 11.0 in (28 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 0.7-0.9 in (1.8-2.3 cm)

Egg Width: 0.6-0.7 in (1.5-1.7 cm)

Incubation Period: 11-12 days

Nestling Period: 11-12 days

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Female Lark Sparrows pick a spot either on the ground or in a tree or shrub. Ground nests tend to be placed in a shallow depression on a spot where the land rises slightly. Tree and shrub nests tend to be around 4.5 feet off the ground. Sometimes they reuse old nests from other species, including nests of Scissor-tailed Flycatchers, Curve-billed Thrashers, Northern Mockingbirds, and Western Kingbirds.

Nest Description: Females build a thick-walled cup of grass, twigs, or weedy stems that they

line with finer grass or horsehair.

Bird Information

Habitat: Lark Sparrows breed in open grassy habitats with scattered trees and shrubs including orchards, fallow fields, open woodlands, mesquite grasslands, savanna, sagebrush steppe, and grasslands. During migration and winter they use similar habitats, but can also be found in pine-oak forest, thorn scrub, and agricultural areas with scattered trees and hedgerows.

Food: Lark Sparrows eat insects and seeds, consuming more insects in the summer months and more seeds in the winter months. They pick insects and seeds from the ground or from leaves and twigs.

Behavior: Lark Sparrows spend much of their time on the ground but also perch in trees and shrubs and on fence posts and wires. Males and females form monogamous bonds for a single breeding season. When courting, the male hops in a line and then crouches on the ground holding his tail up at an angle. He then spreads his tail feathers, showing off the white tips, and struts with his wings drooping nearly to the ground, almost like a turkey. When the female is receptive, the male gives her a small twig just before copulation. Males don't tolerate other males in their territory and quickly threaten them by raising the head, a display that frequently leads to both birds flying at each other and grappling in midair. Female intruders, on the other hand, are met with courtship displays. Once incubation is nearly over, Lark Sparrows become more tolerant and often forage in groups. In the winter, they form feeding flocks and frequently mix with White-crowned Sparrows and Vesper Sparrows.

Conservation: Lark Sparrows are common, but their populations declined by 32% between 1970 and 2014, according to

Color Pattern: None

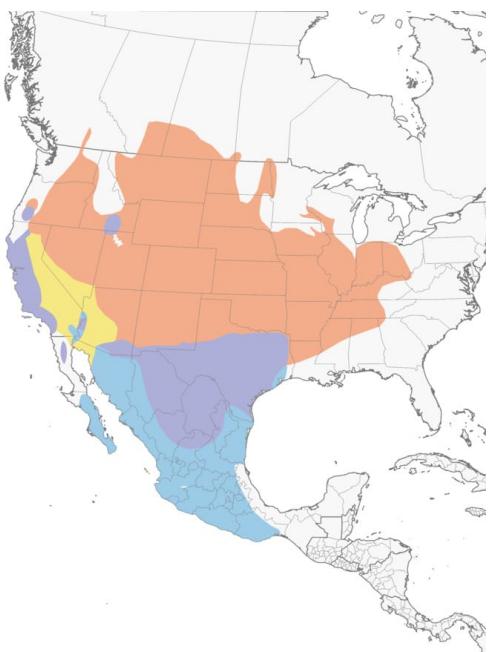
Fun Facts

-> Courting male Lark Sparrows put on a dance that lasts for up to 5 minutes. The dance starts with the male hopping, then spreading his tail and drooping his wings so that they nearly touch the ground, almost like a turkey strutting.

-> Female Lark Sparrows sometimes use old mockingbird or thrasher nests instead of building their own nest.

-> The oldest recorded Lark Sparrow was a male and at least 9 years, 11 months old.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult

Large, pale sparrow with a thick bill. Adults have very striking head pattern with a chestnut crown and cheek patch, a pale stripe over the eye, and a strong black malar or mustache stripe. Note the black spot in center of the white breast.



Adult

The long, rounded tail has white corners that flash in flight. The chestnut crown and cheek with a pale eyebrow and a dark mustache stripe are distinctive.



Adult
None



Adult and juvenile

Adults have a colorful head pattern and black streaks on the back.
Juveniles have brown-on-white head pattern and streaks on the breast.



Juvenile
None



Adult
None



Immature

Large sparrow with long tail and rounded tail. Immatures have similar face pattern to adults but lack the chestnut coloration to the crown and cheek.



Adult

None



Habitat

Occurs in prairie, grassland, agricultural areas, desert scrub, sagebrush, and other open areas.

Harris's Sparrow

Bird Characteristics

Scientific Name: *Zonotrichia querula*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Declining

Length: 6.7-7.9 in (17-20 cm)

Weight: 0.9-1.7 oz (26-49 g)

Wingspan: 10.6 in (27 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-5 eggs

Egg Length: 0.7-1.0 in (1.8-2.5 cm)

Egg Width: 0.6-0.7 in (1.5-1.8 cm)

Incubation Period: 12-14 days

Nestling Period: 8-10 days

Egg Description: Pale green with irregular spots and blotches.

Condition at Hatching: Helpless and naked with sparse gray down.

Nest Placement: The female builds a nest on the ground usually below a short alder, spruce, dwarf birch, or dwarf Labrador tea. She tends to build the nest on the side of the shrub that is out of the prevailing winds.

Nest Description: Over a period of 2–3 days, the female builds a cup-shaped nest of mosses, small twigs, and lichens. She lines the nest with dried sedges and grasses. The inside of the nest is about 2.5 inches in diameter and 2 inches deep.

Bird Information

Habitat: Harris's Sparrows breed in semiforested tundra areas in northern Canada. Here the open tundra is broken up by patches of white pine, black spruce, larch, alder, and willow mixed with dwarf shrubs, sedges, and dense patches of lichens. In the winter, they use hedgerows, agricultural fields, shrubby pastures, backyards, and shrubby areas near streams. They generally do not use dense woods or dry shortgrass prairies.

Food: Seeds, fruits, plant material, and insects are all part of the Harris's Sparrow diet. During the nonbreeding season they eat mainly seeds from ragweed, knotweed, and goosefoot, but they also visit bird feeders. Early in the breeding season when insects are less abundant they eat a lot of crowberries (a relative of the blueberry), bearberries, and other berries that are still on shrubs from the previous growing season. Once the tundra warms up they eat flies, beetles, butterflies, and other insects. They also eat plant buds, sedges, grasses, and young spruce needles.

Behavior: Like other sparrows, Harris's Sparrows hop along the ground scratching at the surface or jump to pick food off a low branch. Although they spend a lot of time foraging on the ground, they hop into small shrubs and trees to rest or to sing. If they feel threatened they also tend to fly into a tree or shrub rather than run along the ground to seek cover. Males and females arrive on the breeding grounds at about the same time and start forming pairs within a week. Males sing from exposed perches in trees and shrubs to establish territory boundaries. Males and females form monogamous bonds during the breeding season, but they find new mates each year. Males tend to return to the same territory year after year especially if they succeeded in raising young. Though pairs are solitary during the breeding season, they forage with other Harris's Sparrows as well as other sparrow species on the wintering grounds. Foraging flocks may look friendly, but these flocks have a pecking order; older individuals with darker throat patches dominate the younger, lighter colored birds within the flock and may chase or push them out of the way.

Conservation: Harris's Sparrows breed in remote areas of northern Canada, outside the area covered by the North American Breeding Bird Survey. The best long-term data on their overall population comes from the Christmas Bird Count, conducted on their wintering grounds in the United States. This survey suggests that the species declined by 1.8% per year between 1965 and 2003, resulting in a cumulative decline of 49% during that time. Additional surveys conducted since then indicate a cumulative decline of 63% from 1970–2014. Partners in Flight estimates the global breeding population at 2 million, all of which breed in northern Canada and winter in the United States. Harris's Sparrow is on the

Color Pattern: Harris's Sparrows are streaky brown and black overall with a black bib, face, and crown. As they get older, the black areas around the face change from patchy black in juveniles to fully black in adults. Breeding adults have a gray cheek and nape while these areas are brown in nonbreeding birds. Juveniles and adults in all seasons have a pink bill, a white belly, and black streaks down the back.

Fun Facts

-> Just like siblings fighting over candy, older Harris's Sparrows often win the best access to food and roost sites. To determine why older sparrows dominated foraging flocks, researchers came up with a clever test. They noticed that older males have larger bibs, and dyed the feathers of young birds to create an artificially large bib. These younger birds with their new black bibs rose within the dominance hierarchy just like their older flock mates.

-> The Harris's Sparrow was named after Edward Harris, a friend of John J. Audubon, who collected a specimen in 1843. Audubon eagerly named the specimen thinking he was the first person to do so. Little did he know that Thomas Nuttall collected the bird first in 1834 and named it "Mourning Finch."

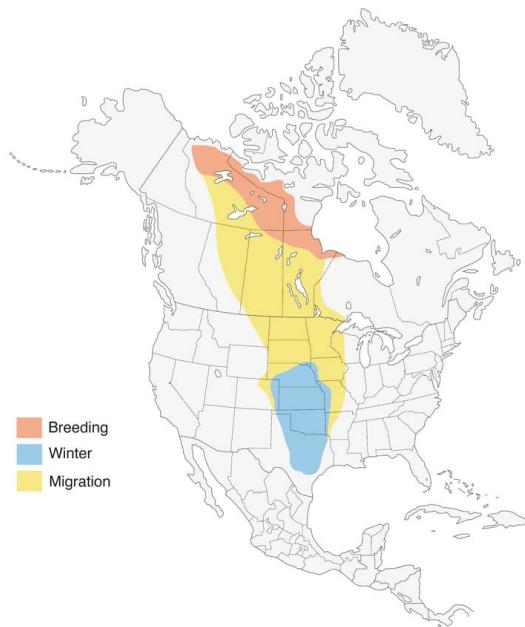
-> Harris's Sparrows return to breed in the tundra when it's still pretty cold up there and not many insects are out and about. With fewer insects to eat, they turn to crowberries. Although not as protein rich as an insect, berries can satisfy an egg-laying female's energy needs. Researchers calculated that she would need to eat around 675 fruits to meet her needs for the day.

-> The oldest recorded Harris's Sparrow was at least 11 years, 8 months old, when it was recaptured and rereleased during banding operations in Kansas in 1983. It had been banded in the same state n 1972.

-> The Harris's Sparrow is the only North American songbird that breeds in Canada and nowhere else in the world.

-> Because of its remote and restricted breeding grounds, the Harris's Sparrow was one of the last North American species to have its nest described. The first nest was found in 1931 in Churchill, Manitoba, by George M. Sutton, who went on to attend Cornell University and became an influential ornithologist and artist.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Large sparrow with long tail and pink bill. Gray head with extensive black face and bib. Streaky brown upperparts; white belly with streaked flanks.



Nonbreeding adult

Large, plump sparrow with pink bill. Nonbreeding adults are brown on the face and washed brown on the flanks. Black bib is variable in size and may contain white in winter.



Immature

Large sparrow with pink bill and long tail. Immatures have buffy-brown

heads and a white throat outlined by dark "mustache" stripes and the streaky beginnings of a bib.



Immature

Large sparrow with pink bill and long tail. Immature has brown head and white throat outlined by dark "mustache" stripes.



Breeding adult

None



Immature

None



Immature

Large, plump sparrow with pink bill, buffy brown head, and dark brown streaks on the flanks. Back is brown with blackish stripes.



Habitat

Breeds in patchy forest and tundra of northern Canada. Winters in grasslands and shrubby areas including agricultural fields, prairie, old fields, and thickets along streams.

White-crowned Sparrow

Bird Characteristics

Scientific Name: *Zonotrichia leucophrys*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Low Concern

Length: 5.9-6.3 in (15-16 cm)

Weight: 0.9-1.0 oz (25-28 g)

Wingspan: 8.3-9.4 in (21-24 cm)

Basic Description: White-crowned Sparrows appear each winter over much of North America to grace our gardens and favorite trails (they live in parts of the West year-round). The smart black-and-white head, pale beak, and crisp gray breast combine for a dashing look – and make it one of the surest sparrow identifications in North America. Watch for flocks of these sparrows scurrying through brushy borders and overgrown fields, or coax them into the open with backyard feeders. As spring approaches, listen out for this bird's thin, sweet whistle.

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1-3 broods

Egg Length: 0.8-0.9 in (1.9-2.4 cm)

Egg Width: 0.6-0.7 in (1.4-1.8 cm)

Incubation Period: 10-14 days

Nestling Period: 8-10 days

Egg Description: Greenish, greenish-blue, or bluish spotted with reddish brown.

Condition at Hatching: Born with only sparse down feathers, eyes closed, weighing about 0.1 ounce.

Nest Placement: White-crowned Sparrow nests are typically fairly low, placed 1.5 to 10 feet

high in shrubs, particularly for Pacific Coast birds. Across the arctic and subarctic portions of the species' range, White-crowned Sparrows nest on the tundra and have little choice but to put their nests on the ground, hidden among mats of mosses, lichens, and ground-hugging shrubs.

Nest Description: Females build nests out of twigs, coarse grasses, pine needles, moss, bark, and dead leaves. They line the nest cup with fine grasses and hairs. The finished product is about 5 inches across and 2 inches deep, and takes the female 2-9 days to complete.

Bird Information

Habitat: White-crowned Sparrows breed in open or shrubby habitats, including tundra, high alpine meadows, and forest edges. Patches of bare ground and grasses are important characteristics. During winter and on migration these birds frequent thickets, weedy fields, agricultural fields, roadsides, and backyards.

Food: White-crowned Sparrows eat mainly seeds of weeds and grasses, plus considerable numbers of caterpillars, wasps, beetles, and other insects during the summer. They also eat grains such as oats, wheat, barley, and corn, and fruit including elderberries and blackberries.

Behavior: White-crowned Sparrows hop across the ground and through low foliage in brushy habitats. You may see them "double-scratching," a move they share with towhees involving a quick hop backwards to turn over leaves followed by a forward hop and pounce. When these birds arrive on their breeding grounds males and females quickly pair, then wait until snow has melted enough to begin nest building. At the end of summer the pairs break up and winter separately, but when both members of the pair return the next summer, about two-thirds of the pairs re-form. Young birds move very little for the first few days after they leave the nest, and don't typically learn to fly until a week or so later. Siblings can stay with each other for more than two months after fledging.

Conservation: White-crowned Sparrows are numerous and widespread but populations declined by about 29% between 1966 and 2012, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 60 million with 80% spending some part of the year in the U.S., 59% in Canada, and 18% wintering in Mexico. They rate a 7 out of 20 on the Continental Concern Score and are not on the

Color Pattern: First impressions of White-crowned Sparrows tend to be of a plain, pale-gray bird; next your eye is drawn to the very bold black-and-white stripes on the head and the pale pink or yellow bill. Learn this bird's size and shape so you're ready to identify young birds that have brown, not black, markings on the head.

Fun Facts

-> A young male White-crowned Sparrow learns the basics of the song it will sing as an adult during the first two or three months of its life. It does not learn directly from its father, but rather from the generalized song environment of its natal neighborhood.

-> A migrating White-crowned Sparrow was once tracked moving 300 miles in a single night. Alaskan White-crowned Sparrows migrate about 2,600 miles to winter in Southern California.

-> Scientists interested in movement and energetics have discovered that White-crowned Sparrows can run on a treadmill at a pace of about one-third of a mile an hour without tiring out.

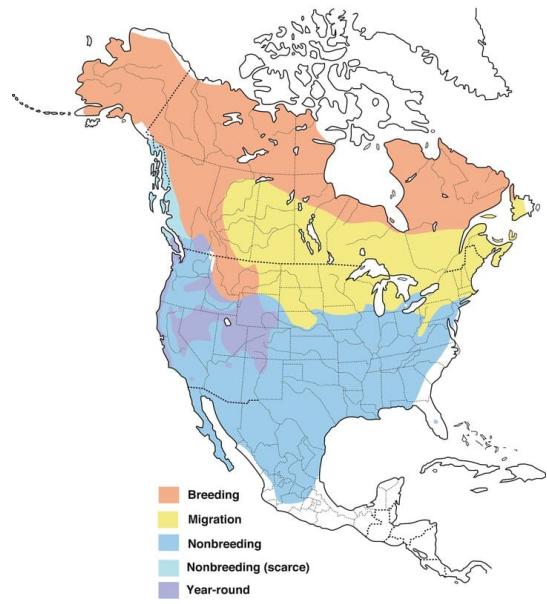
-> White-crowned Sparrows will share their territories with Fox Sparrows, but chase Chipping Sparrows and Dark-eyed Juncos until they leave.

-> Male White-crowned Sparrows do most of the singing, but sometimes females also sing. They usually do this while contesting breeding territories or a winter food source. Their songs are quieter and more variable than male's songs.

-> Because male White-crowned Sparrows learn the songs they grow up with and typically breed close to where they were raised, song dialects frequently form. Males on the edge of two dialects may be bilingual and able to sing both dialects.

-> The oldest recorded White-crowned Sparrow lived in California and was at least 13 years, 4 months old.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult (Dark-lored)

Large grayish sparrow with a long tail and often peaked head shape. Bill is small and orange to yellow or pinkish. Adults have very bold white and black stripes on the head.



Immature (Dark-lored)

Large sparrow with a fairly small bill. Immatures have rusty brown stripes on gray head. Individuals in eastern North America typically have orange to pinkish bills.



Adult (Gambel's)

None



Immature (Gambel's)

Large sparrow often with a peaked head shape. Immatures have similar head pattern to adults, but stripes are brown and gray instead of black and white.



Adult (Yellow-billed)

Large grayish sparrow with a long tail. Often holds crown feathers in a short peak. Adults have bold white and black stripes on the head. Note the gray throat.



Adult (Yellow-billed)

Large sparrow with relatively small bill. Bold head pattern of black and

white stripes. Individuals in western North America usually have yellowish bills and extensive brown on the flanks.



Immature (Yellow-billed)
None



Juvenile
None



Habitat
Breeds in patchy boreal forest, alpine meadows, coastal scrub, and other grassy areas with scattered shrubs or trees. Winters in brushy fields, agricultural areas, roadsides, and thickets.

Chipping Sparrow

Bird Characteristics

Scientific Name: *Spizella passerina*

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Low Concern

Length: 4.7-5.9 in (12-15 cm)

Weight: 0.4-0.6 oz (11-16 g)

Wingspan: 8.3 in (21 cm)

Basic Description: A crisp, pretty sparrow whose bright rufous cap both provides a splash of color and makes adults fairly easy to identify. Chipping Sparrows are common across North America wherever trees are interspersed with grassy openings. Their loud, trilling songs are one of the most common sounds of spring woodlands and suburbs.

Nesting Characteristics

Clutch Size: 2-7 eggs

Number of Broods: 1-3 broods

Egg Length: 0.6-0.8 in (1.5-2 cm)

Egg Width: 0.4-0.6 in (1.1-1.5 cm)

Incubation Period: 10-15 days

Nestling Period: 9-12 days

Egg Description: Pale blue to white, lightly streaked or spotted with black, brown, or purplish.

Condition at Hatching: Naked, helpless, eyes closed, with a few wispy down feathers on the head and body. New hatchlings weigh about one-twentieth of an ounce.

Nest Placement: Females typically build their nests between 3 and 10 feet off the ground, hidden in foliage at the tip of a branch. They gravitate toward evergreen trees, but also nest in crabapples, honeysuckle tangles, maples, ornamental shrubs, and other deciduous species.

Females can be finicky about placement, often beginning to build a nest, then leaving to begin in another spot.

Nest Description: Males guard females as they build nests, but they don't help build. It takes the female 3 to 4 days to finish her nest, a loose cup of rootlets and dried grasses so flimsy you can often see through it. She lines the nest with animal hair and fine plant fibers. Finished nests measure about 4.5 inches across and 2.2 inches deep.

Bird Information

Habitat: You'll find Chipping Sparrows around trees, even though these birds spend a lot of time foraging on the ground. Look for them in grassy forests, woodlands and edges, parks and shrubby or tree-lined backyards. Chipping Sparrows seem to gravitate toward evergreens in places where these trees are available. They also use aspen, birch, oak, pecan, and eucalyptus trees. In the mountains, you can find these birds all the way up to treeline.

Food: Chipping Sparrows mainly eat seeds of a great variety of grasses and herbs. During the breeding season they also hunt for protein-rich insects, and these form a large part of their summer diet. Chipping Sparrows sometimes eat small fruits such as cherries.

Behavior: In summer, male Chipping Sparrows defend territories against other Chipping Sparrows, but often tolerate other species as long as they don't go too near the nest. After the breeding season, Chipping Sparrows form flocks of several dozen, foraging together among grasses and at bird feeders. Their flight pattern is energetic, straight, and only slightly undulating.

Conservation: Chipping Sparrows are common across the continent, but overall the species declined by about 36% between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 230 million, with 38% spending some part of the year in the U.S., 49% in Mexico, and 56% breeding in Canada. The species rates an 8 out of 20 on the Continental Concern Score. Chipping Sparrow is not on the

Color Pattern: Summer Chipping Sparrows look clean and crisp, with frosty underparts, pale face, black line through the eye, topped off with a bright rusty crown. In winter, Chipping Sparrows are subdued, buff brown, with darkly streaked upperparts. The black line through the eye is still visible, and the cap is a warm but more subdued reddish brown.

Fun Facts

-> The early naturalists had a gift for description you just don't see anymore. In 1929, Edward Forbush called the Chipping Sparrow "the little brown-capped pensioner of the dooryard and lawn, that comes about farmhouse doors to glean crumbs shaken from the tablecloth by thrifty housewives."

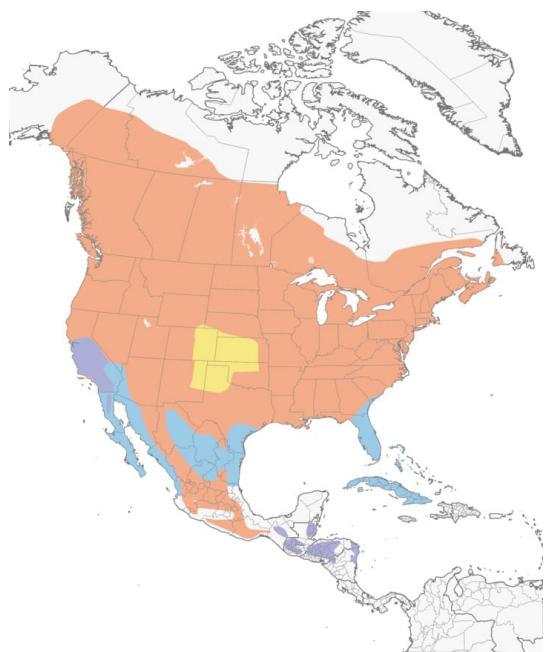
-> In much of the West, Chipping Sparrows disperse shortly after breeding to move to areas with better food resources. It's not unusual to see Chipping Sparrows on alpine tundra or along roadsides in open grasslands. This results in the common misperception that they bred in those areas, when really they simply moved there to molt.

-> Chipping Sparrows typically build their nests low in a shrub or tree, but every once in a while they get creative. People have found their nests among hanging strands of chili peppers, on an old-fashioned mower inside a tool shed, and on a hanging basket filled with moss.

-> The nest of the Chipping Sparrow is of such flimsy construction that light can be seen through it. It probably provides little insulation for the eggs and young.

-> The oldest recorded Chipping Sparrow was at least 10 years, 11 months old when it was recaptured and rereleased during banding operations in Ontario in 1998. It had been banded in the same province in 1987.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Bright rusty crown, black eyeline, and unstreaked grayish belly are distinctive. Gray rump visible in flight.



Nonbreeding adult/immature

Nonbreeding birds are paler than breeding birds, but note brownish crown, dark eyeline, and unstreaked neck and belly.



Immature

Immature birds have a brown crown with thin dark streaks and buffy gray underparts with thin streaks. Note dark eyeline.



Juvenile

Juveniles have streaked underparts and a streaked brown crown.



Breeding adult

Sharply marked sparrow with a rusty cap, black eyeline, and unstreaked gray underparts.



Juvenile

Immature birds have a brown crown with thin dark streaks and buffy gray underparts with thin streaks. The rump is finely streaked cinnamon, which gradually changes to gray.



Nonbreeding adult/immature
None



Breeding adult
Found in open woodlands and forests with grassy clearings across North America.

Dark-eyed Junco

Bird Characteristics

Scientific Name: Junco hyemalis

Order: Passeriformes

Family Name: Passerellidae

Conservation Status: Low Concern

Length: 5.5-6.3 in (14-16 cm)

Weight: 0.6-1.1 oz (18-30 g)

Wingspan: 7.1-9.8 in (18-25 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-3 broods

Egg Length: 0.8-0.8 in (1.9-2.1 cm)

Egg Width: 0.6-0.6 in (1.5-1.6 cm)

Incubation Period: 12-13 days

Nestling Period: 10-13 days

Egg Description: White, gray, pale bluish white, or pale-greenish white speckled with brown, gray and green. Occasionally unmarked.

Condition at Hatching: Naked except for dark gray down on the back, eyes closed, clumsy.

Nest Placement: The female chooses the nest site, typically in a depression or niche on sloping ground, rock face, or amid the tangled roots of an upturned tree. Around people, juncos may nest in or underneath buildings. Occasionally, juncos nest above the ground on horizontal branches (rarely as high as 45 feet), window ledges, and in hanging flower pots or light fixtures.

Nest Description: Females build the nests, using her beak to weave together materials and her body to give the nest its shape. Nests can be quite variable depending on where they are built. Sometimes ground nests get just a fine lining of grasses or pine needles. Other nests may be built on a foundation of twigs, leaves and moss, then lined with grasses, ferns, rootlets, hair, and fine pieces of moss. The nests usually take 3-7 days to build, and when finished they are 3-5.5 inches across, with an inner diameter of 2.4-2.8 inches and depth of 1.6-2.8 inches. It's rare for a junco to reuse a nest.

Bird Information

Habitat: Dark-eyed Juncos breed in forests across much of North America and at elevations ranging from sea level to more than 11,000 feet. They are often found in coniferous forests including pine, Douglas-fir, spruce, and fir, but also in deciduous forests such as aspen, cottonwood, oak, maple, and hickory. During winter and on migration they use a wider variety of habitats including open woodlands, fields, roadsides, parks, and gardens.

Food: Dark-eyed Juncos are primarily seed-eaters, with seeds of chickweed, buckwheat, lamb's quarters, sorrel, and the like making up about 75% of their year-round diet. At feeders they seem to prefer millet over sunflower seeds. During the breeding season, Dark-eyed Juncos also eat insects including beetles, moths, butterflies, caterpillars, ants, wasps, and flies.

Behavior: When foraging, Dark-eyed Juncos typically hop (rather than walk) on the ground, pecking or scratching at the leaf litter, or flit very low in underbrush gleaning food from twigs and leaves. They sometimes fly up from the ground to catch insects from tree trunks. In flight, they flap continuously and pump their tails so the white outer tail feathers flash; flight is very agile as the bird maneuvers through its tangled environs. Male juncos are very territorial in summer, chasing off intruders in rapid flights accompanied by excited call notes. When males court females, they fan or flick open their wings and tail, hop up and down, and pick up pieces of nest material or moss; females seem to prefer males that show more white in the tail. During winter, Dark-eyed Juncos form fairly large flocks, and where wintering ranges overlap you may find several subspecies in a single flock. Juncos also forage with other sparrows and bluebirds. Junco flocks typically have a hierarchy or pecking order, and earlier arrivals tend to rank higher in the group than later arrivals.

Conservation: Dark-eyed Juncos are numerous and widespread, though the North American Breeding Bird Survey reports that populations declined by about 1.4% per year between 1966 and 2015, resulting in a cumulative decline of 50%. Partners in Flight estimates a global breeding population of 200 million with 81% spending some part of the year in the U.S., 65% in Canada, and 7% in Mexico. The species rates an 8 out of 20 on the Continental Concern Score. Dark-eyed Junco is not on the

Color Pattern: Juncos vary across the country (see Regional Differences), but in general they're dark gray or brown birds brightened up by a pink bill and white outer tail feathers that periodically flash open, particularly in flight.

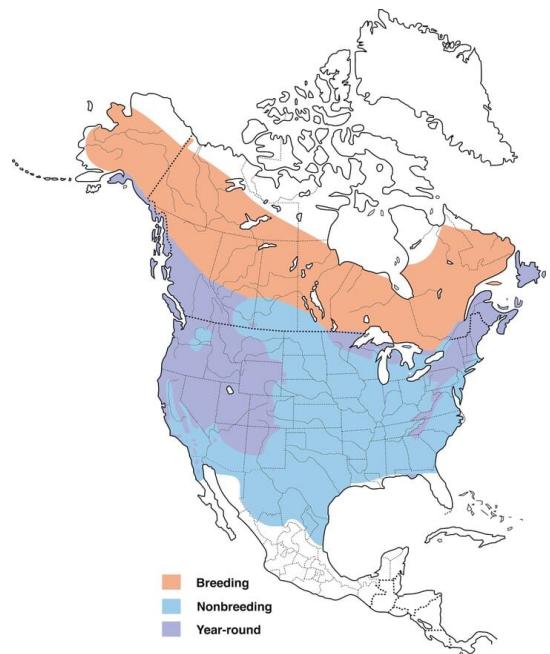
Fun Facts

-> Juncos are the "snowbirds" of the middle latitudes. Over most of the eastern United States, they appear as winter sets in, and then retreat northward each spring. Other juncos are year-round residents, retreating into woodlands during the breeding season, or, like those of the Appalachian Mountains, moving to higher elevations during the warmer months.

-> The Dark-eyed Junco is one of the most common birds in North America and can be found across the continent, from Alaska to Mexico, from California to New York. A recent estimate set the junco's total population at approximately 630 million individuals.

-> The oldest recorded Dark-eyed Junco was at least 11 years, 4 months old when it was recaptured and rereleased during banding operations in West Virginia in 2001. It had been banded in the same state in 1991.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male (Slate-colored)

Medium-sized sparrow with round head, long tail, and fairly small, pale bill. All juncos have prominent white outer tail feathers. Male "Slate-colored" form is mostly gray with white belly.



Adult male (Oregon)

Medium-sized sparrow with round head, small, pale bill, and long tail with white outer feathers. "Oregon" form of western North America has dark brown hood, light brown back, buffy sides, and white belly.



Adult male (Pink-sided)

All juncos have pale bills and white outer tail feathers that they flash in flight. "Pink-sided" form around Rocky Mountains has a slate-gray head, brown back, and pinkish-brown sides.



Adult (Red-backed)

Medium-sized sparrow with white outer tail feathers and small bill. "Red-backed" form of southwestern U.S. has gray head, dark face, and bright reddish brown back. Upper mandible of bill is darker gray than lower.



Adult (Gray-headed)

Medium-sized sparrow with small bill. "Gray-headed" form has gray head, dark face, and bright reddish brown back; very similar to "Red-backed" form but with all-pale bill.



Adult male (White-winged)

Medium-sized sparrow with small, pale bill and white outer tail feathers. "White-winged" form is slightly paler gray than "Slate-colored" form, with faint white wingbars and a dark face.



Adult male (*cismontanus*)

The "*cismontanus*" subspecies breeds in the Yukon Territory and British Columbia. It has a dark brown head, brown back, and white belly.



Female/immature (Slate-colored)

Female and young "Slate-colored" form are variable; can be much browner than the males.



Juvenile (Slate-colored)

Juvenile juncos are streaky, but note the white outer tail feathers and round-headed, small-billed general appearance.



Adult male (Slate-colored)
None



Adult (Slate-colored)
Juncos are among the most common songbirds of North America. They typically live in forest understories but often visit feeders, especially during winter.



Female/immature (Oregon)
Females and immatures of the "Oregon" form have less contrast than the males, with a grayish hood and brown back and sides.

Lapland Longspur

Bird Characteristics

Scientific Name: *Calcarius lapponicus*

Order: Passeriformes

Family Name: Calcariidae

Conservation Status: Low Concern

Length: 5.9-6.3 in (15-16 cm)

Weight: 0.8-1.2 oz (22.3-33.1 g)

Wingspan: 8.7-11.4 in (22-29 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1 brood

Egg Length: 0.8-0.9 in (1.9-2.2 cm)

Egg Width: 0.4-0.6 in (1.1-1.6 cm)

Incubation Period: 11-13 days

Nestling Period: 6-10 days

Condition at Hatching: Helpless.

Nest Placement: On the ground, often well-hidden in a wet meadow at the base of a tussock, with overhanging vegetation.

Nest Description: A Lapland Longspur nest is a tightly woven cup of grasses placed in a hollow on the ground. The nest is often lined with ptarmigan feathers or fur from hare, lemming, or dog.

Bird Information

Habitat: In all seasons, Lapland Longspurs occur exclusively in open, treeless habitats. On their breeding grounds they are found in arctic tundra as well as in high-elevation alpine tundra in the mountain ranges of Alaska. The rest of the year they can be found in any open habitat with short grass or bare ground.

Food: Mostly seeds from grasses and other plants. During the breeding season they also eat insects and other invertebrates. Lapland Longspurs spend almost all of their time foraging for seeds directly on the ground, often in places where dense low vegetation is interspersed with patches of bare ground. Sometimes forages for springtails on snow surface.

Behavior: On their arctic breeding grounds, the size of the male's territory seems dependent on food availability, with higher density of singing males in areas where food is more plentiful. Male Lapland Longspurs arrive to the tundra before the females do, and perform a flight song display, in which a male bird will fly to a height of 20 meters and sing as he glides to the ground, in an attempt to attract a mate. Upon attracting a female's attention, the male performs what is called "Grass Display", in which he gathers grasses and moss to bring to the female. The rest of the year, are highly gregarious, and can be found in flocks numbering in the millions in some parts of their winter range, often mixed in with Snow Buntings and Horned Larks where their ranges overlap.

Conservation: Lapland Longspur populations appear to have remained mostly stable over the last half-century, though their remote arctic breeding range make them almost impossible to assess with standardized survey projects like the

Color Pattern: None

Fun Facts

-> Lapland Longspurs breed in tundra habitats across the arctic. Their name refers to the Lapland region of Scandinavia, which is partly in Sweden and partly in Finland.

-> Lapland Longspurs are busy. During summer, they eat an estimated 3,000 to 10,000 seeds and insects per day, plus feed their nestlings an additional 3,000 insects per day.

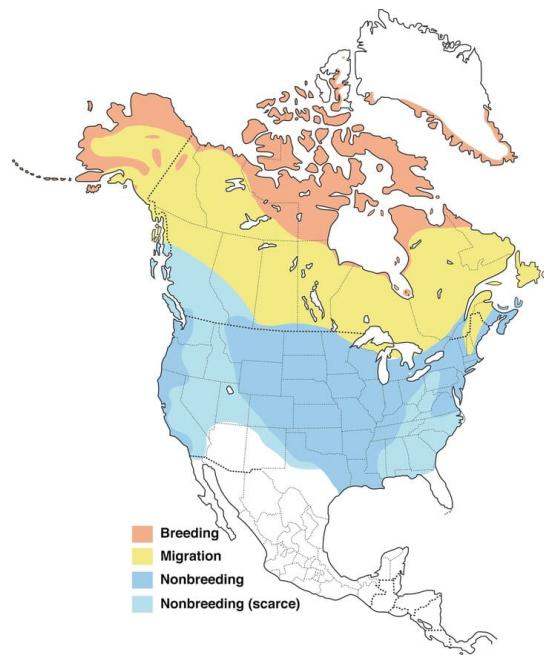
-> The name "longspur" refers to the unusually long hind claw on this species and others in its genus.

-> Of the four species of longspurs that can be found in North America, the Lapland Longspur is the only one that can be found outside of North America. Its range encircles the northern reaches of the Northern Hemisphere and it's a common breeding bird in Eurasia, where it's known as Lapland Bunting.

-> Some winter flocks of Lapland Longspurs have been estimated to contain 4 million birds.

-> The oldest recorded Lapland Longspur was at least 5 years old when it was recaptured and rereleased in Alaska.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

Chunky grassland bird with a stout bill. Breeding males have a black crown, face, and bib and a rusty nape.



Nonbreeding/immature male

Chunky sparrowlike bird. Nonbreeding birds have a heavily streaked back and crown with a clean nape. A dark line outlines the ear and the flanks are streaked. Note rusty patch in the wings.



Nonbreeding adult/immature

Chunky bird with a stout bill. Nonbreeding birds are streaked above with a

black border around the ear, streaked flanks, and a dark often smudgy breast band.



Nonbreeding adult/immature
None



Breeding male
Breeds in wet tundra meadows. Breeding males have a black hood, rusty nape, and yellow bill.



Nonbreeding adult/immature
None



Nonbreeding adult/immature (with Horned Lark)

None

Snow Bunting

Bird Characteristics

Scientific Name: *Plectrophenax nivalis*

Order: Passeriformes

Family Name: Calcariidae

Conservation Status: Low Concern

Length: 5.9 in (15 cm)

Weight: 1.1-1.6 oz (31-46 g)

Wingspan: 11.8 in (30 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-7 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.0 in (2-2.6 cm)

Egg Width: 0.6-0.7 in (1.5-1.8 cm)

Incubation Period: 10-15 days

Nestling Period: 9-15 days

Egg Description: Creamy white with variable brown spots and scrawls.

Condition at Hatching: Helpless, with long, gray-brown down.

Nest Placement: Snow Buntings nest in rocky areas and boulder fields. The nest is typically in a hole in a rock, in a crevice between rocks, or in a crevice under a rock. Females put the nest at the back of the hole or crevice, such that it is rarely visible from the outside. In areas where nest sites are limited, instead of nesting among rocks, they nest in barrels, metal cans, boxes, buildings, and construction rubble.

Nest Description: Female Snow Buntings collect moss and grass to create a thick open cup

that they line with fine grasses, rootlets, fur, and feathers. Because nest sites are limited, Snow Buntings use old nests, adding new lining to nests from the previous season.

Bird Information

Habitat: Snow Buntings spend the summer in the arctic tundra, nesting in rocky areas and foraging in patches of sedges and other vegetation. In the winter they use open fields, croplands with grain stubble, shorelines, and roadsides.

Food: Snow Buntings eat grass and flowering-plant seeds as well as insects and spiders. They pick seeds and insects from the ground or leap up from the ground to grab a seed or other prey.

Behavior: Snow Buntings are ground dwellers, walking or running to find seeds and insects. In the spring, they use hard-packed snow to clean their feathers, which results in a wearing of the feather tips to reveal the bright white feathers below. Males arrive on the breeding grounds 3–4 weeks before females to establish a territory. Males fight and chase all territory intruders. They approach intruders with a flight song display, rising into the air in song where they meet. The two birds often grapple with bills and feet as they tumble back to the ground. Males also use the flight song display to attract a female; males fly steeply up and glide back to the ground with their wings held in a "V." Following the flight display, males show prospecting females potential nest sites before they settle into a monogamous pair bond for the breeding season. Males may occasionally mate with another female. In the winter, restless flocks constantly flush along like blowing snow, with members leapfrogging over each other.

Conservation: Snow Buntings are common, but according to

Color Pattern: None

Fun Facts

-> Male Snow Buntings head to their high arctic breeding grounds when the ground is still covered in snow and temperatures can dip to -22° F. That doesn't seem like a good time to arrive, but males need to arrive early to make sure they get one of the limited nesting spots in a rock crevice. Females join them 3 to 4 weeks later when things start to warm up.

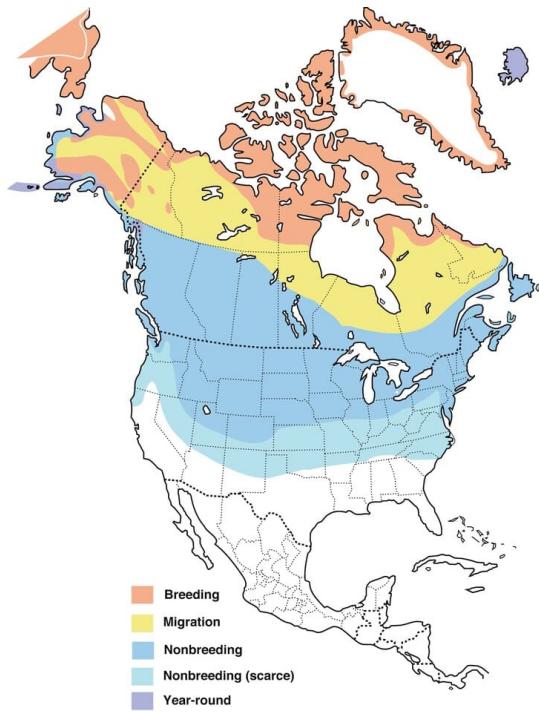
-> The Snow Bunting places its nest deep in cracks or other cavities in rocks. Although such nest sites are relatively secure from predators, rocks are cold. The thick nest lining of fur and feathers helps keep the eggs and nestlings warm, but the female must stay on the nest for most of the incubation period. Because the female can't leave the nest very often, the male brings her food almost every 15 minutes.

-> Although breeding and nonbreeding Snow Buntings look quite different, the change from nonbreeding to breeding plumage isn't caused by growing in a new set of feathers (molt). The change from brownish to pure white happens when males rub their bellies and heads on the

snow, wearing down the brown feather tips to reveal immaculate white features below.

-> The oldest recorded Snow Bunting was a male, and at least 8 years, 9 months old when he was recaptured and rereleased during banding operations in Alaska, the same state where he had been banded.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding male

Chunky ground-dwelling bird with a short conical bill. Breeding males are mostly white with a black back.



Breeding female

Medium-sized full-bodied songbird with a small conical bill. Breeding females have a dark and streaky back with a dusky head and white underparts.



Nonbreeding male

Small-billed sparrowlike bird. Nonbreeding males are white below with rusty

patches on the head, "ear," and shoulders. Its back is dark and streaky.



Nonbreeding female

Sparrowlike bird with a small conical bill. Nonbreeding females have rusty patches on the head, "ear," and chest. The back is dark with rusty streaks.



Juvenile

Juveniles are grayish overall with darker wings and a paler belly.



Nonbreeding male

Distinctive plumage pattern in flight. On males the outer wings are dark while the inner wings are white. The outer tail feathers also flash white in flight.



Flock

Forms flocks with other Snow Buntings during winter where they tend to blend in with their surroundings. Forages in fields or along lake shores.



Habitat

Breeds in rocky areas in the tundra. Nests on the ground in rock crevices.



Flock

None

Northern Cardinal

Bird Characteristics

Scientific Name: *Cardinalis cardinalis*

Order: Passeriformes

Family Name: Cardinalidae

Conservation Status: Low Concern

Length: 8.3-9.1 in (21-23 cm)

Weight: 1.5-1.7 oz (42-48 g)

Wingspan: 9.8-12.2 in (25-31 cm)

Basic Description: The male Northern Cardinal is perhaps responsible for getting more people to open up a field guide than any other bird. They're a perfect combination of familiarity, conspicuousness, and style: a shade of red you can't take your eyes off. Even the brown females sport a sharp crest and warm red accents. Cardinals don't migrate and they don't molt into a dull plumage, so they're still breathtaking in winter's snowy backyards. In summer, their sweet whistles are one of the first sounds of the morning.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.1 in (2.2-2.7 cm)

Egg Width: 0.7-0.8 in (1.7-2 cm)

Incubation Period: 11-13 days

Nestling Period: 7-13 days

Egg Description: Grayish white, buffy white, or greenish white speckled with pale gray to brown.

Condition at Hatching: Naked except for sparse tufts of grayish down, eyes closed, clumsy.

Nest Placement: A week or two before the female starts building, she starts to visit possible nest sites with the male following along. The pair call back and forth and hold nesting material

in their bills as they assess each site. Nests tend to be wedged into a fork of small branches in a sapling, shrub, or vine tangle, 1-15 feet high and hidden in dense foliage. They use many kinds of trees and shrubs, including dogwood, honeysuckle, hawthorn, grape, redcedar, spruce, pines, hemlock, rose bushes, blackberry brambles, elms, sugar maples, and box elders.

Nest Description: Males sometimes bring nest material to the female, who does most of the building. She crushes twigs with her beak until they're pliable, then turns in the nest to bend the twigs around her body and push them into a cup shape with her feet. The cup has four layers: coarse twigs (and sometimes bits of trash) covered in a leafy mat, then lined with grapevine bark and finally grasses, stems, rootlets, and pine needles. The nest typically takes 3 to 9 days to build; the finished product is 2-3 inches tall, 4 inches across, with an inner diameter of about 3 inches. Cardinals usually don't use their nests more than once.

Bird Information

Habitat: Look for Northern Cardinals in dense shrubby areas such as forest edges, overgrown fields, hedgerows, backyards, marshy thickets, mesquite, regrowing forest, and ornamental landscaping. Cardinals nest in dense foliage and look for conspicuous, fairly high perches for singing. Growth of towns and suburbs across eastern North America has helped the cardinal expand its range northward.

Food: Northern Cardinals eat mainly seeds and fruit, supplementing these with insects (and feeding nestlings mostly insects). Common fruits and seeds include dogwood, wild grape, buckwheat, grasses, sedges, mulberry, hackberry, blackberry, sumac, tulip-tree, and corn. Cardinals eat many kinds of birdseed, particularly black oil sunflower seed. They also eat beetles, crickets, katydids, leafhoppers, cicadas, flies, centipedes, spiders, butterflies, and moths.

Behavior: Northern Cardinals hop through low branches and forage on or near the ground. Cardinals commonly sing and preen from a high branch of a shrub. The distinctive crest can be raised and pointed when agitated or lowered and barely visible while resting. You typically see cardinals moving around in pairs during the breeding season, but in fall and winter they can form fairly large flocks of a dozen to several dozen birds. During foraging, young birds give way to adults and females tend to give way to males. Cardinals sometimes forage with other species, including Dark-eyed Juncos, White-throated Sparrows, other sparrow species, Tufted Titmice, goldfinches, and Pyrrhuloxias. They fly somewhat reluctantly on their short, round wings, taking short trips between thickets while foraging. Pairs may stay together throughout winter, but up to 20 percent of pairs split up by the next season.

Conservation: Northern Cardinal populations slightly increased between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 120 million with 77% living in the U.S., and 22% in Mexico. They rate a 5 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Male cardinals are brilliant red all over, with a reddish bill and black face immediately around the bill. Females are pale brown overall with warm reddish tinges in the wings, tail, and crest. They have the same black face and red-orange bill.

Fun Facts

-> Only a few female North American songbirds sing, but the female Northern Cardinal does, and often while sitting on the nest. This may give the male information about when to bring food to the nest. A mated pair shares song phrases, but the female may sing a longer and slightly more complex song than the male.

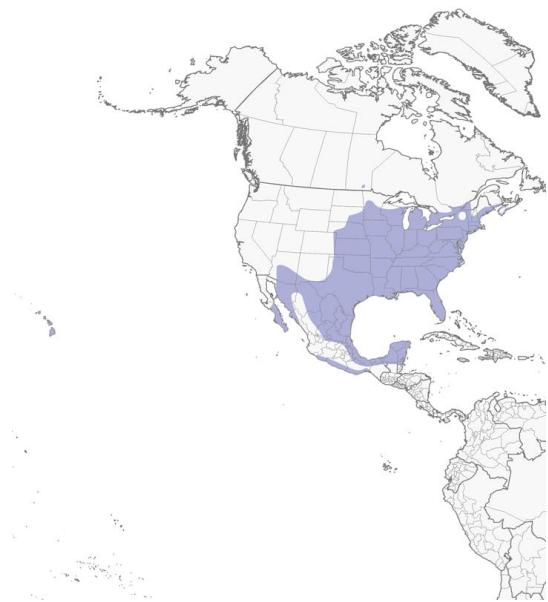
-> Many people are perplexed each spring by the sight of a cardinal attacking its reflection in a window, car mirror, or shiny bumper. Both males and females do this, and most often in spring and early summer when they are obsessed with defending their territory against any intruders. Birds may spend hours fighting these intruders without giving up. A few weeks later, as levels of aggressive hormones subside, these attacks should end (though one female kept up this behavior every day or so for six months without stopping).

-> The male cardinal fiercely defends its breeding territory from other males. When a male sees its reflection in glass surfaces, it frequently will spend hours fighting the imaginary intruder.

-> A perennial favorite among people, the Northern Cardinal is the state bird of seven states.

-> The oldest recorded Northern Cardinal was a female, and was 15 years, 9 months old when she was found in Pennsylvania.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Male

Large, long-tailed songbird with a short, very thick bill and a prominent crest. Males are brilliant red with a black mask and throat.



Female

Large, crested songbird with a short, thick bill. Females are pale brown overall with warm reddish tinges in the wings, tail, and crest.



Juvenile

Juveniles are similar to females, but have a gray to black bill.



Female

Some birds lose all the feathers from their head at the same time, remaining bald until the feathers grow back.



Male

A plump, brilliant red songbird with a crest that is common in yards and suburban areas.



Male

Often sits with a hunched-over posture and with the tail pointed straight down.



Female

Year-round resident that adds color to winter landscapes in the East.



Male

Found in backyards, parks, woodlots, and shrubby forest edges.

Indigo Bunting

Bird Characteristics

Scientific Name: *Passerina cyanea*

Order: Passeriformes

Family Name: Cardinalidae

Conservation Status: Low Concern

Length: 4.7-5.1 in (12-13 cm)

Weight: 0.4-0.6 oz (12-18 g)

Wingspan: 7.5-8.7 in (19-22 cm)

Basic Description: The all-blue male Indigo Bunting sings with cheerful gusto and looks like a scrap of sky with wings. Sometimes nicknamed "blue canaries," these brilliantly colored yet common and widespread birds whistle their bouncy songs through the late spring and summer all over eastern North America. Look for Indigo Buntings in weedy fields and shrubby areas near trees, singing from dawn to dusk atop the tallest perch in sight or foraging for seeds and insects in low vegetation.

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1-3 broods

Egg Length: 0.7-0.8 in (1.7-2.1 cm)

Egg Width: 0.5-0.6 in (1.3-1.5 cm)

Incubation Period: 11-14 days

Nestling Period: 8-14 days

Egg Description: Unmarked white; a few have brownish spots.

Condition at Hatching: Naked except for sparse down; eyes closed; helpless.

Nest Placement: Indigo Buntings nest in fields and on the edges of woods, roadsides, and railroad rights-of-way. The female chooses a concealed nest site in low vegetation, within a

meter of the ground. She locates the nest in a crotch or fork where branches meet, amid a supporting network of vertical and diagonal twigs. Occasionally an Indigo Bunting builds her nest in crop plants like corn or soybeans.

Nest Description: The female Indigo Bunting builds the nest alone—a process that takes up to 8 days early in the season and as little as 2 days later in the summer. The male may watch but does not participate. The nest is an open cup woven of leaves, grasses, stems, and bark, and wrapped with spider web. The inside of the cup is lined with slender grasses, tiny roots, strips of thin bark, thistle down, and sometimes deer hair. The cup is about 1.5 inches deep inside, with an outside diameter of 3 inches and an inside diameter of two inches.

Bird Information

Habitat: Indigo Buntings breed in brushy and weedy areas. They're common on the edges of woods and fields; along roads, streams, rivers, and powerline cuts; in logged forest plots, brushy canyons, and abandoned fields where shrubby growth is returning. While migrating and in winter, Indigo Buntings forage in fields, lawns, grasslands, rice fields, as well as in shrubs, and trees.

Food: Indigo Buntings eat small seeds, berries, buds, and insects. Common seed forage includes thistles, dandelions, goldenrods, and grain such as oats; berries eaten include blueberries, strawberries, blackberries, serviceberries, and elderberries. Spiders and insect prey, which form the majority of their diet during summer months, may include caterpillars, grasshoppers, aphids, cicadas and beetles such as canker worms, click beetles, and weevils. The brown-tail moth caterpillar, which is covered with noxious hairs that cause nasty rashes and respiratory problems in people, presents no obstacle to a hungry bunting. On arrival to breeding grounds in spring, Indigo Buntings may feed on twigs, buds, and leaves of trees including aspen, cottonwood, oaks, beech, elm, maple, and hickory.

Behavior: Foraging for seeds and gleaning insects off branches in low vegetation, Indigo Buntings hop along the ground and cling athletically to stems and reeds. Singing males tend to perch high in shrubs, trees, or on telephone lines. When disturbed, an Indigo Bunting may fly to the top of a shrub, raise its crest feathers, and swing its tail from side to side. Indigo Buntings usually forage alone during the breeding season; on their wintering grounds and during spring and fall migration, they feed in flocks on lawns and open grasslands. Males defending territory approach each other with slow, fluttering "butterfly" display flight, holding their wings at right angles to their bodies. Early in the breeding season, you may see two males grappling in the air and falling to the ground, singing loudly, clasping each other's feet.

Conservation: Indigo Buntings are generally abundant throughout their range, though populations declined by about 31% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 78 million with 98% spending some part of the year in the U.S., 51% in Mexico, and 2% breeding in Canada. The species rates a 9 out of 20 on the Continental Concern Score. Indigo Bunting is a U.S.-Canada Stewardship Species and is not on the

Color Pattern: A breeding male Indigo Bunting is blue all over, with slightly richer blue on his head and a shiny, silver-gray bill. Females are basically brown, with faint streaking on the breast, a whitish throat, and sometimes a touch of blue on the wings, tail, or rump. Immature males are patchy blue and brown.

Fun Facts

-> Indigo Buntings migrate at night, using the stars for guidance. Researchers demonstrated this process in the late 1960s by studying captive Indigo Buntings in a planetarium and then under the natural night sky. The birds possess an internal clock that enables them to continually adjust their angle of orientation to a star—even as that star moves through the night sky.

-> Indigo Buntings learn their songs as youngsters, from nearby males but not from their fathers. Buntings a few hundred yards apart generally sing different songs, while those in the same "song neighborhood" share nearly identical songs. A local song may persist up to 20 years, gradually changing as new singers add novel variations.

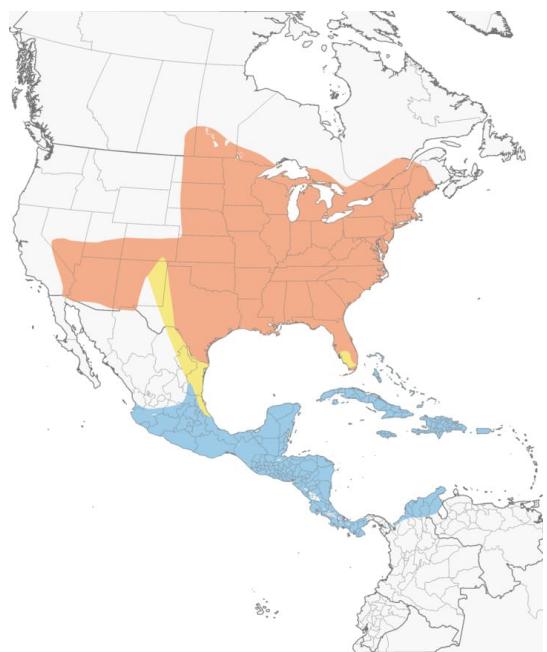
-> Like all other blue birds, Indigo Buntings lack blue pigment. Their jewel-like color comes instead from microscopic structures in the feathers that refract and reflect blue light, much like the airborne particles that cause the sky to look blue.

-> Bunting plumage does contain the pigment melanin, whose dull brown-black hue you can see if you hold a blue feather up so the light comes from behind it, instead of toward it.

-> Indigo and Lazuli buntings defend territories against each other in the western Great Plains where they occur together, share songs, and sometimes interbreed.

-> The oldest recorded wild Indigo Bunting was a male, and at least 13 years, 3 months old when he was recaptured and rereleased during banding operations in Ohio.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

Sparrow-sized, stocky bird with a short tail and a conical bill. Breeding males are bright blue overall, with slightly richer blue on the head.



Female/immature male

Sparrow-sized but finchlike in appearance with a conical bill. Females/immatures are brownish, with faint streaking on the breast and sometimes a touch of blue on the wings, tail, or rump. Note white throat.



Nonbreeding male

Finchlike with a short tail and conical bill. Nonbreeding males are covered

in irregular patches of blue and brown.



Female/immature male
None



Female/immature male
Stocky with a conical bill. Females/immatures are brownish overall (darker above and paler below) with blue highlights in the wings and tail. Note tan wingbars.



Breeding male
Found in weedy and brushy areas, especially where fields meet forests.

Painted Bunting

Bird Characteristics

Scientific Name: *Passerina ciris*

Order: Passeriformes

Family Name: Cardinalidae

Conservation Status: Low Concern

Length: 4.7-5.1 in (12-13 cm)

Weight: 0.5-0.7 oz (13-19 g)

Basic Description: None

Nesting Characteristics

Clutch Size: 3-4 eggs

Number of Broods: 1-3 broods

Egg Length: 0.7-0.8 in (1.8-2.1 cm)

Egg Width: 0.6-0.6 in (1.4-1.5 cm)

Incubation Period: 11-12 days

Nestling Period: 9 days

Egg Description: Grayish or pale bluish white, with fine speckles of brown and gray.

Condition at Hatching: Helpless and nearly naked, with some light down, weighing less than a tenth of an ounce.

Nest Placement: Both members of a pair search through dense foliage for nest sites. They usually choose a spot 3–6 feet off the ground—sometimes as high as 50 feet when there is no low vegetation—with nearby perches and open feeding grounds. Common nest plants include Spanish moss, mulberry, mesquite, elm, Osage-orange, greenbrier, oak, myrtle, and pine.

Nest Description: In as little as 2 days, the female builds a well-constructed nest that is firmly attached to a supporting plant. Forming an inner cup 2 inches wide and 1.5 inches deep, she

weaves together some combination of weed stems, leaf skeletons, bark strips, twigs, rootlets, grasses, and sometimes tissue paper or rag scraps. She binds the materials with cobwebs and sometimes lines the nest with horsehair.

Bird Information

Habitat: Painted Buntings breed in semi-open habitats with scattered shrubs or trees. Birds from the south-central U.S. breeding population use abandoned farms, strips of woodland between overgrown fields, brushy roadsides or streamsides, and patches of grasses, weeds, and wildflowers. Individuals of the coastal Southeast population breed in scrub communities, wooded back dunes, palmetto thickets, edges of maritime hammocks, hedges, yards, fallow fields, and old citrus groves. The two breeding populations also have separate wintering grounds, though both gravitate toward high grass, shrubby overgrown pasture, and thickets. Eastern breeders winter in shrubby or grassy habitats in Florida and the northern Caribbean. Birds from the south-central U.S. winter in similar habitats in southern Mexico and Central America.

Food: Painted Buntings eat seeds for most of the year, switching to mostly insects in the breeding season. They forage on the ground for seeds of bristle grass, pigweed, wood sorrel, spurge, panic grass, St. John's wort, sedge, dock, pine, rose, wheat, or fig. They may fly up to grab a plant stem and drag it to the ground, holding it in place with one foot while eating the seeds. During the breeding season they catch grasshoppers, weevils and other beetles, caterpillars, bugs, spiders, snails, wasps, and flies. In addition to ground foraging, in the breeding season they also forage in marshes and in trees, sometimes over 30 feet off the ground. The buntings may pull invertebrates from spiderwebs, or even dive straight through a web to steal a spider's prey.

Behavior: Males vigorously defend territories of about 3 acres, fighting other males by pecking, grappling, and striking each other with their wings. Their fights end with lost feathers, wounds, eye damage, and sometimes death. A male may also dive at and hit a flying female, driving her to the ground and pulling at her feathers. When courting, however, the male goes to great lengths to ingratiate himself with his prospective mate. Among other displays, he spreads his feathers like a miniature male turkey, while the female pecks at the ground. The species is mostly monogamous, but occasionally two females will nest on one male's territory. Though severely territorial during the breeding season, Painted Buntings may form small flocks on the wintering grounds, often joining other seed-eating species.

Conservation: Painted Buntings are still fairly common, but populations have been dropping for several decades. The North American Breeding Bird Survey estimated a decline of 62% between 1966 and 1995, but the 1966-2014 survey does not find significant decreases, suggesting that populations may have stabilized, or at least the decline has slowed, since 1995. Partners in Flight estimates a global breeding population of 13 million, with 80% spending at least part of the year in the U.S., and 51% in Mexico. The species rates a 12 out of 20 on the Continental Concern Score, and is not on the

Color Pattern: Males are stunningly colored with blue heads, red underparts, and green backs. Females and immatures are a uniform, bright yellow-green overall, with a pale eyering. Though they are basically unpatterned, their overall color is greener and brighter than similar songbirds.

Fun Facts

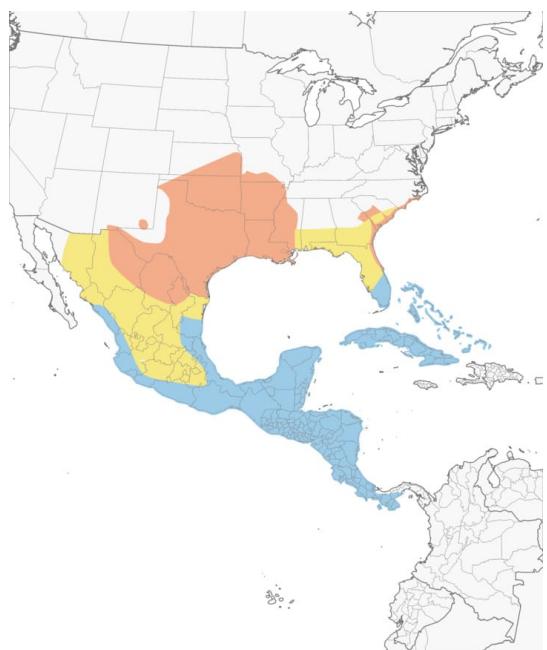
-> The western population of Painted Buntings begins its fall migration before molting, molts in staging areas in northern Mexico, then continues to migrate further south. This migration-molt pattern is common among waterfowl but very rare among songbirds. In contrast to the western population, the eastern population of Painted Buntings molts on its breeding grounds before migration.

-> The French name of the Painted Bunting,

-> In 1841 John James Audubon reported that “thousands” of the colorful birds were caught every spring and shipped from New Orleans to Europe, where they fetched more than 100 times the price when sold as cage birds. They are still illegally trapped and sold in large numbers in Mexico, Central America, the Caribbean, and to a lesser extent in Florida, despite efforts by conservationists to

-> The oldest recorded wild Painted Bunting was at least 12 years old, as reported from a Florida banding study.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Stocky, finchlike bird with a stubby, thick, seed-eating bill. Adult males are unmistakable with their brilliant blue head, green back, red rump and red belly.



Female/immature male

Females and immatures are a uniform, bright yellow-green overall, with a pale eyering.



Immature male

None



Female/immature male

Stocky bird with a finchlike conical bill. Females/immatures are yellow-green overall, with a pale eyering. Oftentimes appears dull overall, but in general appears greener than similar species.



Adult male

Males are stunningly colored with blue heads, red underparts, and green backs. Forages on the ground most often in dense cover, among grasses, or at seed feeders.



Adult male

Breeds in dense brush, often adjacent to thick, grassy areas or woodland edges.

Scarlet Tanager

Bird Characteristics

Scientific Name: *Piranga olivacea*

Order: Passeriformes

Family Name: Cardinalidae

Conservation Status: Low Concern

Length: 6.3-6.7 in (16-17 cm)

Weight: 0.8-1.3 oz (23-38 g)

Wingspan: 9.8-11.4 in (25-29 cm)

Basic Description: Male Scarlet Tanagers are among the most blindingly gorgeous birds in an eastern forest in summer, with blood-red bodies set off by jet-black wings and tail. They're also one of the most frustratingly hard to find as they stay high in the forest canopy singing rich, burry songs. The yellowish-green, dark-winged females can be even harder to spot until you key in on this bird's

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.1 in (2-2.7 cm)

Egg Width: 0.6-0.7 in (1.5-1.8 cm)

Incubation Period: 12-14 days

Nestling Period: 9-15 days

Egg Description: Greenish blue to light blue speckled with chestnut, purplish red, and lilac.

Condition at Hatching: Helpless, eyes closed, with orange skin and small tufts of grayish white down on the head and back.

Nest Placement: The female chooses the nest site, usually selecting a shaded spot within a cluster of leaves at a juncture of small branches. Nests are often fairly high (50 feet or more

from the ground) on a nearly horizontal branch well away from the trunk. The site usually has an unobstructed view of the ground and open flyways from nearby trees. Scarlet Tanagers tend to nest in mature deciduous trees such as maple, beech, and oak, but they also nest in eastern hemlock.

Nest Description: The female gathers nesting material from the forest floor and builds a flimsy nest in 3–4 days, spending relatively little time on it each day. She drops material onto the nest, hops in, and molds it into shape by pressing her body against the sides and bottom, then getting out and weaving in loose ends. The nest is a loosely woven saucer of twigs, grasses, plant stalks, bark strips, rootlets, and pine needles. It has a shallow and asymmetrical interior space, lined with grass, fine rootlets, fine plant fibers, vine tendrils, and pine needles.

Bird Information

Habitat: Scarlet Tanagers breed in mature deciduous forests and mixed deciduous-coniferous forests in eastern North America. They nest in oak, pine-oak, oak-hickory, beech, hemlock-hardwood, and occasionally pure eastern hemlock forests. In Canada they sometimes extend into boreal forests in stands of aspen, balsam poplar, and birch. Breeding Scarlet Tanagers prefer large forest tracts with large trees. During spring and fall they use similar forest habitats as well as open spaces such as parks and gardens. When they arrive in the southern United States coast in early spring they feed in shrubby vegetation, grassy fields, and on the ground. Scarlet Tanagers winter in mature forests and forest edges in northern and western South America, mostly on hills and mountains. They range south as far as the Bolivian lowlands.

Food: Scarlet Tanagers eat mainly insects along with some fruit and tender buds. Their invertebrate diet includes ants, sawflies, moths, butterflies, beetles, flies, cicadas, leafhoppers, spittlebugs, treehoppers, plant lice, scale insects, termites, grasshoppers, locusts, dragonflies, dobsonflies, snails, earthworms, and spiders. While searching for these tidbits they walk along branches high in the canopy or (rarely) along the ground, or vertically on tree trunks to probe the bark. Scarlet Tanagers perch or hover with fast wingbeats to grab insects from leaves, bark, and flowers, and they catch flying insects like bees, wasps, and hornets from the air. They swallow small larvae whole, but they kill larger prey by pressing it into a branch. In the winter, they forage in mixed-species flocks with woodcreepers, flycatchers, barbets, and tropical tanagers.

Behavior: Scarlet Tanagers are strong fliers, making swift, direct flights and migrating long distances in fall and spring. Males arrive early on their breeding grounds to defend loose territories that include mating, nesting, and foraging areas. Territorial singing battles sometimes can escalate to confrontations, where one or both males spread and droop their wings and raise their tail in threat. If neither backs down, the standoff culminates in one male chasing another. Scarlet Tanagers are monogamous within each breeding season but switch mates from year to year. Parents feed their young for up to two weeks after the birds fledge, and then the family disperses before migrating. On wintering grounds Scarlet Tanagers join up with other species in foraging flocks.

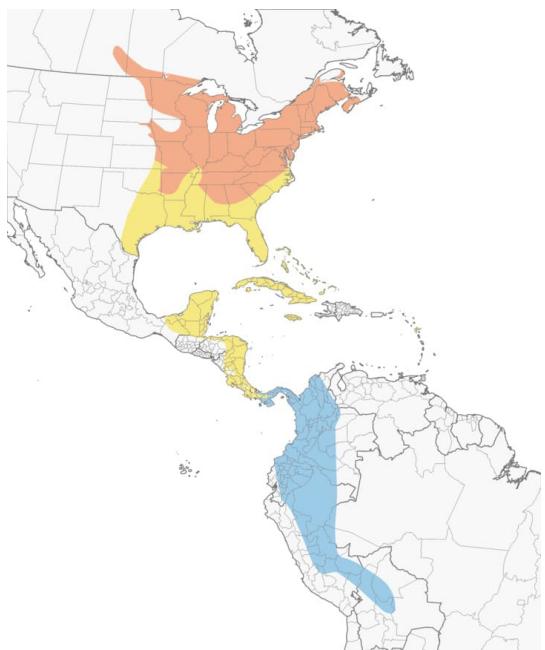
Conservation: Scarlet Tanager populations declined by about 14% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 2.2 million with 93% spending some part of the year in the U.S., and 7% breeding in Canada. The species rates an 11 out of 20 on the Continental Concern Score. Scarlet Tanager is not on the

Color Pattern: In spring and summer, adult males are an unmistakable, brilliant red with black wings and tails. Females and fall immatures are olive-yellow with darker olive wings and tails. After breeding, adult males molt to female-like plumage, but with black wings and tail.

Fun Facts

- > On the wintering grounds in South America the Scarlet Tanager joins mixed species foraging flocks with flycatchers, antbirds, woodcreepers, and resident tropical tanagers.
- > The female Scarlet Tanager sings a song similar to the male's, but softer, shorter, and less harsh. She sings in answer to the male's song and while she is gathering nesting material.
- > The response of the Scarlet Tanager to habitat fragmentation varies from place to place. Results from the Cornell Lab's Project Tanager indicate that in the heart of the species' range in the Northeast, it can be found in small forest patches. In the Midwest, similar sized forest patches tend to have no tanagers.
- > Scarlet Tanagers often play host to eggs of the Brown-headed Cowbird, particularly where the forest habitat has been fragmented. When a pair of tanagers notices a female cowbird approaching, they aggressively drive her away. If they don't notice, the cowbird gets rid of a tanager egg and replaces it with one of her own. The tanagers apparently can't tell the difference, either before or after the egg hatches, and they raise the imposter along with the rest of their brood.
- > The oldest Scarlet Tanager on record was a male, and at least 11 years, 11 months old. He was banded in Pennsylvania in 1990, and found in Texas in 2001.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

Stocky songbird with a thick blunt-tipped bill. Breeding males are unmistakable with bright red bodies and black wings and tails.



Female

Medium-sized rather stocky songbird. Females/immatures are olive-yellow with darker wings and tails.



Nonbreeding male

Nonbreeding males look like females, but have darker black wings and tail.



Breeding male

Chunky songbird with brilliant red plumage. Some males may have more orangish feathers on the back.



Breeding male

Some males have orangish feathers in the wing that could be leftover from molting into breeding plumage.



Nonbreeding male

None



Breeding male

None



Breeding male

Breeds in large tracts of deciduous and mixed deciduous-evergreen forests.

Bobolink

Bird Characteristics

Scientific Name: *Dolichonyx oryzivorus*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Declining

Length: 5.9-8.3 in (15-21 cm)

Weight: 1.0-2.0 oz (29-56 g)

Wingspan: 10.6 in (27 cm)

Basic Description: Perched on a grass stem or displaying in flight over a field, breeding male Bobolinks are striking. No other North American bird has a white back and black underparts (some have described this look as wearing a tuxedo backwards). Added to this are the male's rich, straw-colored patch on the head and his bubbling, virtuosic song. As summer ends he molts into a buff and brown female-like plumage. Though they're still fairly common in grasslands, Bobolink numbers are declining.

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-0.9 in (2-2.3 cm)

Egg Width: 0.6-0.7 in (1.5-1.7 cm)

Incubation Period: 11-14 days

Nestling Period: 10-11 days

Egg Description: Pale bluish gray to reddish brown, with irregular spots of brown and lavender.

Condition at Hatching: Helpless, with closed eyes, and nearly naked except for sparse yellowish down.

Bird Information

Habitat: Bobolinks breed in open areas across the northern United States and southern Canada, preferring large fields with a mixture of grasses and broad-leaved plants like legumes and dandelions. They formerly nested mainly in tallgrass and mixed prairie of the midwestern United States and south-central Canada. They now also nest in eastern hayfields and meadows, which became available as eastern forests were cleared, and west of the Great Plains in recently irrigated habitats. After breeding, Bobolinks move to freshwater marshes and coastal areas to molt before migrating. Their main wintering area is in the southern interior of South America, where they spend their time in grasslands, marshes, rice fields, and sorghum fields.

Food: During the breeding season, Bobolinks eat weed seeds, insect larvae, adult insects, spiders, and other arachnids. They feed their protein-dependent nestlings with invertebrates exclusively. They forage for seeds at the tops of nonwoody plants, often perching on the plant itself while extracting the seeds slowly and carefully. They glean insects and spiders closer to the base of the vegetation. During migration and winter, Bobolinks eat wild and domesticated rice, oats, other small grains, corn, tassels, weed seeds, and occasional insects. Normally daytime foragers, they may feed after dark on bright nights during migration, to build fat reserves for their long flight over the Gulf of Mexico and the Caribbean.

Behavior: undefined

Conservation:

Color Pattern: Breeding male Bobolinks are mostly black with a white back and rump, and a rich buffy nape. Females and nonbreeding males are warm buffy brown, streaked with dark brown on the back and flanks. They have bold brown stripes on the crown but are unstreaked on the nape of the neck. The bill is pinkish.

Fun Facts

-> The Bobolink is one of the world's most impressive songbird migrants, traveling some 12,500 miles (20,000 kilometers) to and from southern South America every year. Throughout its lifetime, it may travel the equivalent of 4 or 5 times around the circumference of the earth.

-> The species name of the Bobolink,

-> A migrating Bobolink can orient itself with the earth's magnetic field, thanks to iron oxide in bristles of its nasal cavity and in tissues around the olfactory bulb and nerve. Bobolinks also use the starry night sky to guide their travels.

-> Bobolink molt twice a year, completely changing all their feathers on both the breeding and wintering grounds. When the male grows new feathers on the wintering grounds they all have yellowish tips, so he still looks like a nonbreeding bird. Eventually the pale tips wear off to reveal his striking black-and-white breeding colors.

-> Normally a daylight forager, the Bobolink sometimes feeds after dark on bright nights

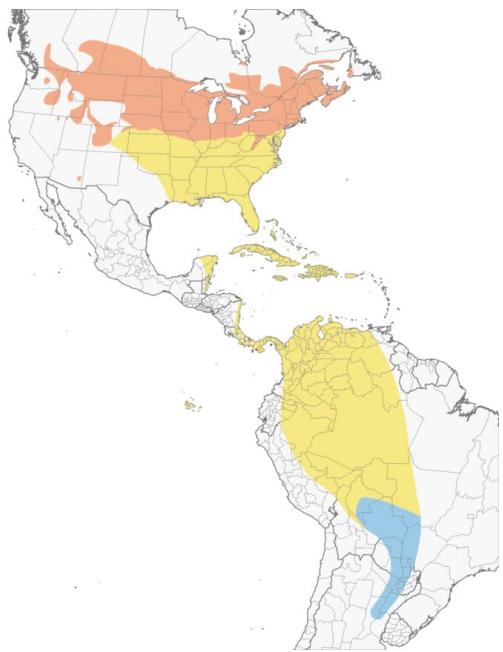
during migration, to build fat reserves for its long flight over the Gulf of Mexico.

-> Bobolinks are related to blackbirds, which are often polygynous, meaning that males may have several mates per breeding season. Bobolinks are polygynous, too—but they're also often polyandrous: each clutch of eggs laid by a single female may have multiple fathers.

-> The oldest Bobolink on record was a female known to be at least 9 years old.

-> The Bobolink was immortalized by nineteenth-century American poet William Cullen Bryant, in a poem titled

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

Sparrowlike bird related to blackbirds with a large flat head, a short neck, and a short tail. Breeding males are black below and black and white above with a yellowish patch on the back of the head.



Female/nonbreeding male

None



Breeding male

Long-bodied with a short tail and flat head. From behind breeding males have a white rump, white shoulders, and a yellowish patch on the back of

the head.



Breeding male

Rather big headed and short necked. Breeding males are entirely black below with a straw colored patch on the back of the head.



Female/nonbreeding male

Medium-sized songbird with a pointed bill, flat head, and short tail. Females/nonbreeding birds are warm brown below with streaking on the flanks. Note pinkish bill, unstreaked nape, and dark eyeline.



Female/nonbreeding male

Females/nonbreeding males have bold buffy and brown streaks down the back, but have an unstreaked nape. Note dark eyeline and brown stripes on

the crown.



Female/nonbreeding male
None



Breeding male
In spring, male Bobolinks give conspicuous display flights low over grasslands, fluttering their wings while singing. Note white rump in flight.



Habitat
Found in tall grasslands, uncut pastures, overgrown fields, meadows, and prairies.

Red-winged Blackbird

Bird Characteristics

Scientific Name: *Agelaius phoeniceus*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Low Concern

Length: 6.7-9.1 in (17-23 cm)

Weight: 1.1-2.7 oz (32-77 g)

Wingspan: 12.2-15.8 in (31-40 cm)

Basic Description: None

Nesting Characteristics

Clutch Size: 2-4 eggs

Number of Broods: 1-2 broods

Egg Length: 0.9-1.1 in (2.2-2.7 cm)

Egg Width: 0.6-0.8 in (1.6-1.9 cm)

Incubation Period: 11-13 days

Nestling Period: 11-14 days

Egg Description: Pale blue-green to gray with black or brown markings.

Condition at Hatching: Blind, naked with scant buffy or grayish down, poorly coordinated.

Nest Placement: Red-winged Blackbirds build their nests low among vertical shoots of marsh vegetation, shrubs, or trees. Females choose the nest site with some input from the male. Typically, she puts the nest near the ground (or water surface in a marsh), in dense, grass-like vegetation such as cattails, bulrushes, sedges, and

Nest Description: Females build the nests by winding stringy plant material around several close, upright stems and weaving in a platform of coarse, wet vegetation. Around and over this

she adds more wet leaves and decayed wood, plastering the inside with mud to make a cup. Finally, she lines the cup with fine, dry grasses. One nest picked apart by a naturalist in the 1930s had been made by weaving together 34 strips of willow bark and 142 cattail leaves, some 2 feet long. When finished the nest is 4 to 7 inches across and 3 to 7 inches deep.

Bird Information

Habitat: Red-winged Blackbirds spend the breeding season in wet places like fresh or saltwater marshes and rice paddies. You may also find them breeding in drier places like sedge meadows, alfalfa fields, and fallow fields. Occasionally, Red-winged Blackbirds nest in wooded areas along waterways. In fall and winter, they congregate in agricultural fields, feedlots, pastures, and grassland.

Food: Red-winged Blackbirds eat mainly insects in the summer and seeds, including corn and wheat, in the winter. Sometimes they feed by probing at the bases of aquatic plants with their slender bills, prying them open to get at insects hidden inside. In fall and winter they eat weedy seeds such as ragweed and cocklebur as well as native sunflowers and waste grains.

Behavior: Male Red-winged Blackbirds spend much of the breeding season sitting on a high perch over their territories and singing their hearts out. Females tend to slink through reeds and grasses collecting food or nest material. Both males and females defend nests from intruders and predators. Red-winged Blackbirds nest in loose groups in part because appropriate marshy habitat is scarce. Typically five or more (up to 15) females have to crowd their nests into any one male's territory. They typically mate with the territory holder, though many also mate with nearby males. In fall and winter, Red-winged Blackbirds flock with other blackbirds, grackles, cowbirds, and starlings, feeding on open ground and roosting in flocks of thousands or millions of birds. Red-winged Blackbirds are strong, agile fliers.

Conservation: Though they may be one of the most abundant native birds on the continent, Red-winged Blackbird populations declined by over 30% throughout most of their range between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 130 million, down from 190 million in 1974. 80% of the population spends part of the year in the U.S., 14% in Canada, and 16% in Mexico. The species rates an 8 is not on the

Color Pattern: Male Red-winged Blackbirds are hard to mistake. They're an even glossy black with red-and-yellow shoulder badges. Females are crisply streaked and dark brownish overall, paler on the breast and often show a whitish eyebrow.

Fun Facts

-> Different populations and subspecies of Red-winged Blackbirds vary markedly in size and proportions. An experiment was conducted that moved nestlings between populations and

found that the chicks grew up to resemble their foster parents. This study indicated that much of the difference seen between populations is the result of different environments rather than different genetic makeups.

-> The Red-winged Blackbird is a highly polygynous species, meaning males have many female mates – up to 15 in some cases. In some populations 90 percent of territorial males have more than one female nesting on their territories. But all is not as it seems: one-quarter to one-half of nestlings turn out to have been sired by someone other than the territorial male.

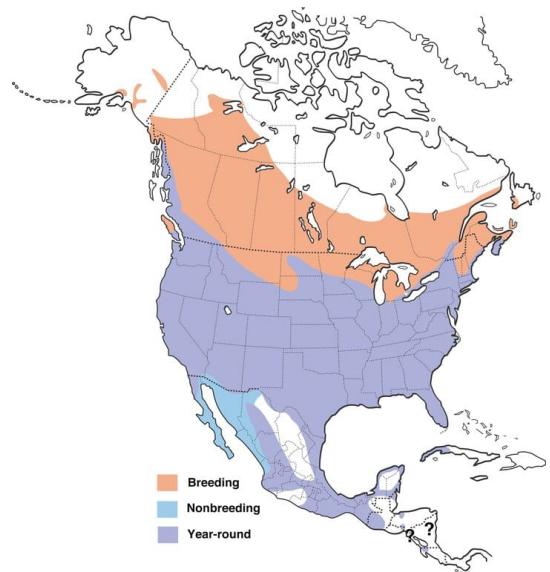
-> Male Red-winged Blackbirds fiercely defend their territories during the breeding season, spending more than a quarter of daylight hours in territory defense. He chases other males out of the territory and attacks nest predators, sometimes going after much larger animals, including horses and people.

-> Red-winged Blackbirds roost in flocks in all months of the year. In summer small numbers roost in the wetlands where the birds breed. Winter flocks can be congregations of several million birds, including other blackbird species and starlings. Each morning the roosts spread out, traveling as far as 50 miles to feed, then re-forming at night.

-> One California subspecies of the Red-winged Blackbird lacks the yellow borders to the red shoulders (epaulets) and has been dubbed the “bicolored blackbird.” Some scientists think this plumage difference may help Red-winged Blackbirds recognize each other where their range overlaps with the similar Tricolored Blackbird.

-> The oldest recorded Red-winged Blackbird was 15 years, 9 months old. It was banded in New Jersey in 1967, and found alive, but injured in Michigan in 1983. It was able to be released after recovering from its injuries.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding male (Red-winged)

Stocky, broad-shouldered blackbird with a slender, conical bill. Males have a red shoulder patch bordered in yellow.



Female (Red-winged)

Stocky, broad-shouldered blackbird with a slender, conical bill. Females are brown and heavily streaked overall with a yellowish wash around the bill.



Breeding male (Red-winged)

None



Female (Red-winged)
None



Nonbreeding male (Red-winged)
Nonbreeding males often look scaly and have incomplete red shoulder patches.



Breeding male (California Bicolored)
Males in California lack the yellow border on the red shoulder patch.



Female (California Bicolored)
Female birds in California often have more cinnamon tones to their feathers and dark undertail coverts with less streaking.



Breeding male (Mexican Bicolored)

Birds breeding in Mexico lack the yellow border to the red shoulder patch.



Breeding male (Red-winged)

Males spend much of the breeding season sitting on a high perch over their territories and singing their hearts out.



Breeding male (Red-winged)

Males display by holding their wings out to show off the red shoulder patches.



Female (Red-winged)
Breeds in wetlands.



Flock

Flocks in the thousands with other blackbirds, grackles, cowbirds, and starlings.

Western Meadowlark

Bird Characteristics

Scientific Name: *Sturnella neglecta*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Low Concern

Length: 6.3-10.2 in (16-26 cm)

Weight: 3.1-4.1 oz (89-115 g)

Wingspan: 16.1 in (41 cm)

Basic Description: The buoyant, flutelike melody of the Western Meadowlark ringing out across a field can brighten anyone's day. Meadowlarks are often more easily heard than seen, unless you spot a male singing from a fence post. This colorful member of the blackbird family flashes a vibrant yellow breast crossed by a distinctive, black, V-shaped band. Look and listen for these stout ground feeders in grasslands, meadows, pastures, and along marsh edges throughout the West and Midwest, where flocks strut and feed on seeds and insects.

Nesting Characteristics

Clutch Size: 5-6 eggs

Number of Broods: 1-2 broods

Egg Length: 1.0-1.3 in (2.5-3.3 cm)

Egg Width: 0.8-0.9 in (1.9-2.2 cm)

Incubation Period: 13-16 days

Nestling Period: 10-12 days

Egg Description: White profusely spotted with brown, rust, and lavender.

Condition at Hatching: Eyes closed, naked with pinkish orange skin and sparse pearl gray down along the spine and above the eyes.

Nest Placement: The female Western Meadowlark chooses a nest spot on the ground in

pasture, prairie or other grassland habitat. She seeks out a small dip or depression such as a cow footprint, often shielded by dense vegetation that can make the nest difficult to see.

Nest Description: Working alone, the female Western Meadowlark uses her bill to shape a depression in the soil into a cup-like shape, then lines the nest with soft, dry grasses and the pliable stems of shrubs. Although some nests are simple grass-lined bowls, Western Meadowlarks often use the vegetation around the nest cup as an anchor to create a hoodlike, waterproof dome over the nest by weaving together grass and shrub stems. When finished the nest is 7–8 inches across, with a cup that is 4–5 inches across and 2–3 inches deep. It can take 6–8 days for the female to build the season's first nest. As the parents move back and forth from the nest they create short "runways" into surrounding grasslands.

Bird Information

Habitat: Western Meadowlarks live in open grasslands, prairies, meadows, and some agricultural fields ranging from sea level to 10,000 feet. They avoid wooded edges and areas with heavy shrubs. In winter they forage for seeds on nearly bare ground, in contrast to the Eastern Meadowlark, which tends to feed in more vegetated areas.

Food: Western Meadowlarks eat both grain and weed seeds along with insects. They show a distinctly seasonal dietary pattern, foraging for grain during winter and early spring, and for weed seeds in the fall. In late spring and summer they probe the soil and poke beneath dirt clods and manure piles seeking beetles, ants, cutworms, grasshoppers, and crickets. As they forage, meadowlarks use a feeding behavior called "gaping"—inserting their bill in the soil or other substrate, and prying it open to access seeds and insects that many bird species can't reach. Western Meadowlarks occasionally eat the eggs of other grassland bird species. During hard winters, they may even feed at carcasses such as roadkill.

Behavior: Flocks of the stout-bodied Western Meadowlark forage along the ground in open fields, probing the soil for insects, grain and weed seeds. When taking to the air, they fly in brief, quail-like bursts, alternating rapid, stiff wingbeats with short glides. In spring, males establish territories and chase intruders away in "pursuit flights" that can last up to 3 minutes. You may see males competing over territorial boundaries perform a "jump flight," springing straight up into the air several feet and fluttering their wings over their back with their legs hanging limp below. Male Western Meadowlarks can spend up to a month establishing and defending a breeding territory before females arrive. Successful males typically mate with two females during the breeding season, bringing food to the nest once the chicks are hatched and noisily chasing intruders away. Western Meadowlarks are extremely sensitive to humans when nesting and will abandon a nest if they are disturbed while incubating their eggs.

Conservation: Although Western Meadowlarks are numerous, their breeding populations declined over 1% per year between 1966 and 2015, resulting in a cumulative decline of 48%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 85 million with 84% spending part of the year in the U.S., 25% in Mexico, and 9% in Canada. The species rates a 10 out of 20 on the Continental Concern

Score and is not on the

Color Pattern: Western Meadowlarks have yellow underparts with intricately patterned brown, black and buff upperparts. A black "V" crosses the bright yellow breast; it is gray in winter. Contrasting stripes of dark brown and light buff mark the head. The outer tail feathers flash white in flight.

Fun Facts

-> The nest of the Western Meadowlark usually is partially covered by a grass roof. It may be completely open, however, or it may have a complete roof and an entrance tunnel several feet long.

-> Although the Western Meadowlark looks nearly identical to the Eastern Meadowlark, the two species hybridize only very rarely. Mixed pairs usually occur only at the edge of the range where few mates are available. Captive breeding experiments found that hybrid meadowlarks were fertile, but produced few eggs that hatched.

-> The explorer Meriwether Lewis was the first to point out the subtle differences between the birds that would eventually be known as the Eastern and Western Meadowlarks, noting in June 1805 that the tail and bill shapes as well as the song of the Western Meadowlark differed from what was then known as the "oldfield lark" in the Eastern United States.

-> John James Audubon gave the Western Meadowlark its scientific name,

-> In 1914, California grain growers initiated one of the earliest studies of the Western Meadowlark's diet to determine whether the bird could be designated a pest species. Although they do eat grain, Western Meadowlarks also help limit numbers of crop-damaging insects.

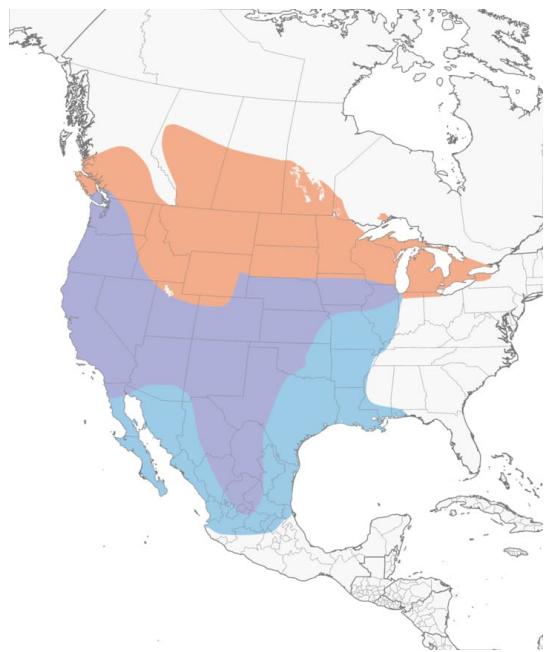
-> Like other members of the blackbird, or icterid, family, meadowlarks use a feeding behavior called "gaping," which relies on the unusually strong muscles that open their bill. They insert their bill into the soil, bark or other substrate, then force it open to create a hole. This gives meadowlarks access to insects and other food items that most birds can't reach.

-> The Western Meadowlark is the state bird of six states: Kansas, Montana, Nebraska, North Dakota, Oregon, and Wyoming. Only the Northern Cardinal is a more popular civic symbol, edging out the meadowlark by one state.

-> The oldest recorded Western Meadowlark was at least 6 years, 6 months old when it was found in Colorado.

-> A male Western Meadowlark usually has two mates at the same time. The females do all the incubating and brooding, and most of the feeding of the young.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding adult

Chunky, short-tailed grassland bird with a flat head, a long, slender bill, and a round-shouldered posture. Breeding adults have bright yellow underparts with a prominent black V on the chest.



Nonbreeding adult/immature

Chunky, short-tailed grassland bird with a flat head and a long, slender bill. Nonbreeding birds are heavily streaked above with pale yellow underparts and a faint brown V on the chest.



Adult

None



Breeding adult

Chunky grassland bird with round-shouldered posture. Note white outer tail feathers, most obvious in flight.



Nonbreeding adult/immature

Flat-headed grassland bird with a long, pointed bill. Note entirely yellow throat.



Nonbreeding adult/immature

Nonbreeding birds are paler yellow than breeding birds. Note paler head stripes and entirely yellow throat.



Habitat

Found in grasslands and agricultural fields.

Yellow-headed Blackbird

Bird Characteristics

Scientific Name: *Xanthocephalus xanthocephalus*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Low Concern

Length: 8.3-10.2 in (21-26 cm)

Weight: 1.6-3.5 oz (44-100 g)

Wingspan: 16.5-17.3 in (42-44 cm)

Basic Description: With a golden head, a white patch on black wings, and a call that sounds like a rusty farm gate opening, the Yellow-headed Blackbird demands your attention. Look for them in western and prairie wetlands, where they nest in reeds directly over the water. They're just as impressive in winter, when huge flocks seem to roll across farm fields. Each bird gleans seeds from the ground, then leapfrogs over its flock mates to the front edge of the ever-advancing troupe.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1 brood

Egg Length: 0.9-1.1 in (2.3-2.8 cm)

Egg Width: 0.7-0.8 in (1.7-1.9 cm)

Incubation Period: 12-13 days

Nestling Period: 7-14 days

Egg Description: Grayish to greenish white, splotched with brown, rufous, and pearl gray.

Condition at Hatching: Helpless, with eyes closed. Nestlings have pink skin covered with patches of tawny down, and their mouths are bright red and pink.

Nest Placement: The female chooses a nest site within a male's territory, always picking a spot

that overhangs the water. She affixes the nest to live or dead vegetation—usually cattails, bulrushes, or reeds, but sometimes willows, tamarisk, or wild rice.

Nest Description: The female builds the nest by herself. She weaves long strands of wet vegetation, collected from the surface of the water, around 4–5 upright stems. She adds more strands and more supports, and then an outer wall and an inner cup of the same materials. The outside of the nest is 5–6 inches across and about the same height, while the inside measures about 3 inches across and 2.5 inches deep.

Bird Information

Habitat: Yellow-headed Blackbirds breed in wetlands in prairies, mountain meadows, quaking aspen parklands, and shallow areas of marshes, ponds, and rivers. They nest in cattails, bulrushes, or reeds, often alongside nesting Red-winged Blackbirds. To forage, they may move to surrounding grasslands, croplands, or savanna. In winter, Yellow-headed Blackbirds join up by the thousands into large flocks and forage in crop fields, ranchlands, and farmyards from Arizona, New Mexico, and Texas through much of Mexico. The northernmost wintering populations are mostly males, while the southern ones are mostly females.

Food: Yellow-headed Blackbirds eat mostly insects in summer and seeds the rest of the year. They catch aquatic insects at the water's surface, including beetles, grasshoppers, dragonflies, caterpillars, flies, ants, and spiders. Outside of the breeding season they forage in uplands, eating grains and weed seeds. They form “rolling” flocks in farm fields, with individuals continually taking flight at the rear of the flock and landing at the front lines to feed. After establishing a foraging site, a flock will return to the same area repeatedly for several days. The blackbirds probe into soft ground and spread their bills to open up leaf sheaths or enlarge holes. They also flip over stones to unearth food.

Behavior: Males establish territories in deeper-water areas of marshes, often among cattails and bulrushes. Each breeding male attracts a harem of up to eight females that nest within his territory, which he defends from other males. This arrangement means that some males don't have any mates at all, particularly younger ones. Second-year males usually don't even secure a territory for themselves, and become “floaters” with no fixed place in the marsh. In some cases breeding birds forage only within their territory, but in other instances breeding is loosely colonial, with birds finding food outside of their own territories. Females defend a small area around the nest and frequently mate with males from neighboring territories when their own mate is absent. Yellow-headed Blackbirds seem to preferentially nest and forage near Forster's Terns when possible, cooperating with the terns to mob predators or give alarm calls. Yellow-headed Blackbirds displace smaller Red-winged Blackbirds and Marsh Wrens from prime nesting spots in a marsh. Their nest predators include gulls, magpies, Common Grackles, American Bitterns, American Coot, Marsh Wrens, rails, bull snakes, garter snakes, blue racers, mink, red foxes, raccoons, deer mice, and striped skunks.

Conservation: Yellow-headed Blackbirds are numerous and their populations are relatively stable in the long term, though they fluctuate considerably from year to year depending on

wetland conditions, rainfall, and droughts. The North American Breeding Bird Survey found that this species may have experienced a small decline between 1966 and 2014. Partners in Flight estimates a global breeding population of 11 million with 85% spending some part of the year in the U.S., 75% in Mexico, and 15% breeding in Canada. This U.S.-Canada Stewardship species rates a 9 out of 20 on the Continental Concern Score and is not on the

Color Pattern: Males are striking blackbirds with yellow heads and chests, and black bodies with prominent white patches at the bend of the wing. Females and immatures are brown instead of black, with duller yellow heads. Immature males show some white at the bend of the wing, while females don't.

Fun Facts

-> The Yellow-headed Blackbird often nests in the same marsh as the Red-winged Blackbird. The larger Yellow-headed Blackbird is dominant to the Red-winged Blackbird, and displaces the smaller blackbird from the prime nesting spots. The Yellow-headed Blackbird is strongly aggressive toward Marsh Wrens too, probably because of the egg-destroying habits of the wrens. When the Yellow-headed Blackbird finishes breeding and leaves the marsh, Marsh Wrens expand into former blackbird territories.

-> The male Yellow-headed Blackbird defends a small territory of prime nesting reeds. He may attract up to eight females to nest within his area. The male helps feed nestlings, but usually only in the first nest established in his territory. The other females have to feed their young all by themselves.

-> In 1825 Charles Lucien Bonaparte, nephew of Napoleon Bonaparte, gave the first detailed description of the Yellow-headed Blackbird, which was collected in 1820 by Thomas Say and Sir John Richardson.

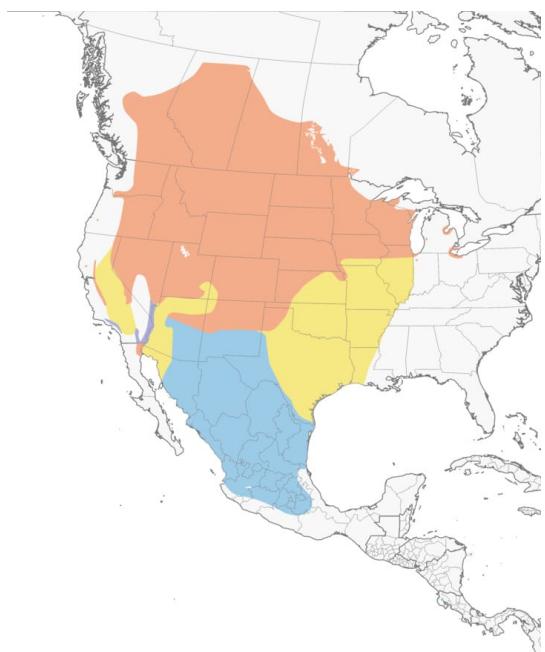
-> Because Yellow-headed Blackbirds always build their nests over the water, nestlings sometimes fall in and have to swim short distances to vegetation.

-> Pleistocene fossils of Yellow-headed Blackbirds (from 100,000 years ago) have been dug up in California, New Mexico, and Utah.

-> The Yellow-headed Blackbird's scientific name,

-> The oldest Yellow-headed Blackbird on record was at least 11 years, 8 months old. It had been banded in Saskatchewan and was found in Nebraska.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Large blackbird with a stout body, a large head, and a long, conical bill. Adult males have a bright yellow head and breast and a black body. Note white patch on wings, obvious in flight.



Female

Large blackbird with a big head. Females are brown instead of black, with a duller yellow head and breast.



Immature male

Immature males are brownish black above with a paler yellow head and

breast.



Female

Large, stocky bird with a conical bill. Females are brownish with a yellow throat and a patchy yellow head.



Juvenile

Juveniles have buffy heads and underparts with a buffy and black scalloped-looking back.



Adult male

Males sing a song that sounds like a rusty farm gate opening.



Adult male

In flight, note white patches at the bend in the wing.



Habitat

Breeds and roosts in freshwater wetlands with dense, emergent vegetation such as cattails. Often forages in fields, typically wintering in large, open agricultural areas.

Common Grackle

Bird Characteristics

Scientific Name: *Quiscalus quiscula*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Common Bird in Steep Decline

Length: 11.0-13.4 in (28-34 cm)

Weight: 2.6-5.0 oz (74-142 g)

Wingspan: 14.2-18.1 in (36-46 cm)

Basic Description: Common Grackles are blackbirds that look like they've been slightly stretched. They're taller and longer tailed than a typical blackbird, with a longer, more tapered bill and glossy-iridescent bodies. Grackles walk around lawns and fields on their long legs or gather in noisy groups high in trees, typically evergreens. They eat many crops (notably corn) and nearly anything else as well, including garbage. In flight their long tails trail behind them, sometimes folded down the middle into a shallow V shape.

Nesting Characteristics

Clutch Size: 1-7 eggs

Number of Broods: 1-2 broods

Egg Length: 1.0-1.3 in (2.5-3.3 cm)

Egg Width: 0.8-0.9 in (1.9-2.3 cm)

Incubation Period: 11-15 days

Nestling Period: 10-17 days

Egg Description: Light blue, pearl gray, white, or dark brown, usually spotted with brown.

Condition at Hatching: Blind and naked except for sparse brownish down; poorly coordinated, weighing just under a quarter-ounce.

Nest Placement: The female chooses the nest site, with the male sometimes following along

as she surveys. After beginning to build, females often seem to change their minds and select another site. Typically the nest is high in a coniferous tree between two vertical limbs or on a horizontal branch (although they've been recorded as low as 8 inches off the ground and in deciduous vegetation, cattails and other sites). Nests are often built near water. Rarely, Common Grackles nest in unusual places such as birdhouses, woodpecker holes, cliff crevices, barns, and still-occupied nests of Osprey and Great Blue Herons.

Nest Description: Females typically build the nest, with males sometimes helping or making repairs. The nest can take as little as a week to as long as six weeks to finish. It's a bulky cup made of twig, leaves, and grasses along with bits of paper, string, cloth, corn husks and other incidental materials. The female reinforces the nest cup with mud and then lines it with fine grasses and horse hair. The finished nest is 6-9 inches across, with an inside diameter of 3-5 inches and a depth of 3-9 inches.

Bird Information

Habitat: Common Grackles do well in human landscapes, using scattered trees for nesting and open ground for foraging. Typical natural habitats include open woodland, forest edge, grassland, meadows, swamps, marshes, and palmetto hammocks. They are also very common near agricultural fields and feedlots, suburbs, city parks, cemeteries, pine plantations, and hedgerows. Unbroken tracts of forest are the only places where you are unlikely to find Common Grackles.

Food: Common Grackles eat mostly seeds, particularly agricultural grains such as corn and rice. Other seeds include sunflower seeds, acorns, tree seeds such as sweetgum, wild and cultivated fruits, and garbage. In summer, one-quarter or more of a grackle's diet may be animals, including beetles, grasshoppers, caterpillars, spiders, crustaceans, mollusks, fish, frogs, salamanders, mice, and other birds.

Behavior: Common Grackles are large, noisy, and gregarious birds that often flock with other blackbirds, cowbirds, and starlings, especially in winter. At feeders they tower over other birds and push them aside to get at food. Grackles typically forage on the ground and roost high in trees or on power lines. Common Grackles sometimes nest in loose colonies of up to 200 pairs, showing little territoriality except in the immediate area of the nest. In spring when birds are pairing, you may see three kinds of playful chases: first, a group of males will fly after a slow-flying female; second, a single male will chase a female at high speed; and third, a male and female will fly slowly and conspicuously alongside each other. In normal flight, grackles fly in a direct path on stiff wingbeats.

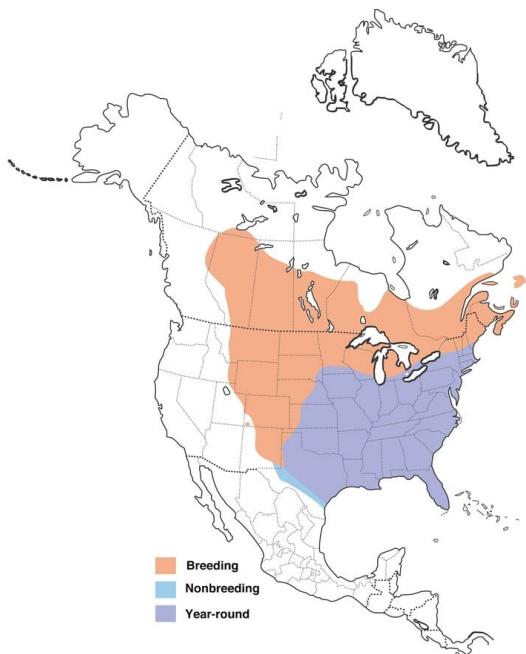
Conservation: Common Grackles are abundant and widespread, though populations declined by almost 2% per year between 1966 and 2014, resulting in a cumulative decline of 58%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 61 million, with 100% spending part of the year in the U.S., and 10% breeding in Canada. They rate an 8 out of 20 on the Continental Concern Score and the

Color Pattern: Common Grackles appear black from a distance, but up close their glossy purple heads contrast with bronzy-iridescent bodies. A bright golden eye gives grackles an intent expression. Females are slightly less glossy than males. Young birds are dark brown with a dark eye.

Fun Facts

- > Those raggedy figures out in cornfields may be called scarecrows.
- > Common Grackles are resourceful foragers. They sometimes follow plows to catch invertebrates and mice, wade into water to catch small fish, pick leeches off the legs of turtles, steal worms from American Robins, raid nests, and kill and eat adult birds.
- > Grackles have a hard keel on the inside of the upper mandible that they use for sawing open acorns. Typically they score the outside of the narrow end, then bite the acorn open.
- > You might see a Common Grackle hunched over on the ground, wings spread, letting ants crawl over its body and feathers. This is called anting, and grackles are frequent practitioners among the many bird species that do it. The ants secrete formic acid, the chemical in their stings, and this may rid the bird of parasites. In addition to ants, grackles have been seen using walnut juice, lemons and limes, marigold blossoms, chokecherries, and mothballs in a similar fashion.
- > In winter, Common Grackles forage and roost in large communal flocks with several different species of blackbird. Sometimes these flocks can number in the millions of individuals.
- > Rarely, Common Grackles nest in places other than their usual treetops, including birdhouses, old woodpecker holes, barns, and in still-occupied nests of Osprey and Great Blue Heron.
- > The oldest recorded Common Grackle was a male, and at least 23 years old when he was killed by a raptor in Minnesota.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large, lanky blackbirds with long legs, a long tail, and a long and heavy bill. Adult males appear dark overall, but have an iridescent bluish head and bronzy body in good light.



Female

Lanky blackbird with a long tail and heavy, long bill. Females are slightly less glossy than males.



Adult male

Struts on long legs, pecking for food rather than scratching.



Adult male

Noisy and conspicuous blackbird with a long tail.



Female (Purple form)

Females of the purple form can be similarly colored to males, but note the shorter tail that lacks a paddle shape.



Female (Bronze form)

Females can be very dark, notably those of the bronze form.



Juvenile

Lanky blackbird with a long tail and hefty bill. Immatures are brownish overall, with a dark eye, and less glossy than adults.



Juvenile

None



Adult male

Found in agricultural fields, feedlots, city parks, and suburban lawns. They're also common in open habitats including woodland, forest edges, meadows, and marshes.

Brown-headed Cowbird

Bird Characteristics

Scientific Name: *Molothrus ater*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Low Concern

Length: 7.5-8.7 in (19-22 cm)

Weight: 1.5-1.8 oz (42-50 g)

Wingspan: 14.2 in (36 cm)

Basic Description: The Brown-headed Cowbird is a stocky blackbird with a fascinating approach to raising its young. Females forgo building nests and instead put all their energy into producing eggs, sometimes more than three dozen a summer. These they lay in the nests of other birds, abandoning their young to foster parents, usually at the expense of at least some of the host's own chicks. Once confined to the open grasslands of middle North America, cowbirds have surged in numbers and range as humans built towns and cleared woods.

Nesting Characteristics

Clutch Size: 1-7 eggs

Egg Length: 0.7-1.0 in (1.8-2.5 cm)

Egg Width: 0.6-0.7 in (1.5-1.8 cm)

Incubation Period: 10-12 days

Nestling Period: 8-13 days

Egg Description: White to grayish-white with brown or gray spots.

Condition at Hatching: Naked except for sparse tufts of down, eyes closed, clumsy. Cowbird chicks tend to grow faster than their nestmates, allowing them to get more attention and food from their foster parents.

Nest Placement: Cowbirds lay eggs in a great variety of nests, including Red-winged Blackbird nests in marshes, dome-shaped Ovenbird nests on the forest floor, cup nests in shrubs and

treetops, and even occasionally in nests in tree cavities. Over 140 host species of the Brown-headed Cowbird have been described, from birds as small as kinglets to as large as meadowlarks. Common hosts include the Yellow Warbler, Song and Chipping sparrows, Red-eyed Vireo, Eastern and Spotted towhees, and Red-winged Blackbird.

Nest Description: Doesn't build its own nest. Experiments done with artificial nests in an aviary suggest that Brown-headed Cowbirds tend to choose nests containing eggs of smaller volume than their own.

Bird Information

Habitat: Brown-headed Cowbirds occur in grasslands with low and scattered trees as well as woodland edges, brushy thickets, prairies, fields, pastures, orchards, and residential areas. Brown-headed Cowbirds generally avoid forests. Development and fragmentation of forests in the eastern United States have allowed Brown-headed Cowbirds to greatly expand their range eastward. In winter, Brown-headed Cowbirds roost along with several species of blackbirds in flocks numbering more than 100,000 birds.

Food: Brown-headed Cowbirds feed mostly on seeds from grasses and weeds, with some crop grains. Insects such as grasshoppers and beetles, often caught as cows and horses stir them into movement, make up about a quarter of a cowbird's diet. As you might imagine, female cowbirds have a large calcium requirement from laying so many eggs. To satisfy it, they eat snail shells and sometimes eggs taken from nests they've visited.

Behavior: Brown-headed Cowbirds usually forage on the ground in mixed flocks of blackbirds, grackles, and starlings. They get their name from their close association with grazing livestock (and formerly bison), which flush up insects for the birds to eat. Cowbirds fly directly, with constant wingbeats. When males sing, they often raise their back and chest feathers, lift their wings and spread their tail feathers, and then bow forward. Groups of males may do this together. Female Brown-headed Cowbirds don't build a nest or rear young. They find nests by watching quietly for signs of other birds building nests, or they flutter through vegetation trying to flush birds from their nests. When young cowbirds hatch, they may roll the other eggs out of the nest.

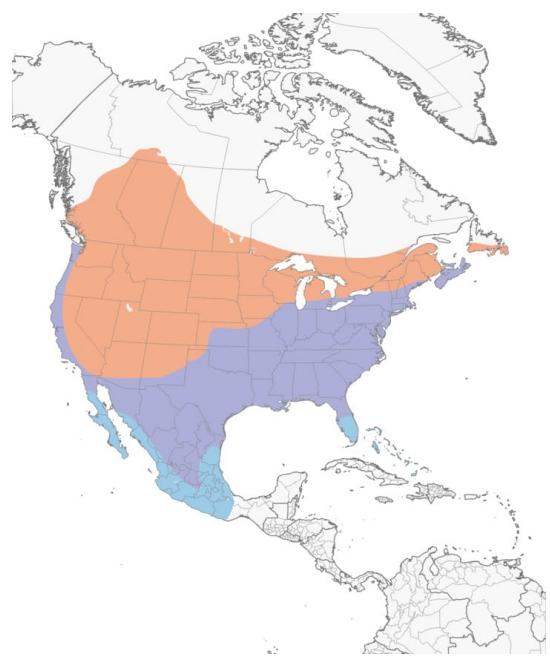
Conservation: Brown-headed Cowbird are common across most of North America, although populations slightly declined by about 31% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 120 million, with 77% spending some part of the year in the U.S., 14% in Canada, and 31% in Mexico. They rate an 7 out of 20 on the Continental Concern Score and are not on the

Color Pattern: Male Brown-headed Cowbirds have glossy black plumage and a rich brown head that often looks black in poor lighting or at distance. Female Brown-headed Cowbirds are plain brown birds, lightest on the head and underparts, with fine streaking on the belly and a dark eye.

Fun Facts

- > The Brown-headed Cowbird is North America's most common "brood parasite." A female cowbird makes no nest of her own, but instead lays her eggs in the nests of other bird species, who then raise the young cowbirds.
- > Social relationships are difficult to figure out in birds that do not build nests, but male and female Brown-headed Cowbirds are not monogamous. Genetic analyses show that males and females have several different mates within a single season.
- > Brown-headed Cowbird lay eggs in the nests of more than 220 species of birds. Recent genetic analyses have shown that most individual females specialize on one particular host species.
- > Some birds, such as the Yellow Warbler, can recognize cowbird eggs but are too small to get the eggs out of their nests. Instead, they build a new nest over the top of the old one and hope cowbirds don't come back. Some larger species puncture or grab cowbird eggs and throw them out of the nest. But the majority of hosts don't recognize cowbird eggs at all.
- > Cowbird eggs hatch faster than other species eggs, giving cowbird nestlings a head start in getting food from the parents. Young cowbirds also develop at a faster pace than their nest mates, and they sometimes toss out eggs and young nestlings or smother them in the bottom of the nest.
- > In winter, Brown-headed Cowbirds may join huge roosts with several blackbird species. One such mixed roost in Kentucky contained more than five million birds.
- > The oldest recorded Brown-headed Cowbird was a male, and at least 16 years 11 months old when it was recaptured and rereleased during banding operations in Wisconsin.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Chunky blackbird with a thick, conical bill. Adult males have black bodies and brown heads, which can appear all black in poor light.



Female

Stocky blackbird with a short tail and a thick, conical bill. Female Brown-headed Cowbirds are plain brown, lightest on the head and underparts, with fine streaking on the belly and a dark eye.



Juvenile

Juveniles are brown overall with a scaly-looking back and streaked

underparts.



Immature male

Immature males molting into adult plumage are patchy brown and black.



Juvenile (with Chipping Sparrow)

Lays eggs in the nest of other birds, which raise cowbird young. Here a Chipping Sparrow feeds a juvenile cowbird as if it were her own.



Adult male

None



Adult male
None



Female
None



Adult male
Highly gregarious. Males often raise their back and chest feathers, lift their wings, spread their tail feathers, and bow forward when singing.



Adult male and female
Found in open habitats such as fields, pastures, meadows, forest edges, and lawns. When not displaying or feeding on the ground, they often perch

high on prominent tree branches.



Habitat

None

Baltimore Oriole

Bird Characteristics

Scientific Name: *Icterus galbula*

Order: Passeriformes

Family Name: Icteridae

Conservation Status: Low Concern

Length: 6.7-7.5 in (17-19 cm)

Weight: 1.1-1.4 oz (30-40 g)

Wingspan: 9.1-11.8 in (23-30 cm)

Basic Description: The rich, whistling song of the Baltimore Oriole, echoing from treetops near homes and parks, is a sweet herald of spring in eastern North America. Look way up to find these singers: the male's brilliant orange plumage blazes from high branches like a torch. Nearby, you might spot the female weaving her remarkable hanging nest from slender fibers. Fond of fruit and nectar as well as insects, Baltimore Orioles are easily lured to backyard feeders.

Nesting Characteristics

Clutch Size: 3-7 eggs

Number of Broods: 1 brood

Egg Length: 0.8-1.0 in (2.1-2.5 cm)

Egg Width: 0.6-0.7 in (1.5-1.7 cm)

Incubation Period: 11-14 days

Nestling Period: 11-14 days

Egg Description: Pale grayish or bluish white blotched with brown, black, or lavender.

Condition at Hatching: Helpless, eyes closed, with sparse white down.

Nest Placement: The female chooses a nest site within the territory defended by her mate. She anchors the nest firmly to a fork in the slender upper branches of a tree. Baltimore Orioles

often nest in American elms, but will build in other trees, especially maples and cottonwoods. The distinctive nest usually hangs below a branch, but is sometimes anchored along a vertical tree trunk.

Nest Description: Baltimore Orioles build remarkable, sock-like hanging nests, woven together from slender fibers. The female weaves the nest, usually 3 to 4 inches deep, with a small opening, 2 to 3 inches wide, on top and a bulging bottom chamber, 3 to 4 inches across, where her eggs will rest. She anchors her nest high in a tree, first hanging long fibers over a small branch, then poking and darting her bill in and out to tangle the hank. While no knots are deliberately tied, soon the random poking has made knots and tangles, and the female brings more fibers to extend, close, and finally line the nest. Construction materials can include grass, strips of grapevine bark, wool, and horsehair, as well as artificial fibers such as cellophane, twine, or fishing line. Females often recycle fibers from an old nest to build a new one. Males occasionally bring nesting material, but don't help with the weaving. Building the nest takes about a week, but windy or rainy weather may push this as long as 15 days. The nest is built in three stages: first, the female weaves an outer bowl of flexible fibers to provide support. Next, springy fibers are woven into an inner bowl, which maintains the bag-like shape of the nest. Finally, she adds a soft lining of downy fibers and feathers to cushion the eggs and young.

Bird Information

Habitat: On their breeding grounds in eastern and east-central North America, you'll most often find Baltimore Orioles high in leafy deciduous trees, but not in deep forests; they prefer open woodland, forest edge, river banks, and small groves of trees. They also forage for insects and fruits in brush and shrubbery. Baltimore Orioles have adapted well to human settlement and often feed and nest in parks, orchards, and backyards. On their winter range in Central America, Baltimore Orioles occupy open woodlands, gardens, and shade-grown coffee and cacao plantations. They frequently visit flowering trees and vines in search of fruit and nectar.

Food: Baltimore Orioles eat insects, fruit, and nectar. The proportion of each food varies by season: in summer, while breeding and feeding their young, much of the diet consists of insects, which are rich in the proteins needed for growth. In spring and fall, nectar and ripe fruits compose more of the diet; these sugary foods are readily converted into fat, which supplies energy for migration. Baltimore Orioles eat a wide variety of insects, including beetles, crickets, grasshoppers, moths, and flies, as well as spiders, snails, and other small invertebrates. They eat many pest species, including tent caterpillars, gypsy moth caterpillars, fall webworms, spiny elm caterpillars, and the larvae within plant galls. However, orioles can also damage fruit crops, including raspberries, mulberries, cherries, oranges and bananas, and some fruit growers consider these birds a pest.

Behavior: Baltimore Orioles are agile feeders that comb the high branches of trees in search of insects, flowers and fruit. They are acrobatic foragers, clambering across twigs, hanging upside down, and fluttering to extend their reach. They also fly out from perches to snatch insects out of the air. Because they forage in the treetops, they are more often seen than

heard, but males often sing from conspicuous posts at the tops of trees, where their blazing orange breast attracts the eye. Both males and females may be glimpsed fluttering among the leaves, and come readily to bird feeders supplied with fruit or nectar. Many other birds defend large feeding territories, but orioles defend only the space near their nests, and so you may see several neighboring orioles feeding close to each other. When courting, the male displays by hopping around the female, bowing forward and spreading his wings to reveal his orange back. A receptive female responds by fanning her tail, lowering and fluttering her wings, and making a chattering call.

Conservation: Baltimore Oriole populations have been declining throughout their range with Canada experiencing over a 3 percent loss per year (resulting in a cumulative loss of 24 percent) between 1966 and 2010, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 12 million, with 82 percent spending part of the year in the U.S., 18 percent breeding in Canada, and 24 percent wintering in or migrating through Mexico. They rate a 10 out of 20 on the Continental Concern Score and are not on the 2012 Watch List. Because they breed in North America and winter in Central and South America, Baltimore Orioles are vulnerable to deforestation and habitat loss in many nations; their conservation requires international cooperation. Spraying insecticides onto trees not only kills off Baltimore Orioles' insect food, but may poison the birds directly. Orioles and many other songbirds migrate at night, when they can become disoriented by lights or rainstorms and crash into tall structures such as skyscrapers and radio towers.

Color Pattern: Adult males are flame-orange and black, with a solid-black head and one white bar on their black wings. Females and immature males are yellow-orange on the breast, grayish on the head and back, with two bold white wing bars.

Fun Facts

-> Unlike robins and many other fruit-eating birds, Baltimore Orioles seem to prefer only ripe, dark-colored fruit. Orioles seek out the darkest mulberries, the reddest cherries, and the deepest-purple grapes, and will ignore green grapes and yellow cherries even if they are ripe.

-> The Baltimore Oriole hybridizes extensively with the Bullock's Oriole where their ranges overlap in the Great Plains. The two species were considered the same for a while and called the Northern Oriole, but in the 1990s, after genetic studies, they were separated again.

-> Young male Baltimore Orioles do not molt into bright-orange adult plumage until the fall of their second year. Still, a few first-year males in drab, female-like plumage succeed in attracting a mate and raising young. Females become deeper orange with every molt; some older females are almost as bright orange as males.

-> The orioles of the Americas were named after similar-looking birds in the Old World, but the two groups are not closely related. Orioles of the Old World are in the family Oriolidae, whereas American orioles are in the same family as blackbirds and meadowlarks. Both New and Old World orioles are brightly colored with red, yellow, and black; have long tails and long pointed bills; build hanging, woven nests; and prefer tall trees around open areas.

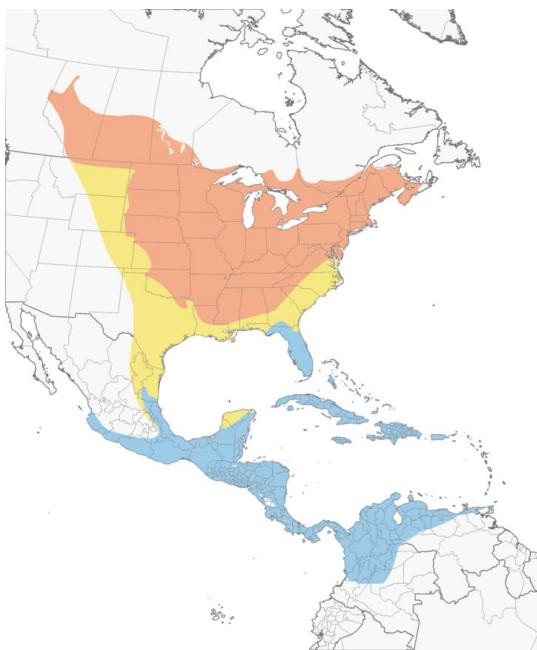
-> Baltimore Orioles got their name from their bold orange-and-black plumage: they sport the

same colors as the heraldic crest of England's Baltimore family (who also gave their name to Maryland's largest city).

-> Baltimore Orioles sometimes use their slender beaks to feed in an unusual way, called "gaping": they stab the closed bill into soft fruits, then open their mouths to cut a juicy swath from which they drink with their brushy-tipped tongues.

-> The oldest recorded Baltimore Oriole was over 12 years old when it was caught and killed by a raptor in Minnesota.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Medium-sized, sturdy-bodied songbird with a thick neck, long legs, and pointed bill. Adult males have an entirely black head and back with an orange rump and orange outer tail feathers.



Adult female

Thick-necked songbird with a long, pointed bill. Adult female plumage is highly variable ranging from a brownish to yellowish head and back. Note yellow tail and yellow undertail coverts.



Adult female

Female plumage is highly variable. Some have brownish heads and backs. Note yellow tail and undertail coverts.



Immature female

Immature females have a grayish back with faint streaking and a pale yellow wash on the head and breast. Note yellow tail.



Female/immature male

None



Adult male

Flashes yellowish to orange outer tail feathers in flight.



Adult male

Found in open woodland, forest edge, orchards, and stands of trees along rivers, in parks, and in backyards.



Female

None



Adult male

Often visits fruit feeders. Note orangish outer tail feathers and black hood.

Red Crossbill

Bird Characteristics

Scientific Name: *Loxia curvirostra*

Order: Passeriformes

Family Name: Fringillidae

Conservation Status: Low Concern

Basic Description: None

Nesting Characteristics

Clutch Size: 2-6 eggs

Egg Description: undefined

Condition at Hatching: undefined

Nest Placement: Nests, built mostly by the female, are usually sited in open rather than dense woodlands; nests are built inside dense foliage, on branches, next to or near the trunk, up to about 70 feet above the ground.

Nest Description: Bulky cup nests are built largely of conifer twigs, with the cup lined with grasses, weeds, seed-pod fibers, lichens, conifer needles, feathers, bark, or hair. Nests average about 9 inches across, and 2 inches tall, with the inner cup 2.4 inches across and 1 inch deep.

Bird Information

Habitat: Red Crossbills favor mature coniferous forests, especially spruce, pine, Douglas-fir, hemlock, or larch with recent cone crops. Although Red Crossbills mostly breed south of the forests of spruce, fir, and larch where White-winged Crossbills breed most abundantly, the two species forage together in white spruce and Engelmann spruce forests in late summer, when cone crops are extensive. In North America, Red Crossbill comprises at least 11 different "types" (distinguished in the field by their flight calls), many of which specialize on particular species of conifer. For example, the small-billed type 3 favors western hemlock, which has very small cones, whereas the largest-billed type 6, found in the Southwest, feeds on larger-coned

pine species. Birders have begun to make audio and video recordings of Red Crossbill, both to identify the type involved and to identify the species of conifer in which they feed.

Food: Red Crossbills eat seeds of spruce, pine, Douglas-fir, hemlock, or larch. To obtain these seeds, they first grasp the cone with one foot (normally, the foot that is on the side opposite to which the lower mandible crosses). They insert the partly open bill between two of the cone's scales, then close the bill, which widens the space between the scales, exposing the seed. They use the tongue and bill together to remove the seed. When feeding on closed cones of spruce, hemlock, and Douglas-fir, crossbills usually remove the cone from the branch, but if these cones are open, they leave them attached to the branch, as they do with almost all pine cones. Occasionally, they forage on fallen cones on the ground. Before swallowing the seed, they remove the seed coat. Important tree species for Red Crossbill include eastern white pine, pitch pine, Table Mountain pine, loblolly pine, lodgepole pine, red pine, ponderosa pine, Sitka spruce, Engelmann spruce, red spruce, black spruce, white spruce, western hemlock, eastern hemlock, Douglas-fir, and western larch. They sometimes eat seeds of birch and alder species, as well as box elder, along with many kinds of insects in early summer.

Behavior: Red Crossbills are social throughout the year, even during the nesting season, when pairs often nest close to each other in areas where cone crops are heavy. Nesting can commence at any time, but in North America, most Red Crossbills breed in late summer through early autumn and/or in late winter through early spring. In spring, when most songbirds begin to nest, many conifer seeds have not yet developed or become available, and so the later timing of Red Crossbill nesting seasons coincides with periods of greatest food availability. Males do not defend large territories, but they do have favored perches for singing and for making flapping-gliding flight displays, and they do chase other males that approach too closely. Between adult males, conflicts over cones, including threat displays, chases, and attacks, are not uncommon. Males often chase females when in search of a partner, and billing (touching bills together rapidly) and courtship feeding by the male help establish the pair bond. Males stay close to their partners during the nesting season, and partners select the nest site together. Red Crossbills appear to be monogamous in their mating system, and pairs sometimes raise two broods in a single nesting season when food is abundant. Both parents incubate the eggs and feed the young. When feeding, flocks of Red Crossbills move through woodlands with what seems a "nervous" energy, flying and calling as they go from tree to tree. Some scientists have speculated that their contact calls convey information about the quality of feeding conditions in each tree—perhaps the accessibility of seeds, seed size, or other information. Calling in such contexts would improve the flock's feeding efficiency, allowing them to pass over the inferior cones quickly for the better ones. During irruption periods, when flocks migrate long distances, observers often report this apparently restless behavior, as the crossbills try to locate food in unfamiliar environments.

Conservation: Red Crossbill populations have declined by an estimated 12% since 1970, according to

Color Pattern: None

Fun Facts

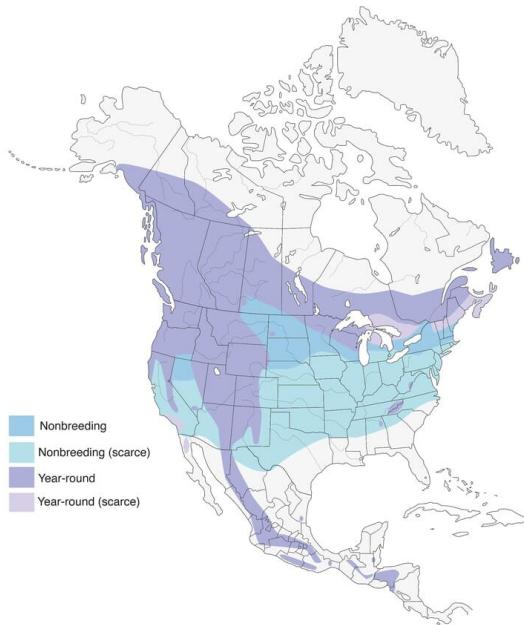
-> One of the great puzzles of bird classification is where to draw the line between species. Red Crossbills of the many “types” now described are especially puzzling because these birds do not conform well to the usual concepts of “species” and “subspecies.” Unlike many subspecies, the different types of Red Crossbills wander widely, sometimes joining up with other crossbill types. Even so, interbreeding between types appears to be very limited, suggesting that the types may be on their way to becoming full species.

-> The Red Crossbill is so dependent upon conifer seeds it even feeds them to its young. Consequently, it can breed anytime it finds a sufficiently large cone crop, even in the depths of winter.

-> A crossbill's odd bill shape helps it get into tightly closed cones. A bird's biting muscles are stronger than the muscles used to open the bill, so the Red Crossbill places the tips of its slightly open bill under a cone scale and bites down. The crossed tips of the bill push the scale up, exposing the seed inside.

-> The oldest recorded Red Crossbill was a male, and at least 8 years old when he was recaptured and rereleased during banding operations in Idaho in 2014. He had been banded in the same state in 2007.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Medium-sized finch with a crisscrossed bill. Adult males are red overall with darker brownish-red wings (some individuals may show wingbars).



Female

Full-bodied finch with a crisscrossed bill. Females are yellowish with dark unmarked wings.



Adult male

None



Juvenile

Juveniles are heavily streaked overall with thin buffy wingbars, which can be hard to see depending on position of the bird.



Immature male

Immature males are a patchy mix of red and orangish yellow feathers as they molt into adult plumage. Note dark unmarked wings and tail.



Female/immature

None



Adult male

None



Female

Uses its crisscrossed bill to extract seeds from pine cones. Females are yellowish overall.



Juvenile

None



Adult male

None



Flock
None



Flock
Moves in large nomadic flocks in search of good cone crops.



Habitat
Found in mature evergreen forests with large cone crops. Feeds on seeds from spruce, Douglas-fir, eastern and western hemlock, or pine trees.

American Goldfinch

Bird Characteristics

Scientific Name: *Spinus tristis*

Order: Passeriformes

Family Name: Fringillidae

Conservation Status: Low Concern

Length: 4.3-5.1 in (11-13 cm)

Weight: 0.4-0.7 oz (11-20 g)

Wingspan: 7.5-8.7 in (19-22 cm)

Basic Description: This handsome little finch, the state bird of New Jersey, Iowa, and Washington, is welcome and common at feeders, where it takes primarily sunflower and nyjer. Goldfinches often flock with Pine Siskins and Common Redpolls. Spring males are brilliant yellow and shiny black with a bit of white. Females and all winter birds are more dull but identifiable by their conical bill; pointed, notched tail; wingbars; and lack of streaking. During molts they look bizarrely patchy.

Nesting Characteristics

Clutch Size: 2-7 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.7 in (1.62-1.69 cm)

Egg Width: 0.5-0.5 in (1.22-1.28 cm)

Incubation Period: 12-14 days

Nestling Period: 11-17 days

Egg Description: Pale bluish white, sometimes with small faint brown spots around large end.

Condition at Hatching: Helpless, with wisps of grayish down.

Bird Information

Habitat: Weedy fields, open floodplains, and other overgrown areas, particularly with sunflower, aster, and thistle plants for food and some shrubs and trees for nesting. Goldfinches are also common in suburbs, parks, and backyards.

Food: Goldfinches eat seeds almost exclusively. Main types include seeds from composite plants (in the family Asteraceae: sunflowers, thistle, asters, etc.), grasses, and trees such as alder, birch, western red cedar, and elm. At feeders prefers nyjer and sunflower.

Behavior: American Goldfinches are active, acrobatic finches that balance on the seedheads of thistles, dandelions, and other plants to pluck seeds. They have a bouncy flight during which they frequently make their

Conservation:

Color Pattern: Adult males in spring and early summer are bright yellow with black forehead, black wings with white markings, and white patches both above and beneath the tail. Adult females are duller yellow beneath, olive above. Winter birds are drab, unstreaked brown, with blackish wings and two pale wingbars.

Fun Facts

-> American Goldfinches are unusual among goldfinches in molting their body feathers twice a year, once in late winter and again in late summer. The brightening yellow of male goldfinches each spring is one welcome mark of approaching warm months.

-> American Goldfinches breed later than most North American birds. They wait to nest until June or July when milkweed, thistle, and other plants have produced their fibrous seeds, which goldfinches incorporate into their nests and also feed their young.

-> Goldfinches are among the strictest vegetarians in the bird world, selecting an entirely vegetable diet and only inadvertently swallowing an occasional insect.

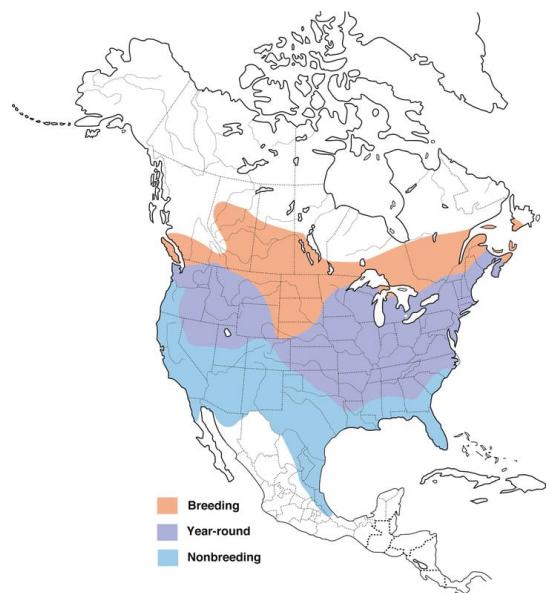
-> When Brown-headed Cowbirds lay eggs in an American Goldfinch nest, the cowbird egg may hatch but the nestling seldom survives longer than three days. The cowbird chick simply can't survive on the all-seed diet that goldfinches feed their young.

-> Goldfinches move south in winter following a pattern that seems to coincide with regions where the minimum January temperature is no colder than 0 degrees Fahrenheit on average.

-> Paired-up goldfinches make virtually identical flight calls; goldfinches may be able to distinguish members of various pairs by these calls.

-> The oldest known American Goldfinch was 10 years 9 months old when it was recaptured and rereleased during a banding operation in Maryland.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding male

Small finch with a short, conical bill and a short, notched tail. Breeding males are bright yellow with black forehead, black wings with white markings.



Nonbreeding male

Small finch with a conical bill and notched tail. Nonbreeding males are a drab, unstreaked brown, with blackish wings and two pale wingbars.



Breeding female

Breeding females are duller yellow beneath and more olive above than

breeding males.



Immature

Immatures are brown above and pale yellow below, shading to buff on the sides. Two buffy wingbars mark their dark wings.



Molting male

None



Female/immature

Females/immatures are pale yellow below and don't have streaked underparts.



Breeding male

Breeding males have a black forehead, a yellow back, and black-and-white wings. Some males have more white-tipped (worn) feathers on their wings than others.



None

None



Breeding female

None



Molting male

None



Breeding male
None



Male and female
Balances on the seedheads of thistles, dandelions, and other plants to pluck seeds.



Adult and juvenile
None



Flock

Frequently feeds in flocks at sunflower and nyjer seed feeders.

Evening Grosbeak

Bird Characteristics

Scientific Name: *Coccothraustes vespertinus*

Order: Passeriformes

Family Name: Fringillidae

Conservation Status: Declining

Length: 6.3-7.1 in (16-18 cm)

Weight: 1.9-2.6 oz (53-74 g)

Wingspan: 11.8-14.2 in (30-36 cm)

Basic Description: A heavyset finch of northern coniferous forests, the Evening Grosbeak adds a splash of color to winter bird feeders every few years, when large flocks depart their northern breeding grounds en masse to seek food to the south. The yellow-bodied, dusky-headed male has an imposing air thanks to his massive bill and fierce eyebrow stripe. The female is more subtly marked, with golden highlights on her soft gray plumage. This declining species is becoming uncommon, particularly in the eastern United States.

Nesting Characteristics

Clutch Size: 2-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.8-1.0 in (2-2.6 cm)

Egg Width: 0.6-0.7 in (1.4-1.8 cm)

Incubation Period: 12-14 days

Nestling Period: 13-14 days

Egg Description: Light blue to blue-green with brown or purplish blotches.

Condition at Hatching: Helpless, with eyes closed and dark skin partly covered with white down.

Nest Placement: Evening Grosbeaks nest high in trees or large shrubs, such as red spruce,

black spruce, Norway spruce, white spruce, Engelmann spruce, white pine, Jeffrey pine, ponderosa pine, jack pine, balsam fir, Douglas-fir, white cedar, paper birch, beech, sugar maple, and willow. It's unknown whether male or female Evening Grosbeaks choose the nest sites (although in the closely related Hawfinch of Eurasia, the male selects the site).

Nest Description: The female does most of the nest building, collecting materials from the ground and breaking twigs from trees. She builds a flimsy, saucer-shaped nest of small twigs and roots lined with grasses, fine rootlets, lichens, or pine needles. The nest measures about 5 inches across and 5 inches high, with the inner cup measuring about 3 inches across and 1 inch deep.

Bird Information

Habitat: Evening Grosbeaks breed in mature and second-growth coniferous forests of northern North America and the Rocky Mountains, including spruce-fir, pine-oak, pinyon-juniper, and aspen forests. Less commonly, they nest in deciduous woodlands, parks, and orchards. They breed as far south as Mexico at 5,000–10,000 feet of elevation in pine and pine-oak woodlands. In winter Evening Grosbeaks live in coniferous forest and deciduous forest as well as in urban and suburban areas. When wintering in urban environments they are most abundant in small woodlots near bird feeders.

Food: In summer, Evening Grosbeaks eat mostly invertebrates such as spruce budworm larvae, caterpillars, and aphids. They also eat a wide variety of seeds—including those of maple, box elder, ash, cherry, apple, tulip poplar, elm, pine, dock, bindweed, and goosefoot—and small fruits, such as ash fruits, cherries, crabapples, snowberries, hawthorn fruits, Russian olive fruits, and juniper berries. They may manipulate fleshy fruits such as cherries in their bills to remove the skin and flesh before cracking and swallowing the seed. Evening Grosbeaks typically feed at the tops of trees and shrubs, but you may see them come to the ground for fallen fruits and seeds or capture aerial insects in flight. They also eat the buds of maple, elm, willow, oak, aspen, and cherry, and drink maple sap by breaking off small maple twigs.

Behavior: Evening Grosbeaks are social birds that forage in flocks in winter and break off into small groups or pairs during the breeding season. Evening Grosbeaks show little aggression toward one another throughout the year. At winter feeders males may drive females and younger males away, but they do not defend feeding territories during the breeding season—probably because their food sources are often extremely abundant in local patches. During the nesting season they form monogamous pairs, after courting quietly without any elaborate song or display. Breeding birds tolerate other birds nearby but occasionally chase away species such as phoebes, Hairy Woodpeckers, American Robins, and Brown-headed Cowbirds. At feeders, Evening Grosbeaks are often accompanied by redpolls and Pine Siskins that glean the food scraps they leave behind.

Conservation: Evening Grosbeaks are numerous and widespread, but populations dropped steeply between 1966 and 2015, according to the North American Breeding Bird Survey—

particularly in the East where numbers declined by 97% during that time. Partners in Flight estimates a global breeding population of 4.1 million, with 71% spending some part of the year in the U.S., 57% in Canada, and 5% living in Mexico. Evening Grosbeak rates a 13 out of 20 on the Continental Concern Score and is on the

Color Pattern: Adult male Evening Grosbeaks are yellow and black birds with a prominent white patch in the wings. They have dark heads with a bright-yellow stripe over the eye. Females and immatures are mostly gray, with white-and-black wings and a greenish-yellow tinge to the neck and flanks. The bill is pale ivory on adult males and greenish-yellow on females.

Fun Facts

-> The Evening Grosbeak is a songbird without a song—that is, it does not seem to use any complex sounds to attract a mate or defend its territory. It does have a small repertoire of simple calls, including sweet, piercing notes and burry chirps.

-> With their enormous bills, Evening Grosbeaks can crush seeds that are too large for Common Redpolls and Pine Siskins to open. These smaller birds often seek out the grosbeaks and glean the food scraps they leave behind.

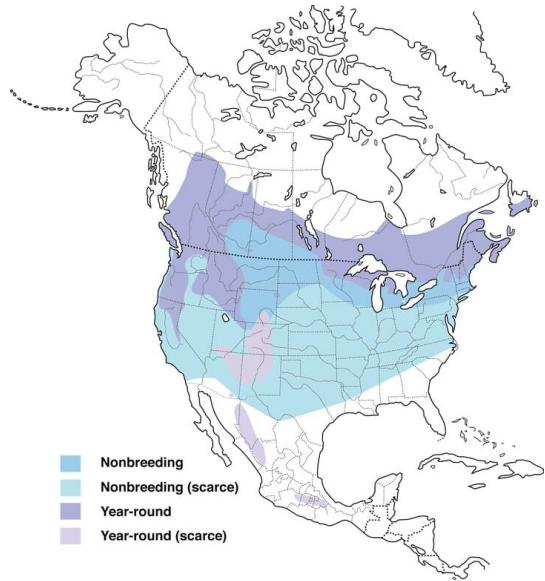
-> Though they're ferocious seed-crackers in the wintertime, in summer Evening Grosbeaks eat insects such as spruce budworm, a serious forest pest. The grosbeaks are so adept at finding these tiny caterpillars that the birds often provide a first warning that a budworm outbreak has begun.

-> In the mid-1800s, Evening Grosbeaks were uncommon to rare east of the Rockies, but then they began moving eastward with each winter migration, reaching Rhode Island in the winter of 1910–1911. By the 1920s they were considered a regular winter visitor in New England. This eastward expansion may be related to the growing number of ornamental box elders, which provide a steady food supply for the grosbeaks.

-> Evening Grosbeaks are irregular (or “irruptive”) winter migrants. Some years these spectacular finches show up at feeders far south of their normal winter range—providing a treat for backyard bird watchers. By joining

-> The oldest recorded Evening Grosbeak was a male, and at least 16 years, 3 months old when he was found in New Brunswick in 1974. He had been banded in Connecticut in 1959.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult male

Large, heavyset finch with a very thick, conical bill. Adult males are yellow and black birds with a prominent white patch in the wings. Note bright-yellow stripe over the eye.



Female/immature male

Large and stocky finch with an enormous bill. Females/immatures are mostly gray, with white-and-black wings and a greenish-yellow tinge to the neck and flanks.



Adult male

Heavy-bodied finch with a hefty bill. Adult males are mustard yellow below with a brighter yellow eyebrow.



Female/immature male

Females/immatures are grayish overall with a yellow wash on the neck.
Note black-and-white wings with a white rectangular patch.



Male and female

None



Female/immature male

Uses its hefty bill to crush sunflower seeds at bird feeders.



Flock

Makes very erratic movements south into the continental United States in some winters, when they can become common at backyard feeders.



Flock

Often found in flocks, particularly in winter in evergreen and deciduous forests.

House Finch

Bird Characteristics

Scientific Name: *Haemorhous mexicanus*

Order: Passeriformes

Family Name: Fringillidae

Conservation Status: Low Concern

Length: 5.1-5.5 in (13-14 cm)

Weight: 0.6-0.9 oz (16-27 g)

Wingspan: 7.9-9.8 in (20-25 cm)

Basic Description: The House Finch is a recent introduction from western into eastern North America (and Hawaii), but it has received a warmer reception than other arrivals like the European Starling and House Sparrow. That's partly due to the cheerful red head and breast of males, and to the bird's long, twittering song, which can now be heard in most of the neighborhoods of the continent. If you haven't seen one recently, chances are you can find one at the next bird feeder you come across.

Nesting Characteristics

Bird Information

Habitat: House Finches are familiar birds of human-created habitats including buildings, lawns, small conifers, and urban centers. In rural areas, you can also find House Finches around barns and stables. In their native range in the West, House Finches live in natural habitats including dry desert, desert grassland, chaparral, oak savannah, streamsides, and open coniferous forests at elevations below 6,000 feet.

Food: House Finches eat almost exclusively plant materials, including seeds, buds and fruits. Wild foods include wild mustard seeds, knotweed, thistle, mulberry, poison oak, cactus, and many other species. In orchards, House Finches eat cherries, apricots, peaches, pears, plums, strawberries, blackberries, and figs. At feeders they eat black oil sunflower over the larger, striped sunflower seeds, millet, and milo.

Behavior: undefined

Conservation:

Color Pattern: Adult males are rosy red around the face and upper breast, with streaky brown back, belly and tail. In flight, the red rump is conspicuous. Adult females aren't red; they are plain grayish-brown with thick, blurry streaks and an indistinctly marked face.

Fun Facts

-> The House Finch was originally a bird of the western United States and Mexico. In 1940 a small number of finches were turned loose on Long Island, New York, after failed attempts to sell them as cage birds ("Hollywood finches"). They quickly started breeding and spread across almost all of the eastern United States and southern Canada within the next 50 years.

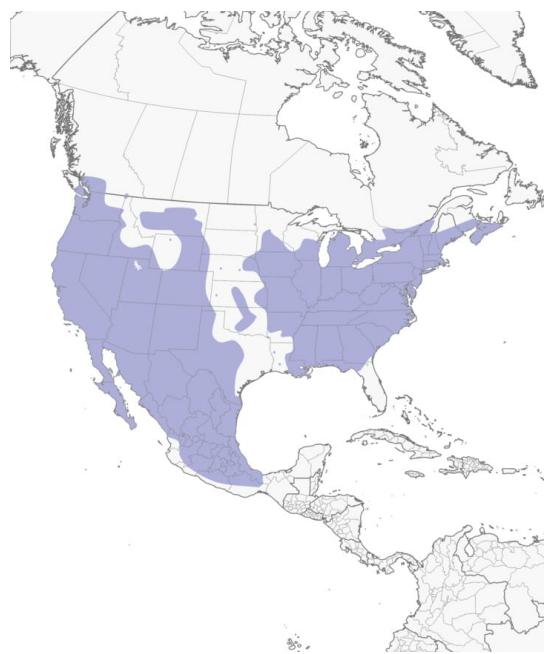
-> House Finches were introduced to Oahu from San Francisco sometime before 1870. They had become abundant on all the major Hawaiian Islands by 1901.

-> The red of a male House Finch comes from pigments contained in its food during molt (birds can't make bright red or yellow colors directly). So the more pigment in the food, the redder the male. This is why people sometimes see orange or yellowish male House Finches. Females prefer to mate with the reddest male they can find, perhaps raising the chances they get a capable mate who can do his part in feeding the nestlings.

-> House Finches feed their nestlings exclusively plant foods, a fairly rare occurrence in the bird world. Many birds that are vegetarians as adults still find animal foods to keep their fast-growing young supplied with protein.

-> The oldest known House Finch was a female, and at least 11 years, 7 months old when she was recaptured and rereleased during banding operations in New York in 1985, the same state where she had been banded in 1973.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Adult male

Small finch with a conical seed-eating bill. Like other finches, it has a notched tail. Adult males are rosy red around the face and upper breast, with a streaky brown back, belly, and tail.



Female/immature

Small finch with a conical bill and notched tail. Females/immature males are brown overall with blurry streaks down the belly.



Adult male

Adult males are rosy red around the face and upper breast, with a streaks

down the belly and on the flanks.



Female/immature
None



Adult male
Plumage color varies with diet. The more carotenoid rich foods they eat, the redder they become.



Adult male
Plumage coloration ranges from yellow to bright red depending on the amount of carotenoid rich foods they eat; the more carotenoids in food the brighter red they become.



Male and female
None



Adult male
Small finch with a conical bill that it uses to crack open seeds.



Female/immature
Females/immature males are brown overall with blurry streaking on the back and belly.



Juvenile
None



Female/immature

Note blurry brown streaks on the flanks.



Adult male

In the western U.S., you'll find House Finches in their native habitats of deserts, grassland, chaparral, and open woods as well as city parks, backyards, urban centers, farms, and forest edges across the continent.

Pine Siskin

Bird Characteristics

Scientific Name: *Spinus pinus*

Order: Passeriformes

Family Name: Fringillidae

Conservation Status: Common Bird in Steep Decline

Length: 4.3-5.5 in (11-14 cm)

Weight: 0.4-0.6 oz (12-18 g)

Wingspan: 7.1-8.7 in (18-22 cm)

Basic Description: Flocks of tiny Pine Siskins may monopolize your thistle feeder one winter and be absent the next. This nomadic finch ranges widely and erratically across the continent each winter in response to seed crops. Better suited to clinging to branch tips than to hopping along the ground, these brown-streaked acrobats flash yellow wing markings as they flutter while feeding or as they explode into flight. Flocks are gregarious, and you may hear their insistent wheezy twitters before you see them.

Nesting Characteristics

Clutch Size: 3-5 eggs

Number of Broods: 1-2 broods

Egg Length: 0.6-0.8 in (1.5-1.9 cm)

Egg Width: 0.4-0.6 in (1.1-1.4 cm)

Incubation Period: 13 days

Nestling Period: 13-17 days

Egg Description: Pale greenish-blue with brown or reddish-brown spotting.

Condition at Hatching: Helpless, weighing just over a gram, eyes closed, with dark gray down on head and back.

Bird Information

Habitat: Pine Siskins generally nest in open coniferous or mixed forests, but also inhabit parks, cemeteries, and suburban woodlands, where they breed in ornamental conifers or deciduous trees. While they favor feeding in open forest canopies where cone seeds are abundant, they'll forage in habitats as diverse as deciduous forests and thickets, meadows, grasslands, weedy fields, roadsides, chaparral, and backyard gardens and lawns. They flock to backyard feeders offering small seeds. Mineral deposits can lure them to otherwise unattractive habitats like winter road beds that are salted to melt snow and ice.

Food: As their name suggests, Pine Siskins have a fondness for the seeds of pines and other conifers like cedars, larch, hemlock, and spruce. They also feed on deciduous seeds like alder, birch, sweetgum, and maples. They eat the young buds of willows, elms, and maples, and the soft stems and leaves of weeds and even young garden vegetables. They'll glean the seeds of grasses, dandelions, chickweed, sunflowers, and ragweed. They forage for insects, spiders, and grubs from leaves and branch tips, and occasionally take insects from the air. Pine Siskins feed readily at backyard feeders, preferring smaller seeds without tough shells like thistle and oil sunflower, but they will scavenge fragments of larger seeds left by heavier-billed birds, and will occasionally eat suet. They also feed on mineral deposits, including ashes, road salt, and fresh cement. They have been seen drinking from sapwells drilled by sapsuckers.

Behavior: Pine Siskins flit about in the topmost canopy of seed-bearing trees. They'll often cling upside down to branch tips to empty hanging cones of their seeds. Abundant seeds or tender shoots lure them to the ground to feed. Gregarious flocks are constantly atwitter with wheezy contact calls while feeding or during their undulating flight. Unusually convivial and unterritorial, they sometimes nest in loose colonies, continuing to forage in flocks away from the nests. Males sing from high perches and during circular courtship flights. Pairs may visit other pairs' nests before and after brooding. During brooding, the female stays on the nest and the male feeds her. Winter flocks and individuals can be aggressive around food sources, challenging competitors by lowering their heads, spreading their wings and tail, and making faint threatening call notes. Aggressive lunges are the next step and may result in fights that can carry competing siskins several meters into the air. Opportunistic Pine Siskins may forage close to heavier-beaked birds, gleaning fragments of larger seeds they can't crack themselves. And they'll hop on the downy seed heads of dandelions, trapping them on the ground for easy picking. Pine Siskins sometimes migrate in flocks of several thousand.

Conservation:

Color Pattern: Pine siskins are brown and very streaky birds with subtle yellow edgings on wings and tails. Flashes of yellow can erupt as they take flight, flutter at branch tips, or display during mating.

Fun Facts

-> Following a large irruptive winter flight, some individuals may stay near a dependable food source and breed far south of the normal breeding range.

-> Bird-banding projects are invaluable for tracking migrating birds, even though few bands are ever recovered for small birds like siskins. Nearly 675,000 Pine Siskins were banded between 1960 and 2011; fewer than 2,000 were later found. By contrast, about one-quarter of the nearly 5,000,000 geese banded in the same period were recovered.

-> Pine Siskins get through cold nights by ramping up their metabolic rates—typically 40% higher than a “normal” songbird of their size. When temperatures plunge as low as -70°C (-94°F), they can accelerate that rate up to five times normal for several hours. They also put on half again as much winter fat as their Common Redpoll and American Goldfinch relatives.

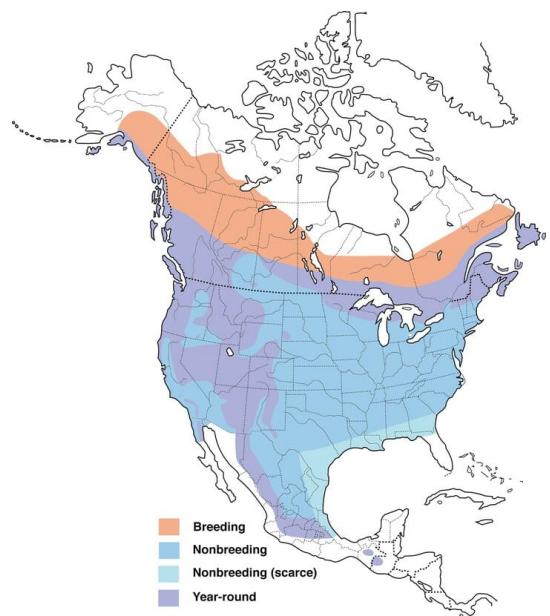
-> Pine Siskins protect their eggs from cold damage, too. The nest is highly insulated, and the female remains on the nest continuously, fed by the male throughout brooding.

-> Pine Siskins can temporarily store seeds totaling as much as 10% of their body mass in a part of their esophagus called the crop. The energy in that amount of food could get them through 5–6 nighttime hours of subzero temperatures.

-> The oldest recorded Pine Siskin was at least 8 years, 8 months old when it was found in Michigan in 1966. It had been banded in Pennsylvania in 1958.

-> Every couple of years, Pine Siskins make unpredictable movements called irruptions into southern and eastern North America. Though they’re erratic, these movements may not be entirely random. Banding data suggest that some birds may fly west-east across the continent while others move north-south.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Adult (Northern)

Small finch with a sharp, pointed bill and a short, notched tail. Adults are brown and streaky overall with subtle yellow edgings on the wings and tail.



Adult (Northern)

Small, streaky finch with a sharply pointed bill and notched tail.



Immature (Northern)

None



Adult (green morph)

The rarely encountered "green morph" has more intense yellow and green plumage tones and often reduced streaking below.



Adult male (Chiapas)

Adult male resident in the highlands of s. Chiapas and w. Guatemala have a black cap, gray lightly streaked underparts and brighter yellow edging in the wings and tail.



Female (Chiapas)

None



Juvenile (Northern)

Juveniles look similar to adults, but have buffy edging on their wing feathers.



Adult (Northern)

Brown and streaky finch with a sharply pointed bill. Cannot be reliably sexed based on the amount of yellow in the wings.



Adult (Northern)

None



Adult (green morph)

None



Flock (Northern)
None



Adult (Northern)
Found in evergreen or mixed forests with open canopies, weedy fields, scrubby thickets, or backyards and gardens.

House Sparrow

Bird Characteristics

Scientific Name: *Passer domesticus*

Order: Passeriformes

Family Name: Passeridae

Conservation Status: Low Concern

Length: 5.9-6.7 in (15-17 cm)

Weight: 0.9-1.1 oz (27-30 g)

Wingspan: 7.5-9.8 in (19-25 cm)

Basic Description: You can find House Sparrows most places where there are houses (or other buildings), and few places where there aren't. Along with two other introduced species, the European Starling and the Rock Pigeon, these are some of our most common birds. Their constant presence outside our doors makes them easy to overlook, and their tendency to displace native birds from nest boxes causes some people to resent them. But House Sparrows, with their capacity to live so intimately with us, are just beneficiaries of our own success.

Nesting Characteristics

Clutch Size: 1-8 eggs

Number of Broods: 1-4 broods

Egg Length: 0.8-0.9 in (2-2.2 cm)

Egg Width: 0.6-0.6 in (1.4-1.6 cm)

Incubation Period: 10-14 days

Nestling Period: 10-14 days

Egg Description: Light white to greenish white or bluish white, usually spotted with gray or brown.

Condition at Hatching: Entirely naked upon hatching with bright pink skin, eyes closed, clumsy.

Nest Placement: House Sparrows nest in holes of buildings and other structures such as streetlights, gas-station roofs, signs, and the overhanging fixtures that hold traffic lights. They sometimes build nests in vines climbing the walls of buildings. House Sparrows are strong competitors for nest boxes, too, at times displacing the species the nest box was intended for, such as bluebirds and Tree Swallows. House Sparrows nest in holes in trees somewhat less often.

Nest Description: House Sparrow nests are made of coarse dried vegetation, often stuffed into the hole until it's nearly filled. The birds then use finer material, including feathers, string, and paper, for the lining. House Sparrows sometimes build nests next to each other, and these neighboring nests can share walls. House Sparrows often reuse their nests.

Bird Information

Habitat: House Sparrows are closely associated with people and their buildings. Look for them in cities, towns, suburbs, and farms (particularly around livestock). You won't find them in extensive woodlands, forests, or grasslands. In extreme environments such as deserts or the far north, House Sparrows survive only in the immediate vicinity of people.

Food: House Sparrows eat mostly grains and seeds, as well as livestock feed and, in cities, discarded food. Among the crops they eat are corn, oats, wheat, and sorghum. Wild foods include ragweed, crabgrass and other grasses, and buckwheat. House Sparrows readily eat birdseed including millet, milo, and sunflower seeds. Urban birds readily eat commercial bird seed. In summer, House Sparrows eat insects and feed them to their young. They catch insects in the air, by pouncing on them, or by following lawnmowers or visiting lights at dusk.

Behavior: House Sparrows hop rather than walk on the ground. They are social, feeding in crowded flocks and squabbling over crumbs or seeds on the ground. House Sparrows are a common sight at bird feeders; you may also see them bathing in street-side puddles or dustbathing on open ground, ruffling their feathers and flicking water or dust over themselves with similar motions. From living in such close company, House Sparrows have developed many ways of indicating dominance and submission. Nervous birds flick their tails. Aggravated birds crouch with the body horizontal, shove their head forward and partially spread and roll forward their wings, and hold the tail erect. This can intensify to a display with wings lifted, crown and throat feathers standing on end, tail fanned, and beak open. Males with larger amounts of black on the throat tend to dominate over males with less black. When males display to a prospective mate, they fluff up their chest, hold their wings partially open, fan the tail, and hop stiffly in front of the female, turning sideways and sometimes bowing up and down. Sometimes, other males who spot such a display in progress will fly in and begin displaying as well. In flocks, males tend to dominate over females in fall and winter, but females assert themselves in spring and summer.

Conservation: House Sparrow populations declined by over 3.5% between 1966 and 2015, resulting in a cumulative decline of 84%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 540 million with 13% in the

U.S., 2% in Canada and 2% in Mexico. The species rates an 8 out of 20 on the Continental Concern Scale. As a non-native species, it is not included on the

Color Pattern: Male House Sparrows are brightly colored birds with gray heads, white cheeks, a black bib, and rufous neck – although in cities you may see some that are dull and grubby. Females are a plain buffy-brown overall with dingy gray-brown underparts. Their backs are noticeably striped with buff, black, and brown.

Fun Facts

-> The House Sparrow was introduced into Brooklyn, New York, in 1851. By 1900 it had spread to the Rocky Mountains. Two more introductions in the early 1870s, in San Francisco and Salt Lake City, aided the bird's spread throughout the West. House Sparrows are now common across all of North America except Alaska and far northern Canada.

-> The House Sparrow takes frequent dust baths. It throws soil and dust over its body feathers, just as if it were bathing with water. In doing so, a sparrow may make a small depression in the ground, and sometimes defends this spot against other sparrows.

-> The House Sparrow prefers to nest in manmade structures such as eaves or walls of buildings, street lights, and nest boxes instead of in natural nest sites such as holes in trees.

-> Due to its abundance, ease to raise and general lack of fear towards humans, the House Sparrow has proved to be an excellent model organism for many avian biological studies. To date, there have been almost 5,000 scientific papers published with the House Sparrow as the study species.

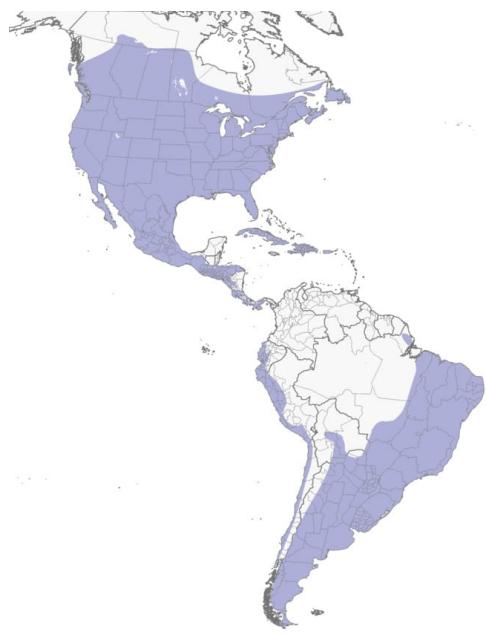
-> House Sparrows aggressively defend their nest holes. A scientist in 1889 reported cases of House Sparrows attacking 70 different bird species. House Sparrows sometimes evict other birds from nest holes, including Eastern Bluebirds, Purple Martins, and Tree Swallows.

-> House Sparrows in flocks have a pecking order much the way chickens in a farmyard do. You can begin to decipher the standings by paying attention to the black throats of the males. Males with larger patches of black tend to be older and dominant over males with less black. By wearing this information on their feathers, sparrows can avoid some fights and thereby save energy.

-> House Sparrows have been seen stealing food from American Robins and piercing flowers to drain them of nectar.

-> The oldest recorded House Sparrow was a female, and at least 15 years, 9 months old when she was found in Texas in 2004, the same state where she had been banded.

Migration Map



Violet = Year Round
Peach = Breeding
Yellow = Migration
Blue = Nonbreeding

Birdies



Breeding male

A chunky full-breasted bird with a round head and a stout bill. Breeding males have gray crowns, white cheeks, a black bib, and a chestnut neck.



Female

Full-bodied bird of urban environments with a stout bill. Females are a plain buffy-brown overall with dingy gray-brown underparts. Their backs are noticeably striped with buff, black, and brown.



Nonbreeding/immature

Nonbreeding males are streaked brown, black, and buffy above and dingy

below. They lack the bright chestnut neck and extensive black bib of breeding males. Note yellowish bill on nonbreeding birds.



Breeding male
None



Juvenile
None



Breeding male
Stocky Old World sparrow with a stout bill. The male's bib becomes darker black as the breeding season approaches.



Female
None



Nonbreeding/immature
None



Breeding male
None



Breeding male
Nest in holes of buildings and other structures such as streetlights, gas-station roofs, signs, and the overhanging fixtures that hold traffic lights. Also nests in nest boxes and competes with other species for them.



Habitat

Associated with human development. Found in cities, parks, zoos, suburban areas, and around farm buildings.

European Starling

Bird Characteristics

Scientific Name: *Sturnus vulgaris*

Order: Passeriformes

Family Name: Sturnidae

Conservation Status: Low Concern

Length: 7.9-9.1 in (20-23 cm)

Weight: 2.1-3.4 oz (60-96 g)

Wingspan: 12.2-15.8 in (31-40 cm)

Basic Description: First brought to North America by Shakespeare enthusiasts in the nineteenth century, European Starlings are now among the continent's most numerous songbirds. They are stocky black birds with short tails, triangular wings, and long, pointed bills. Though they're sometimes resented for their abundance and aggressiveness, they're still dazzling birds when you get a good look. Covered in white spots during winter, they turn dark and glossy in summer. For much of the year, they wheel through the sky and mob lawns in big, noisy flocks.

Nesting Characteristics

Clutch Size: 3-6 eggs

Number of Broods: 1-2 broods

Egg Length: 1.1-1.3 in (2.7-3.2 cm)

Egg Width: 0.8-0.9 in (1.9-2.3 cm)

Incubation Period: 12 days

Nestling Period: 21-23 days

Egg Description: Bluish or greenish white.

Condition at Hatching: Helpless, with sparse grayish down. Newly hatched starlings weigh about 6.4 grams. The eyes stay closed for 6-7 days.

Nest Placement: Males choose the nest site and use it to attract females. The nests are virtually always in a cavity, typically in a building or other structure (look for them in streetlights and traffic signal supports), an old woodpecker hole, or a nest box. Starlings also occasionally nest in burrows and cliffs. Nest holes are typically 10-25 feet off the ground but can be up to 60 feet high.

Nest Description: Male starlings begin building the nest before mating takes place, filling the cavity with grass and pine needles, along with feathers, trash, cloth, and string. There's a depression near the back of the cavity where the cup is built and lined with feathers, fine bark, leaves, and grass. Females oversee the final arrangements and may discard some of the material the male added. Starlings also add fresh green plants to the nest throughout the nesting period, particularly during laying and incubation. Nests can be built in as little as 1-3 days. Both sexes incubate the eggs.

Bird Information

Habitat: Starlings typically live around people, using mowed lawns, city streets, and agricultural fields for feeding; and trees, buildings, and other structures for nesting. Their main requirements are open, grassy areas in which to forage, a water source, and trees or buildings that contain suitable cavities or niches for nesting. They avoid large, unbroken stretches of forest, chaparral, and desert.

Food: Starlings will eat nearly anything, but they focus on insects and other invertebrates when they're available. Common prey include grasshoppers, beetles, flies, caterpillars, snails, earthworms, millipedes, and spiders. They also eat fruits including wild and cultivated cherries, holly berries, hackberries, mulberries, tupelo, Virginia creeper, sumac, and blackberries; as well as grains, seeds, nectar, livestock feed, and garbage.

Behavior: Starlings forage in lawns, fields, and other open areas with short vegetation. They wander over the ground, often quite rapidly, poking their closed bill into the ground and using their strong jaw muscles to force open the bill and search for soil insects and other invertebrates. They often forage with other species, including grackles, cowbirds, blackbirds, House Sparrows, Rock Pigeons, American Robins, and American Crows. Watching starlings in flocks can reveal several ways that these gregarious birds communicate with their neighbors. Starlings signal agitation by flicking their wings, or by staring at their opponents while standing erect, fluffing their feathers, and raising the feathers of the head. Submissive birds crouch and move away with their feathers sleeked. Confrontations can escalate into birds charging at each other and stabbing with their long bills. Birds on wires may push others away by sidling along the perch until they've run out of room. Males attract mates by singing near a nest site they've claimed and flapping their wings in circles at the same time. After they've paired, males follow their mates everywhere, chasing off other males. Starlings are extremely aggressive birds that drive other species from nest sites they want to use. Among the species they've chased off are Wood Ducks, Buffleheads, Northern Flickers, Great Crested Flycatchers, Tree Swallows, and Eastern Bluebirds.

Conservation: European Starlings are common and widespread but their populations decreased by about 52% between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population to be 150 million with 31% living in the U.S., 8% in Canada, and 1% in Mexico. The species rates a 7 out of 20 on the Continental Concern Score. European Starling is not on the

Color Pattern: At a distance, starlings look black. In summer they are purplish-green iridescent with yellow beaks; in fresh winter plumage they are brown, covered in brilliant white spots.

Fun Facts

-> All the European Starlings in North America descended from 100 birds set loose in New York's Central Park in the early 1890s. The birds were intentionally released by a group who wanted America to have all the birds that Shakespeare ever mentioned. It took several tries, but eventually the population took off. Today, more than 200 million European Starlings range from Alaska to Mexico, and many people consider them pests.

-> Because of their recent arrival in North America, all of our starlings are closely related. Genetically, individuals from Virginia are nearly indistinguishable from starlings sampled in California, 3,000 miles away. Such little genetic variation often spells trouble for rare species, but seems to offer no ill effects to starlings so far.

-> Starlings are great vocal mimics: individuals can learn the calls of up to 20 different species. Birds whose songs starlings often copy include the Eastern Wood-Pewee, Killdeer, meadowlarks, Northern Bobwhite, Wood Thrush, Red-tailed Hawk, American Robin, Northern Flicker, and many others.

-> Starlings turn from spotted and white to glossy and dark each year without shedding their feathers. The new feathers they grow in fall have bold white tips – that's what gives them their spots. By spring, these tips have worn away, and the rest of the feather is dark and iridescent brown. It's an unusual changing act that scientists term "wear molt."

-> Starlings are strong fliers that can get up to speeds of 48 mph.

-> In studies of starlings' sense of taste, scientists have discovered that they can taste salt, sugars, citric acid, and tannins (bitter compounds that occur in many fruits, including acorns and grapes). They can tell the difference between sucrose (table sugar) and other kinds of sugars – helpful since starlings lack the ability to digest sucrose.

-> A female European Starling may try to lay an egg in the nest of another female. A female that tries this parasitic tactic often is one that could not get a mate early in the breeding season. The best females find mates and start laying early. The longer it takes to get started, the lower the probability of a nest's success. Those parasitic females may be trying to enhance their own breeding efforts during the time that they cannot breed on their own.

-> The oldest recorded wild European Starling in North America was a male and was at least 15 years, 3 months old when he died in Tennessee in 1972. He had been banded in the same state in 1958.

Migration Map



Violet = Year Round

Peach = Breeding

Yellow = Migration

Blue = Nonbreeding

Birdies



Breeding adult

Chunky and blackbird-sized, but with a short tail and a long, slender bill. In flight their wings are short and pointed. Breeding birds are dark overall with purplish-green iridescent and yellow bills.



Nonbreeding adult/immature

Chunky dark bird with a finely pointed bill. Nonbreeding birds have spots on their back and underparts. The bill is dark in winter, but begins to turn yellow as breeding season approaches.



Juvenile

Juveniles are pale brown overall with a dark bill. Adult feathers with white tips are growing in on the flanks of this individual.



Juvenile
Juveniles are pale brown overall.



Breeding adult
None



Nonbreeding adult/immature
None



Nonbreeding adult

Nests in holes in trees, birdhouses, or other artificial structures with holes or crevices. Nonbreeding adults are spotted above and below. The bill color changes from black to yellow and the spots are lost as the breeding season nears.



Flock

Forms large flocks coordinating their movements with the flockmates nearest them, in a giant cloud called a murmuration.

