

# Birds

McLean Highschool Science Olympiad

January 9, 2020

## 1 Black-bellied Whistling-duck *Dendrocygna autumnalis*

Order *Anseriformes* Family *Anatidae*

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.



Figure 1: Adult

## 1.1 Cool 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.



Figure 2: Adult

## 2 Red-tailed Hawk *Buteo jamaicensis*

Order *Accipitriformes* Family *Accipitridae*

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.



Figure 3: Adult (*borealis*)

## 2.1 Cool 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.



Figure 4: Adult light morph (*calurus/alascensis*)

### 3 Snow Goose *Anser caerulescens*

Order *Anseriformes* Family *Anatidae*

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.

#### 3.1 Cool 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



Figure 5: Adult white morph

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.



Figure 6: Adult blue morph

## 4 Canada Goose *Branta canadensis*

Order *Anseriformes* Family *Anatidae*

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.



Figure 7: Adult

#### 4.1 Cool 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,
- *Branta canadensis maxima*
- , bred from central Manitoba to Kentucky but was nearly driven extinct in the early 1900s. Programs to reestablish the subspecies to its original

range were in many places so successful that the geese have become a nuisance in many urban and suburban areas.

- 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.



Figure 8: Adult (*occidentalis/fulva*)

## 5 Trumpeter Swan *Cygnus buccinator*

Order *Anseriformes* Family *Anatidae*

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.



Figure 9: Adult

### 5.1 Cool 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,
- *Cygnus buccinator*
- , is from the Latin
- *Cygnus*
- (swan) and
- *buccinare*
- (to trumpet). We humans have a buccinator muscle in our cheeks—we use it to blow out candles and to blow into trumpets and other instruments.
- A “voiceless” Trumpeter Swan named Louis was the main character in E. B. White’s 1970 children’s book,
- The Trumpet of the Swan
- . Louis courted his partner Serena by playing a trumpet.
- 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.

## 6 Wood Duck *Aix sponsa*

Order *Anseriformes* Family *Anatidae*

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.

### 6.1 Cool 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.



Figure 10: Juvenile



Figure 11: Male

- 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.



Figure 12: Female

## 7 Mallard *Anas platyrhynchos*

Order *Anseriformes* Family *Anatidae*

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.

### 7.1 Cool 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.



Figure 13: Breeding male

- 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.



Figure 14: Female

## 8 Northern Shoveler *Spatula clypeata*

Order *Anseriformes* Family *Anatidae*

Perhaps the most outwardly distinctive of the dabbling ducks thanks to its large spoon-shaped bill, the Northern Shoveler busily forages head down in shallow wetlands. Its uniquely shaped bill has comblike projections along its edges, which filter out tiny crustaceans and seeds from the water. If the bill doesn't catch your eye, the male's blocky color palette sure will, with its bright white chest, rusty sides, and green head. The female is no less interesting with a giant orange bill and mottled brown plumage.



Figure 15: Breeding male

### 8.1 Cool 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.

## 9 Green-winged Teal *Anas crecca*

Order *Anseriformes* Family *Anatidae*

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



Figure 16: Female/immature

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.

### 9.1 Cool 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,
- *Anas crecca nimia*
- . Unlike other Green-winged Teal populations, this race doesn't migrate. In winter the birds move from summering sites on ponds and lakes to the islands' beaches, where they forage in tide pools and on shallow-water reefs.
- Green-winged Teals have closely spaced, comblike projections called lamellae around the inner edge of the bill. They use them to filter tiny inver-



Figure 17: Male (American)

tebrates 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.

## 10 Canvasback *Aythya valisineria*

Order *Anseriformes* Family *Anatidae*

Often called the aristocrat of ducks, the Canvasback holds its long sloping forehead high with a distinguished look. Males stand out with a rusty head and neck and a gleaming whitish body bookended in black. Females are pale brown overall, but that Canvasback head shape still gives them away. This diving duck eats plant tubers at the bottom of lakes and wetlands. It breeds in lakes and marshes and winters by the thousands on freshwater lakes and coastal waters.



Figure 18: Male (Eurasian)



Figure 19: Male

### 10.1 Cool Facts

- The species name of the Canvasback,

- valisineria
- , comes from
- *Vallisneria americana*
- , or wild celery, whose winter buds and stems are the duck's preferred food during the nonbreeding period.
- 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.



Figure 20: Female

## 11 Hooded Merganser *Lophodytes cucullatus*

Order *Anseriformes* Family *Anatidae*

"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.



Figure 21: Adult male

### 11.1 Cool 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
- Lophodytes
- ) lie between goldeneyes (
- Bucephala
- ) and the other North American mergansers (
- Mergus
- ). They share many courtship behaviors and calls with both of those groups.
- 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.



Figure 22: Nonbreeding male

## 12 Ring-necked Pheasant *Phasianus colchicus*

Order *Galliformes* Family *Phasianidae*

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.



Figure 23: Male

### 12.1 Cool 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.



Figure 24: Female

## 13 Ruffed Grouse *Bonasa umbellus*

Order *Galliformes* Family *Phasianidae*

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.



Figure 25: Adult

### 13.1 Cool 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, mak-

ing 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.



Figure 26: Displaying male

## 14 Wild Turkey *Meleagris gallopavo*

Order *Galliformes* Family *Phasianidae*

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.



Figure 27: Male

### 14.1 Cool 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.

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.



Figure 28: Female

## 15 Northern Bobwhite *Colinus virginianus*

Order *Galliformes* Family *Odontophoridae*  
An emphatic, whistled



Figure 29: Male

### 15.1 Cool 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.



Figure 30: Female

## 16 Red-throated Loon *Gavia stellata*

Order *Gaviiformes* Family *Gaviidae*

Red-throated Loons are among the finest fish hunters in North America, and perhaps the most graceful of all loons. They are smaller and more slender than other loons, with a smaller bill that they characteristically hold tipped slightly upward. In summer, they are a soft gray with neat stripes and a russet patch on the neck. Like other loons they dive for fish from the surface, but may also hunt from the air. They fly swiftly and are able to stall, pivot, and drop with almost falconlike precision.

### 16.1 Cool 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



Figure 31: Breeding adult

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.

## 17 Common Loon *Gavia immer*

Order *Gaviiformes* Family *Gaviidae*

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.

### 17.1 Cool 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.



Figure 32: Nonbreeding adult



Figure 33: Breeding adult

- 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.

## 18 Pied-billed Grebe *Podilymbus podiceps*

Order *Podicipediformes* Family *Podicipedidae*

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



Figure 34: Nonbreeding/immature

other invertebrates. Rarely seen in flight and often hidden amid vegetation, Pied-billed Grebes announce their presence with loud, far-reaching calls.



Figure 35: Breeding adult

## 18.1 Cool 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.

## 19 Red-necked Grebe *Podiceps grisegena*

Order *Podicipediformes* Family *Podicipedidae*

Red-necked Grebes are boldly plumaged waterbirds with pale cheeks and a daggerlike yellow bill that contrasts with a sharp black crown often likened to a torreador’s cap (sometimes raised into a short crest). In breeding plumage, the neck is a rich brick red. The species breeds on northerly lakes and winters mainly along ocean coastlines, usually singly but sometimes in small groups. During spring migration, flocks may form on large lakes, and pairs begin their boisterous courtship displays well before reaching breeding lakes farther north.



Figure 36: Nonbreeding



Figure 37: Breeding adult

### 19.1 Cool 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.



Figure 38: Nonbreeding

## 20 Laysan Albatross *Phoebastria immutabilis*

Order *Procellariiformes* Family *Diomedeidae*

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.



Figure 39: Adult/immature

### 20.1 Cool 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
- The Rime of the Ancient Mariner
- , a crewmember foolishly shoots an albatross, setting off a string of terrible misfortunes.
- 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
  - longline fisheries that do not use seabird-safe equipment
  - . The Seafood Watch program offers convenient information and an app about
  - sustainable seafood
  - .
- 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.

## 21 Northern Fulmar *Fulmarus glacialis*

Order *Procellariiformes* Family *Procellariidae*

A gull-like relative of albatrosses and shearwaters, the Northern Fulmar is a bird of the northern oceans. It breeds in a few dozen scattered locations off Alaska and Canada, but is more abundant and widespread elsewhere in the northern hemisphere, especially in the northeast Atlantic.



Figure 40: Adult/immature



Figure 41: Light morph

### 21.1 Cool Facts

- The Northern Fulmar is one of the longest-lived birds. Data from one study indicate a mean adult life span of about 32 years. In Scotland,

several Northern Fulmars banded as adults in 1951 were still breeding in 1990, at ages likely greater than 50 years.

- The Northern Fulmar begins 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 well known among commercial fishermen for its avid scavenging of offal thrown from whaling and fishing boats.
- The population of Northern Fulmars in the northeast Atlantic has dramatically increased over the past 250 years. Once only one colony was found in northern Iceland, and none off the Faeroes or the British Isles. Now hundreds of colonies exist across all the coasts of these islands. It is unclear whether this change has resulted from natural oceanographic changes, from increased food availability from fishing vessels, or from some other factor.
- The Northern Fulmar can dive to a depth of at least 3 meters (10 feet).



Figure 42: Dark morph

## 22 American White Pelican *Pelecanus erythrorhynchos*

Order *Pelecaniformes* Family *Pelecanidae*

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.



Figure 43: Breeding adult

## 22.1 Cool Facts

- In
- A Sand County Almanac
- , pioneering conservationist Aldo Leopold described a migrating group of American White Pelicans this way: “Let a squadron of southbound pelicans but feel a lift of prairie breeze... and they sense at once that here is a landing in the geological past, a refuge from that most relentless of aggressors, the future. With queer antediluvian grunts they set wing, descending in majestic spirals to the welcoming wastes of a bygone age.”
- 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.

## 23 American Bittern *Botaurus lentiginosus*

Order *Pelecaniformes* Family *Ardeidae*

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.



Figure 44: Nonbreeding adult



Figure 45: Adult/immature

### 23.1 Cool 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.



Figure 46: Adult

## 24 Great Blue Heron *Ardea herodias*

Order *Pelecaniformes* Family *Ardeidae*

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.



Figure 47: Adult (Blue form)

### 24.1 Cool 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.



Figure 48: Immature (Blue form)

## 25 Snowy Egret *Egretta thula*

Order *Pelecaniformes* Family *Ardeidae*

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.



Figure 49: Breeding adult

### 25.1 Cool 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.



Figure 50: Immature

## 26 Green Heron *Butorides virescens*

Order *Pelecaniformes* Family *Ardeidae*

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.

### 26.1 Cool 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.



Figure 51: Adult

- 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.

## 27 Black-crowned Night-heron *Nycticorax nycticorax*

Order *Pelecaniformes* Family *Ardeidae*



Figure 52: Juvenile

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.

### 27.1 Cool 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.



Figure 53: Adult (American)

- The familiar evening sight and sound of the Black-crowned Night-Heron was captured in this description from Arthur Bent's
- Life Histories of North American Marsh Birds:
- "How often, in the gathering dusk of evening, have we heard its loud, choking squawk and, looking up, have seen its stocky form, dimly outlined against the gray sky and propelled by steady wing beats, as it wings its way high in the air toward its evening feeding place in some distant pond or marsh!"
- The oldest Black-crowned Night-Heron on record was a female who was at least 21 years, 5 month old.

## 28 Roseate Spoonbill *Platalea ajaja*

Order *Pelecaniformes* Family *Threskiornithidae*

The flamboyant Roseate Spoonbill looks like it came straight out of a Dr. Seuss book with its bright pink feathers, red eye staring out from a partly bald head, and giant spoon-shaped bill. Groups sweep their spoonbills through shallow fresh or salt waters snapping up crustaceans and fish. They fly with necks outstretched, to and from foraging and nesting areas along the coastal southeastern U.S., and south to South America. These social birds nest and roost in trees and shrubs with other large wading birds.



Figure 54: Juvenile



Figure 55: Adult

### 28.1 Cool 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.



Figure 56: Juvenile

## 29 Double-crested Cormorant *Phalacrocorax auritus*

Order *Suliformes* Family *Phalacrocoracidae*

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.



Figure 57: Breeding adult

### 29.1 Cool 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, 6 months old; it was banded in Ontario in 1984 and found in Louisiana in 2006.



Figure 58: Juvenile

## 30 Anhinga *Anhinga anhinga*

Order *Suliformes* Family *Anhingidae*

A dark body stealthily swims through a lake with only a snakelike head poking above the surface. What may sound like the Loch Ness monster is actually an Anhinga, swimming underwater and stabbing fish with its daggerlike bill. After every dip, it strikes a regal pose on the edges of shallow lakes and ponds, with its silvery wings outstretched and head held high to dry its waterlogged feathers. Once dry, it takes to the sky, soaring high on thermals stretched out like a cross.



Figure 59: Adult male

### 30.1 Cool 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.



Figure 60: Female/immature

## 31 Wood Stork *Mycteria americana*

Order *Ciconiiformes* Family *Ciconiidae*

Large, white Wood Storks wade through southeastern swamps and wetlands. Although this stork doesn't bring babies, it is a good flier, soaring on thermals with neck and legs outstretched. This bald-headed wading bird stands just over 3 feet tall, towering above almost all other wetland birds. It slowly walks through wetlands with its long, hefty bill down in the water feeling for fish and crustaceans. This ungainly looking stork roosts and nests in colonies in trees above standing water.

### 31.1 Cool 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.



Figure 61: Adult

- 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.

## 32 Crested Caracara *Caracara cheriway*

Order *Falconiformes* Family *Falconidae*

The Crested Caracara looks like a hawk with its sharp beak and talons, behaves like a vulture, and is technically a large tropical black-and-white falcon. It is instantly recognizable standing tall on long yellow-orange legs with a sharp black cap set against a white neck and yellow-orange face. The Crested Caracara is a bird of open country and reaches only a few states in the southern U.S. It flies low on flat wings, and routinely walks on the ground.

### 32.1 Cool 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.



Figure 62: Juvenile



Figure 63: Adult

- 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.



Figure 64: Juvenile

### 33 American Kestrel *Falco sparverius*

Order *Falconiformes* Family *Falconidae*

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.

#### 33.1 Cool 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.



Figure 65: Adult male (Northern)

- 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.



Figure 66: Female (Northern)

## 34 Peregrine Falcon *Falco peregrinus*

Order *Falconiformes* Family *Falconidae*

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.

### 34.1 Cool 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.



Figure 67: Adult

- 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.

### 35 Osprey *Pandion haliaetus*

Order *Accipitriformes* Family *Pandionidae*

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.



Figure 68: Juvenile



Figure 69: Adult

### 35.1 Cool 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,

- one Osprey flew 2,700 miles
- —from Martha's Vineyard, Massachusetts, to French Guiana, South America.
- 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" (avis prede). Some wordsmiths trace the name even further back, to the Latin for "bone-breaker"—ossifragus.
- .
- 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.



Figure 70: Adult

## 36 Bald Eagle *Haliaeetus leucocephalus*

Order *Accipitriformes* Family *Accipitridae*

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.

### 36.1 Cool 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. See an example
  - here
  - .
- Had Benjamin Franklin prevailed, the U.S. emblem might have been the Wild Turkey. In 1784, Franklin disparaged the national bird's thieving



Figure 71: Adult

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

- King Bird
- not bigger than a Sparrow attacks him boldly and drives him out of the District."
- 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.



Figure 72: Juvenile

## 37 Northern Harrier *Circus hudsonius*

Order *Accipitriformes* Family *Accipitridae*

The Northern Harrier is distinctive from a long distance away: a slim, long-tailed hawk gliding low over a marsh or grassland, holding its wings in a V-shape and sporting a white patch at the base of its tail. Up close it has an owlish face that helps it hear mice and voles beneath the vegetation. Each gray-and-white male may mate with several females, which are larger and brown. These unusual raptors have a broad distribution across North America.

### 37.1 Cool 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.



Figure 73: Adult male

- 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.

## 38 Coopers Hawk *Accipiter cooperii*

Order *Accipitriformes* Family *Accipitridae*



Figure 74: Adult female

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).

### 38.1 Cool 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



Figure 75: Adult

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.

## 39 Golden Eagle *Aquila chrysaetos*

Order *Accipitriformes* Family *Accipitridae*

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



Figure 76: Immature

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.

### 39.1 Cool 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.



Figure 77: Adult

- 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 hand-outs 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.



Figure 78: Immature

## 40 Turkey Vulture *Cathartes aura*

Order *Cathartiformes* Family *Cathartidae*

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.

### 40.1 Cool 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.

## 41 California Condor *Gymnogyps californianus*

Order *Cathartiformes* Family *Cathartidae*

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



Figure 79: Adult (Northern)



Figure 80: Adult (Northern)

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.



Figure 81: Adult

### 41.1 Cool 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
  - cuntur
  - , which originated from the Inca name for the Andean Condor. Their scientific name,
  - *Gymnogyps californianus*
  - , comes from the Greek words
    - *gymnos*
    - , meaning naked, and refers to the head, and
    - *gyps*
    - meaning vulture;
    - *californianus*
    - is Latin and refers to the birds' range.



Figure 82: Adult

## 42 Clapper Rail *Rallus crepitans*

Order *Gruiformes* Family *Rallidae*

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.

### 42.1 Cool 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.



Figure 83: Adult

- 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.

## 43 Sora *Porzana carolina*

Order *Gruiformes* Family *Rallidae*

A descending whinny emanates from the depths of cattails and rushes, but the source of this sound rarely shows itself. This secretive brown-and-gray marsh bird is a Sora, but drab it is not. When it finally pokes its head out of the reeds its bright yellow bill might have you thinking about Halloween candy corns. The Sora walks slowly through shallow wetlands a bit like a chicken that has had too much coffee, nervously flicking its tail and exposing the white feathers below.

### 43.1 Cool 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



Figure 84: Adult



Figure 85: Adult

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.



Figure 86: Adult

## 44 Purple Gallinule *Porphyrio martinica*

Order *Gruiformes* Family *Rallidae*

Lurking in the marshes of the extreme southeastern U.S. lives one of the most vividly colored birds in all of North America. Purple Gallinules combine cherry red, sky blue, moss green, aquamarine, indigo, violet, and school-bus yellow, a color palette that blends surprisingly well with tropical and subtropical wetlands. Watch for these long-legged, long-toed birds stepping gingerly across water lilies and other floating vegetation as they hunt frogs and invertebrates or pick at tubers.

### 44.1 Cool 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,



Figure 87: Adult

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.



Figure 88: Juvenile

## 45 American Coot *Fulica americana*

Order *Gruiformes* Family *Rallidae*

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.

### 45.1 Cool 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.



Figure 89: Adult

- The oldest known American Coot lived to be at least 22 years 4 months old.



Figure 90: Adult

## 46 Whooping Crane *Grus americana*

Order *Gruiformes* Family *Gruidae*

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.



Figure 91: Adult

### 46.1 Cool 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.



Figure 92: Adults

## 47 American Golden-Plover *Pluvialis dominica*

Order *Charadriiformes* Family *Charadriidae*

A large shorebird of pastures, open ground, and mudflats, the American Golden-Plover makes one of the longest migratory journeys of any shorebird. It breeds on the high Arctic tundra of Alaska and Canada and winters in the grasslands of central and southern South America.



Figure 93: Breeding male

### 47.1 Cool Facts

- The American Golden-Plover has a long, circular migration route. In the fall it flies offshore from the East Coast of North America nonstop to South America. On the return in the spring it passes primarily through the middle of North America to reach its Arctic breeding grounds.
- Adult American Golden-Plovers leave their Arctic breeding grounds in early summer, but juveniles usually linger until late summer or fall. Some adults arrive on the wintering grounds in southern South America before the last juveniles have left the Arctic.
- The oldest American Golden-Plover was at least 13 years old, when it was recaptured and rereleased during a banding operation in Alaska.

## 48 Killdeer *Charadrius vociferus*

Order *Charadriiformes* Family *Charadriidae*

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



Figure 94: Breeding female



Figure 95: Adult

#### 48.1 Cool Facts

- Killdeer get their name from the shrill, wailing

- killdeer
- call they give so often. Eighteenth-century naturalists also noticed how noisy Killdeer are, giving them names such as the Chattering Plover and the Noisy Plover.
- 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. Matting 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.

## 49 American Oystercatcher *Haematopus palliatus*

Order *Charadriiformes* Family *Haematopodidae*

A boldly patterned shorebird with red-yellow eyes and a vivid red-orange bill, American Oystercatchers survive almost exclusively on shellfish—clams, oysters, and other saltwater molluscs. Because of this specialized diet, oystercatchers live only in a narrow ecological zone of saltmarshes and barrier beaches. Along much of the Pacific Coast they are replaced by the similar but all-dark



Figure 96: Adult

Black Oystercatcher. American Oystercatchers are numerous but sensitive to development and traffic on the beaches where they nest; they are on Partners in Flight's Yellow Watch List.



Figure 97: Adult

## 49.1 Cool 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.

## 50 Black-necked Stilt *Himantopus mexicanus*

Order *Charadriiformes* Family *Recurvirostridae*

Black-necked Stilts are among the most stately of the shorebirds, with long rose-pink legs, a long thin black bill, and elegant black-and-white plumage that make them unmistakable at a glance. They move deliberately when foraging, walking slowly through wetlands in search of tiny aquatic prey. When disturbed, stilts are vociferous, to put it mildly, and their high, yapping calls carry for some distance.

## 50.1 Cool Facts

- Five species of rather similar-looking stilts are recognized in the genus
- *Himantopus*
- . They have the second-longest legs in proportion to their bodies of any bird, exceeded only by flamingos.



Figure 98: Juvenile



Figure 99: Adult (Black-necked)

- The Hawaiian subspecies of Black-necked Stilt (
- knudseni

- ) has the black of its neck reaching much farther forward than the mainland forms. Habitat loss and hunting led to a sharp decline in its numbers. The few freshwater wetlands found on the Hawaiian Islands are its main habitat. Its name in the Hawaiian language is Aeo, which means "one standing tall."
- 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."



Figure 100: Adult (White-backed)

## 51 American Avocet *Recurvirostra americana*

Order *Charadriiformes* Family *Recurvirostridae*

The American Avocet takes elegance to a new level. This long-legged wader glides through shallow waters swishing its slender, upturned bill from side to

side to catch aquatic invertebrates. It dons a sophisticated look for summer with a black-and-white body and a rusty head and neck. During the winter the head and neck turn a grayish white, but the bird loses none of its elegance as it forages along coastal waters or rests while standing on one leg.



Figure 101: Breeding adult

### 51.1 Cool 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.



Figure 102: Nonbreeding

## 52 Spotted Sandpiper *Actitis macularius*

Order *Charadriiformes* Family *Scolopacidae*

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.

### 52.1 Cool 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



Figure 103: Breeding adult

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 recaught and rereleased during banding operations in New York.



Figure 104: Juvenile

## 53 Ruddy Turnstone *Arenaria interpres*

Order *Charadriiformes* Family *Scolopacidae*

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.

### 53.1 Cool Facts

- For shorebirds like the Ruddy Turnstone, getting fat is critical. Unlike humans, which use carbohydrates as fuel, birds use fat to power their



Figure 105: Breeding adult

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.



Figure 106: Nonbreeding adult

## 54 Dunlin *Calidris alpina*

Order *Charadriiformes* Family *Scolopacidae*

Dazzling in its breeding finery, with vivid rusty back and black belly patch, the Dunlin was once called the Red-backed Sandpiper. It's now named for its nonbreeding plumage, a mousy gray-brown or "dun" color. Dunlin are an abundant species that nests around the world's arctic regions. They winter in large flocks along bays, estuaries, and coastlines. They have notably long, curved bills but they don't probe deeply into mud; instead they tend to feed on invertebrates just barely below the surface.



Figure 107: Breeding adult

### 54.1 Cool Facts

- The name Dunlin comes from
- dunling
- , the earliest known English name of the species, which dates back at least as far as 1531.
- Dunling
- is a compound of the English word
- dun
- (meaning gray-brown) and the diminutive
- -ling
- . So the name Dunlin essentially means “little brown job.”
- 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.



Figure 108: Nonbreeding adult

## 55 Wilsons Snipe *Gallinago delicata*

Order *Charadriiformes* Family *Scolopacidae*

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.

### 55.1 Cool 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



Figure 109: Adult

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.



Figure 110: Adult male

## 56 American Woodcock *Scolopax minor*

Order *Charadriiformes* Family *Scolopacidae*

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

### 56.1 Cool Facts

- The male woodcock's evening display flights are one of the magical natural sights of springtime in the East. He gives buzzy
- peent
- calls from a display area on the ground, then flies upward in a wide spiral. As he gets higher, his wings start to twitter. At a height of 200–350 feet



Figure 111: Adult

the twittering becomes intermittent, and the bird starts to descend. He zigzags down, chirping as he goes, then lands silently (near a female, if she is present). Once on the ground, he resumes peenting and the display starts over again.

- 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.



Figure 112: Adult

## 57 Laughing Gull *Leucophaeus atricilla*

Order *Charadriiformes* Family *Laridae*

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.



Figure 113: Breeding adult

### 57.1 Cool 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.

## 58 Ring-billed Gull *Larus delawarensis*

Order *Charadriiformes* Family *Laridae*



Figure 114: Nonbreeding adult

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.

### 58.1 Cool 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."



Figure 115: Breeding adult

- 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.

## 59 Herring Gull *Larus argentatus*

Order *Charadriiformes* Family *Laridae*

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



Figure 116: Nonbreeding adult

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.

### 59.1 Cool 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.



Figure 117: Breeding adult (American)

- 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.



Figure 118: Nonbreeding adult (American)

## 60 Least Tern *Sternula antillarum*

Order *Charadriiformes* Family *Laridae*

The smallest of American terns, the Least Tern is found nesting on sandy beaches along the southern coasts of the United States and up the major river systems far into the interior of the continent.

### 60.1 Cool Facts

- The Least Tern prefers sandy beaches for nesting, but it will use a flat gravel roof of a building. On sunny days the hot tar showing through the gravel can burn the feet of chicks or become stuck in their down.
- 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.

## 61 Caspian Tern *Hydroprogne caspia*

Order *Charadriiformes* Family *Laridae*



Figure 119: Breeding adult



Figure 120: Breeding adult

As large as a big gull, the Caspian Tern is the largest tern in the world. Its large coral red bill makes it one of the most easily identified terns throughout its worldwide range.



Figure 121: Breeding adult

### 61.1 Cool Facts

- The Caspian Tern aggressively defends its breeding colony. It will pursue, attack, and chase potential predatory birds, and can cause bloody wounds on the heads of people who invade the colony. The entire colony will take flight, however, when a Bald Eagle flies overhead, exposing the chicks to predation from gulls.
- 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.
- Young Caspian Terns appear to have a difficult time learning to catch fish efficiently. They stay with their parents for long periods of time, and are fed by them even on the wintering grounds. Many young terns do not return to the nesting grounds for several years, remaining instead on the wintering areas.
- The oldest recorded wild Caspian Tern was at least 29 years, 7 months old when it was found in Louisiana in 1989. It had been banded in Michigan in 1959. The average life span of Great Lakes Caspian Terns is estimated to be 12 years.



Figure 122: Breeding adult

## 62 Common Murre *Uria aalge*

Order *Charadriiformes* Family *Alcidae*

An abundant, penguin-like bird of the cooler northern oceans, the Common Murre nests along rocky cliffs and spends its winter at sea.

### 62.1 Cool Facts

- In the Atlantic, some populations include "bridled" or "ringed" individuals, which have a white eye-ring and a white line extending backward from the eyes. Bridled birds are more common farther north.
- The high degree of variation in color and markings of Common Murre eggs may allow parent murres to recognize their own egg when they return to the colony from time at sea.
- The egg of a Common Murre is so pointed at one end that when placed on a flat surface and pushed, it rolls around in a circle. Such a shape may help keep the egg from rolling off of its nesting shelf.
- The oldest recorded Common Murre was at least 27 years, 1 month old, when it was spotted in the wild in California in 2009; the same state where it had been banded in 1985.



Figure 123: Breeding "Bridled" form



Figure 124: Nonbreeding

### 63 Black Tern *Chlidonias niger*

Order *Charadriiformes* Family *Laridae*

An outlier in a world of white seabirds, breeding Black Terns are a handsome mix of charcoal-gray and jet black. Their delicate form and neatly pointed wings provide tremendous agility as these birds flutter and swoop to pluck fish from the water's surface or veer to catch flying insects, much as a swallow does. Black Terns nest in large freshwater marshes, in small, loose colonies. They winter in flocks along tropical coastlines. In the last half-century, this species has lost about half its North American population.



Figure 125: Breeding adult

### 63.1 Cool 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 *Chlidonias*.
- On several occasions, stray White-winged Terns have spent the summer in North America and nested with Black Terns, in at least one case producing hybrid offspring.
- 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.



Figure 126: Breeding adult

## 64 Black Skimmer *Rynchops niger*

Order *Charadriiformes* Family *Laridae*

A long-winged bird with stark black-and-white plumage, the Black Skimmer has a unique grace as it forages in flight. Skimmers feed by opening the bill and dropping the long, narrow lower mandible into the water, skimming along until they feel a fish. Then they relax the neck, quickly closing their jaws and whipping the fish out of the water. Because they feed by essentially by touch, they can even forage at night. The world's three species of skimmers are the only birds on earth that feed in this manner.

### 64.1 Cool 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."



Figure 127: Breeding adult

- 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.

## 65 Tufted Puffin *Fratercula cirrhata*

Order *Charadriiformes* Family *Alcidae*

The Tufted Puffin is a seabird of the open waters, islands, and coastal cliffs of the north Pacific. It is larger than other puffin species and distinctive in appearance, with a bold white "face-mask" and golden head plumes in the breeding season.

### 65.1 Cool 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.



Figure 128: Breeding adult



Figure 129: Breeding

- 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.



Figure 130: Breeding

## 66 Mourning Dove *Zenaida macroura*

Order *Columbiformes* Family *Columbidae*

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.

### 66.1 Cool 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.



Figure 131: Adult

- 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.

## 67 Common Ground-Dove *Columbina passerina*

Order *Columbiformes* Family *Columbidae*

A dove the size of a sparrow, the Common Ground-Dove forages in dusty open areas, sometimes overshadowed by the grass clumps it is feeding beneath. Its dusty plumage is easy to overlook until the bird springs into flight with a soft rattling of feathers and a flash of reddish-brown in the wings. These small, attractive doves are common across the southernmost parts of the U.S. from California to Florida.



Figure 132: Adult



Figure 133:

### 67.1 Cool 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
- *Columbina*
- , which means little dove, and in the species name
- *passerina*
- , which means sparrow.
- 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.

## 68 Rock Pigeon *Columba livia*

Order *Columbiformes* Family *Columbidae*

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.



Figure 134:



Figure 135:

### 68.1 Cool 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
- Beagle
- . His observations on the great variety of pigeon breeds, and the huge differences found between captive breeds and wild pigeons, helped him formulate some aspects of his theory of evolution.
- 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.

## 69 Black-billed Cuckoo *Coccyzus erythrophthalmus*

Order *Cuculiformes* Family *Cuculidae*

Uncommon and elusive, the Black-billed Cuckoo skulks around densely wooded eastern forests and thickets. Its staccato can be heard day and night, but getting a look at its slender brown body and namesake black bill may take a bit of patience. If it pops into view, notice its red eye ring and small white tips on the underside of its tail feathers. On the breeding grounds, this ardent caterpillar-eater makes quick work of tent caterpillars and webworms.



Figure 136:



Figure 137: Adult

### 69.1 Cool 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.



Figure 138: Adult

## 70 Greater Roadrunner *Geococcyx californianus*

Order *Cuculiformes* Family *Cuculidae*

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.



Figure 139: Adult

### 70.1 Cool 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.



Figure 140: Adult

## 71 Barn Owl *Tyto alba*

Order *Strigiformes* Family *Tytonidae*

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.



Figure 141: Adult

### 71.1 Cool 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.



Figure 142: Adult

## 72 Great Horned Owl *Bubo virginianus*

Order *Strigiformes* Family *Strigidae*

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.



Figure 143: Adult (Great Horned)

### 72.1 Cool 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.



Figure 144: Adult (Magellanic)

## 73 Snowy Owl *Bubo scandiacus*

Order *Strigiformes* Family *Strigidae*

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.

### 73.1 Cool 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



Figure 145: Adult male

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.



Figure 146: Adult female/immature male

## 74 Barred Owl *Strix varia*

Order *Strigiformes* Family *Strigidae*

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.



Figure 147: Adult (Northern)

#### 74.1 Cool 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.



Figure 148: Adult (Northern)

## 75 Western Screech-Owl *Megascops kennicottii*

Order *Strigiformes* Family *Strigidae*

A short series of high toots accelerating through the night announces the presence of a Western Screech-Owl. These compact owls—not much taller than a standard pair of binoculars—hunt in woods and deserts of western North America, where their wide-ranging diet includes everything from worms and crayfish to rats and bats. Found in urban parks and residential areas as well as wilder places, Western Screech-Owls nest in tree cavities, and will readily take to backyard nest boxes.

### 75.1 Cool Facts

- Oddly enough, the Western Screech-Owl doesn't really screech; it makes an accelerating series of hollow toots. The "screech" part of its name better suits the closely related Eastern Screech-Owl, whose primary sound is a descending whinny.
- The diminutive Western Screech-Owl is a predator to be reckoned with: it occasionally takes prey bigger than its own body, including cottontail rabbits. At other times they've been seen eating bats, insects and earthworms, which they collect from rainy roads and even compost piles.
- Western Screech-Owls sometimes perch at the entrance of their roost holes during the day, but they remain nearly invisible by pressing their head and



Figure 149: Adult

body feathers against the tree to blend in.

- A pair of captive Western Screech-Owls lived to be 19 years old. The longest lifespan recorded in the wild is at least 13 years: a bird banded in Claremont, California, in 1926 and recovered there in 1939.

## 76 Eastern Screech-Owl *Megascops asio*

Order *Strigiformes* Family *Strigidae*

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.

### 76.1 Cool 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.



Figure 150: Adult



Figure 151: Adult gray morph (Northern)

- 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
- 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.

## 77 Northern Cardinal *Cardinalis cardinalis*

Order *Passeriformes* Family *Cardinalidae*

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.



Figure 152: Adult red morph (Northern)



Figure 153: Male

### 77.1 Cool 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.



Figure 154: Female

## 78 Indigo Bunting *Passerina cyanea*

Order *Passeriformes* Family *Cardinalidae*

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.



Figure 155: Breeding male

### 78.1 Cool 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.



Figure 156: Female/immature male

## 79 Painted Bunting *Passerina ciris*

Order *Passeriformes* Family *Cardinalidae*

With their vivid fusion of blue, green, yellow, and red, male Painted Buntings seem to have flown straight out of a child's coloring book. Females and immatures are a distinctive bright green with a pale eyering. These fairly common

finches breed in the coastal Southeast and in the south-central U.S., where they often come to feeders. They are often caught and sold illegally as cage birds, particularly in Mexico and the Caribbean, a practice that puts pressure on their breeding populations.



Figure 157: Adult male

### 79.1 Cool 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,
- nonpareil
- , means “without equal,” a reference to the bird’s dazzling plumage.
- 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

- curb illegal trade
- .
- The oldest recorded wild Painted Bunting was at least 12 years old, as reported from a Florida banding study.



Figure 158: Female/immature male

## 80 Scarlet Tanager *Piranga olivacea*

Order *Passeriformes* Family *Cardinalidae*

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

### 80.1 Cool Facts

- On the wintering grounds in South America the Scarlet Tanager joins mixed species foraging flocks with flycatchers, antbirds, woodcreepers, and resident tropical tanagers.



Figure 159: Breeding male

- 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.



Figure 160: Female

## 81 Bobolink *Dolichonyx oryzivorus*

Order *Passeriformes* Family *Icteridae*

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.

### 81.1 Cool 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,
- *oryzivorus*
- means "rice eating" and refers to this bird's appetite for rice and other grains, especially during migration and in winter.



Figure 161: Breeding male

- 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

- Robert of Lincoln
- . The poem recounts the events of “Bob-o-‘Link’s” nesting season, describing the male’s flashy coat and song, the female’s modest attire and subdued voice, and the six purple-flecked eggs that hatch into nestlings.



Figure 162: Female/nonbreeding male

## 82 Western Meadowlark *Sturnella neglecta*

Order *Passeriformes* Family *Icteridae*

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.

### 82.1 Cool 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.



Figure 163: Breeding adult

- 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,
- *Sturnella*
- (starling-like)
- *neglecta*
- , claiming that most explorers and settlers who ventured west of the Mississippi after Lewis and Clark had overlooked this common bird.
- 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.



Figure 164: Nonbreeding

### 83 Common Grackle *Quiscalus quiscula*

Order *Passeriformes* Family *Icteridae*

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.



Figure 165: Adult male

### 83.1 Cool Facts

- Those raggedy figures out in cornfields may be called scarecrows
- , but grackles are the #1 threat to corn. They eat ripening corn as well as corn sprouts, and their habit of foraging in big flocks means they have a multimillion dollar impact. Some people have tried to reduce their effects by spraying a foul-tasting chemical on corn sprouts or by culling grackles at their roosts.
- 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.



Figure 166: Female

## 84 Baltimore Oriole *Icterus galbula*

Order *Passeriformes* Family *Icteridae*

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.



Figure 167: Adult male

#### 84.1 Cool 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.



Figure 168: Adult female

## 85 Red Crossbill *Loxia curvirostra*

Order *Passeriformes* Family *Fringillidae*

A fascinating finch of coniferous woodlands, the Red Crossbill forages on nutritious seeds in pine, hemlock, Douglas-fir, and spruce cones. Their specialized bills allow them to break into unopened cones, giving them an advantage

over other finch species. Because conifers produce seeds unpredictably, Red Crossbills sometimes wander (or “irrupt”) far beyond their usual range. They nest wherever and whenever they find abundant food, sometimes even in winter. Several types of Red Crossbill exist; they each have different calls, feed on particular conifer species, and might represent distinct species.



Figure 169: Adult male

### 85.1 Cool 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.



Figure 170: Female

## 86 American Goldfinch *Spinus tristis*

Order *Passeriformes* Family *Fringillidae*

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.

### 86.1 Cool Facts

- American Goldfinches are the only finch that molts its 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.



Figure 171: Breeding male

- 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.



Figure 172: Nonbreeding male

## 87 Evening Grosbeak *Coccothraustes vespertinus*

Order *Passeriformes* Family *Fringillidae*

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.

### 87.1 Cool 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.



Figure 173: Adult male

- 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
  - Project FeederWatch
  - you can keep track of visits by these and other winter birds—and the data you record will help scientists keep track of bird populations.
- 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.



Figure 174: Female/immature male

## 88 House Finch *Haemorhous mexicanus*

Order *Passeriformes* Family *Fringillidae*

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.

### 88.1 Cool 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



Figure 175: Adult male

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.

## 89 Pine Siskin *Spinus pinus*

Order *Passeriformes* Family *Fringillidae*

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



Figure 176: Female/immature male

flight. Flocks are gregarious, and you may hear their insistent wheezy twitters before you see them.



Figure 177: Adult (Northern)

## 89.1 Cool 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
- 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
- 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.
- Learn more about Pine Siskin movements at Project FeederWatch
- .

## 90 House Sparrow *Passer domesticus*

Order *Passeriformes* Family *Passeridae*

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.



Figure 178: Adult male (Chiapas)



Figure 179: Breeding male

### 90.1 Cool 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.

## 91 European Starling *Sturnus vulgaris*

Order *Passeriformes* Family *Sturnidae*

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.



Figure 180: Female



Figure 181: Breeding adult

### 91.1 Cool 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.

## 92 Chuck-wills-widow *Antrostomus carolinensis*

Order *Caprimulgiformes* Family *Caprimulgidae*



Figure 182: Nonbreeding

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.

### 92.1 Cool 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.

## 93 Common Nighthawk *Chordeiles minor*

Order *Caprimulgiformes* Family *Caprimulgidae*

On warm summer evenings, Common Nighthawks roam the skies over tree-tops, grasslands, and cities. Their sharp, electric



Figure 183: Adult



Figure 184: Adult

### 93.1 Cool 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



Figure 185: Adult

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.



Figure 186: Adult

## 94 Chimney Swift *Chaetura pelagica*

Order *Caprimulgiformes* Family *Apodidae*

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.

### 94.1 Cool 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
- North American Chimney Swift Nest Site Research Project
- .
- Chimney Swifts are among the most aerial of birds, flying almost constantly except when roosting overnight and nesting. When they do come



Figure 187:

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 70F 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.



Figure 188:

## 95 Belted Kingfisher *Megaceryle alcyon*

Order *Coraciiformes* Family *Alcedinidae*

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.

### 95.1 Cool 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



Figure 189: Female

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.

## 96 Red-headed Woodpecker *Melanerpes erythrocephalus*

Order *Piciformes* Family *Picidae*



Figure 190: Male

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.

### 96.1 Cool 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.



Figure 191: Adult

- 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 Song of Hiawatha
- , telling how a grateful Hiawatha gave the bird its red head in thanks for its service.
- 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.

## 97 Yellow-bellied Sapsucker *Sphyrapicus varius*

Order *Piciformes* Family *Picidae*



Figure 192: Juvenile

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 stuttered drumming.

### 97.1 Cool 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



Figure 193: Male

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.

## 98 Downy Woodpecker *Dryobates pubescens*

Order *Piciformes* Family *Picidae*



Figure 194: Female

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.

### 98.1 Cool 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.



Figure 195: Male (Eastern)

- 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.

## 99 Northern Flicker *Colaptes auratus*

Order *Piciformes* Family *Picidae*

Northern Flickers are large, brown woodpeckers with a gentle expression and handsome black-scalloped plumage. On walks, don't be surprised if you scare one up from the ground. It's not where you'd expect to find a woodpecker, but flickers eat mainly ants and beetles, digging for them with their unusual, slightly curved bill. When they fly you'll see a flash of color in the wings – yellow if you're in the East, red if you're in the West – and a bright white flash on the rump.



Figure 196: Male (Pacific)



Figure 197: Male (Yellow-shafted)

### 99.1 Cool 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.

## 100 Pileated Woodpecker *Dryocopus pileatus*

Order *Piciformes* Family *Picidae*

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.

### 100.1 Cool 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.



Figure 198: Male (Red-shafted)



Figure 199: Female

- 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.



Figure 200: Male

## 101 Olive-sided Flycatcher *Contopus cooperi*

Order *Passeriformes* Family *Tyrannidae*

The Olive-sided Flycatcher whistles an instantly recognizable

### 101.1 Cool 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.



Figure 201:

- 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.

## 102 Eastern Phoebe *Sayornis phoebe*

Order *Passeriformes* Family *Tyrannidae*

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.



Figure 202:



Figure 203: Adult

### 102.1 Cool 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.



Figure 204: Adult

### 103 Vermilion Flycatcher *Pyrocephalus rubinus*

Order *Passeriformes* Family *Tyrannidae*

A spectacular and distinctive flycatcher, the bright red Vermilion Flycatcher inhabits riparian areas and scrub in the southwestern United States and southward. It perches conspicuously, making periodic flights to nab insect prey.



Figure 205: Adult male

### 103.1 Cool Facts

- The breeding male Vermilion Flycatcher spends about 90 percent of the day perched.
- Twelve subspecies of Vermilion Flycatcher are recognized, including a race with a dark morph that ranges from western Peru to northern Chile. Both male and female of this morph are dark all over, with some males having a few red feathers on the head, and some females having a pinkish wash under the tail. About half of the Vermilion Flycatchers in Lima, Peru are the dark morph, but the proportion decreases as one goes further southward.
- The male Vermilion Flycatcher often seeks to initiate copulation by delivering a butterfly or other showy insect to the female.
- The oldest recorded Vermillion Flycatcher was a male, and at least 4 years, 6 months old when he was shot in Mexico in 1972, the same country where he had been banded.



Figure 206: Adult female

## 104 Great Crested Flycatcher *Myiarchus crinitus*

Order *Passeriformes* Family *Tyrannidae*

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.

### 104.1 Cool 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.



Figure 207:

- 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.



Figure 208:

## 105 Scissor-tailed Flycatcher *Tyrannus forficatus*

Order *Passeriformes* Family *Tyrannidae*

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.



Figure 209: Adult

### 105.1 Cool 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
- A member of the kingbird genus
- Tyrannus
- , Scissor-tailed Flycatchers resemble other kingbirds in behavior, voice, and morphology. Only one other
- Tyrannus
- species—the Fork-tailed Flycatcher—has a dramatically long tail.
- 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.



Figure 210: Juvenile

## 106 Loggerhead Shrike *Lanius ludovicianus*

Order *Passeriformes* Family *Laniidae*

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.

### 106.1 Cool 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



Figure 211: Adult

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.

## 107 Warbling Vireo *Vireo gilvus*

Order *Passeriformes* Family *Vireonidae*



Figure 212: Adult

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.

### 107.1 Cool 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.



Figure 213: Adult (Eastern)

- 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 fledge. 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.

## 108 Red-eyed Vireo *Vireo olivaceus*

Order *Passeriformes* Family *Vireonidae*

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



Figure 214: Adult (Eastern)

head for the Amazon basin, fueled by a summer of plucking caterpillars from leaves in the treetops.



Figure 215: Adult

## 108.1 Cool 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.

## 109 Stellers Jay *Cyanocitta stelleri*

Order *Passeriformes* Family *Corvidae*

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.



Figure 216: Adult



Figure 217: Adult (Coastal)

### 109.1 Cool 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.

## 110 Blue Jay *Cyanocitta cristata*

Order *Passeriformes* Family *Corvidae*

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.

### 110.1 Cool 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.



Figure 218: Adult (Interior)



Figure 219: Adult

- 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

- 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.



Figure 220: Adult

## 111 Black-billed Magpie *Pica hudsonia*

Order *Passeriformes* Family *Corvidae*

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.



Figure 221:

### 111.1 Cool 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
- 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.



Figure 222:

## 112 American Crow *Corvus brachyrhynchos*

Order *Passeriformes* Family *Corvidae*

American Crows are familiar over much of the continent: large, intelligent, all-black birds with hoarse, cawing voices. They are common sights in tree-tops, fields, and roadsides, and in habitats ranging from open woods and empty beaches to town centers. They usually feed on the ground and eat almost anything – typically earthworms, insects and other small animals, seeds, and fruit but also garbage, carrion, and chicks they rob from nests. Their flight style is unique, a patient, methodical flapping that is rarely broken up with glides.

### 112.1 Cool 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



Figure 223: Adult

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 specialized to be a scavenger, 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 16 years 4 months old when it was recaptured and rereleased during a banding operation in New York. A captive crow in New York lived to be 59 years old.



Figure 224: Adult

### 113 Common Raven *Corvus corax*

Order *Passeriformes* Family *Corvidae*

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.



Figure 225: Adult

### 113.1 Cool 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.

## 114 Horned Lark *Eremophila alpestris*

Order *Passeriformes* Family *Alaudidae*

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.

### 114.1 Cool Facts

- Horned Larks inhabit an extensive elevation range, from sea level to an altitude of 13,000 feet. Linnaeus named this bird
- *Alauda alpestris*
- : "lark of the mountains" (it has since been moved to the genus
- *Eremophila*



Figure 226: Adult



Figure 227: Male

- ).
- 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.



Figure 228: Female

## 115 Purple Martin *Progne subis*

Order *Passeriformes* Family *Hirundinidae*

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.



Figure 229: Adult male

### 115.1 Cool 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
- Purple Martin Conservation Association
- supports the study of the Purple Martin and provides information on its website. The
- Purple Martin Society of North America

- also provides information on martins and martin houses.
- 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.



Figure 230: Female/immature male

## 116 Cliff Swallow *Petrochelidon pyrrhonota*

Order *Passeriformes* Family *Hirundinidae*

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.



Figure 231: Adult

### 116.1 Cool 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.



Figure 232: Juvenile

## 117 Barn Swallow *Hirundo rustica*

Order *Passeriformes* Family *Hirundinidae*

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.



Figure 233: Adult (American)

### 117.1 Cool 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
- Forest & Stream

- editorial decrying the waste of bird life. His essay led to the founding of the first Audubon Society.
- 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.



Figure 234: Adult (White-bellied)

## 118 Black-capped Chickadee *Poecile atricapillus*

Order *Passeriformes* Family *Paridae*

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.



Figure 235: Adult

### 118.1 Cool 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
  - dee
  - notes in a
  - chickadee-dee-dee
  - call, the higher the threat level.
- 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.



Figure 236: Adult

## 119 Tufted Titmouse *Baeolophus bicolor*

Order *Passeriformes* Family *Paridae*

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.



Figure 237: Adult

### 119.1 Cool 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.



Figure 238: Adult

## 120 Red-breasted Nuthatch *Sitta canadensis*

Order *Passeriformes* Family *Sittidae*

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



Figure 239: Adult

### 120.1 Cool 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.



Figure 240: Adult female

## 121 White-breasted Nuthatch *Sitta carolinensis*

Order *Passeriformes* Family *Sittidae*

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.

### 121.1 Cool Facts

- The White-breasted Nuthatch is normally territorial throughout the year, with pairs staying together. The male has to spend more time looking



Figure 241: Adult

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.

## 122 Brown Creeper *Certhia americana*

Order *Passeriformes* Family *Certhiidae*



Figure 242: Female

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.

### 122.1 Cool 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



Figure 243: Adult

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.

## 123 Cactus Wren *Campylorhynchus brunneicapillus*

Order *Passeriformes* Family *Troglodytidae*

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



Figure 244: Adult

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.

### 123.1 Cool 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).



Figure 245:

- 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.

## 124 Marsh Wren *Cistothorus palustris*

Order *Passeriformes* Family *Troglodytidae*



Figure 246:

The pugnacious Marsh Wren clings to wetland vegetation, tail cocked and legs splayed, often with each foot wrapped around a different stalk. This rusty-brown wren has black-and-white streaks down its back and a white eyebrow. It sings a rapid-fire gurgling, trilling, and buzzy song from the depths of the marsh where its secretive life unfolds. Under the cover of reeds, males build multiple nests and breed with more than one female. They also destroy eggs and nestlings of other Marsh Wrens and marsh-nesting birds.

### 124.1 Cool 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.



Figure 247:



Figure 248:

**125 Carolina Wren *Thryothorus ludovicianus***

Order *Passeriformes* Family *Troglodytidae*

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



Figure 249: Adult

### 125.1 Cool 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.



Figure 250: Adult

## 126 American Dipper *Cinclus mexicanus*

Order *Passeriformes* Family *Cinclidae*

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.

### 126.1 Cool 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.



Figure 251: Adult

- The oldest American Dipper was over 8 years old, when it was recaptured and rereleased during a banding operation in South Dakota.



Figure 252: Juvenile

## 127 Golden-crowned Kinglet *Regulus satrapa*

Order *Passeriformes* Family *Regulidae*

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.



Figure 253: Adult male

### 127.1 Cool 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.



Figure 254: Adult male

## 128 Ruby-crowned Kinglet *Regulus calendula*

Order *Passeriformes* Family *Regulidae*

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.

### 128.1 Cool 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



Figure 255: Adult

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.

## 129 Blue-gray Gnatcatcher *Polioptila caerulea*

Order *Passeriformes* Family *Polioptilidae*

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



Figure 256: Adult male

and lichens to build small, neat nests, which sit on top of branches and look like tree knots.



Figure 257: Breeding male

## 129.1 Cool 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.

## 130 Wood Thrush *Hylocichla mustelina*

Order *Passeriformes* Family *Turdidae*  
The Wood Thrush's loud, flute-clear

## 130.1 Cool 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



Figure 258: Female/nonbreeding male



Figure 259:

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
- *Hylocichla mustelina*
- translates roughly as "weasel-colored woodland thrush."
- 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.

## 131 American Robin *Turdus migratorius*

Order *Passeriformes* Family *Turdidae*

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.



Figure 260:



Figure 261: Adult male

### 131.1 Cool 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.



Figure 262: Adult

## 132 Brown Thrasher *Toxostoma rufum*

Order *Passeriformes* Family *Mimidae*

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.



Figure 263: Adult

### 132.1 Cool 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

- polyglottis
- ” (the Northern Mockingbird).
- 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.



Figure 264: Adult

### 133 Cedar Waxwing *Bombycilla cedrorum*

Order *Passeriformes* Family *Bombycillidae*

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.



Figure 265: Adult

### 133.1 Cool 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.



Figure 266: Adult

## 134 Yellow Warbler *Setophaga petechia*

Order *Passeriformes* Family *Parulidae*

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.



Figure 267: Adult male (Northern)

### 134.1 Cool 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.



Figure 268: Adult female (Northern)

## 135 Magnolia Warbler *Setophaga magnolia*

Order *Passeriformes* Family *Parulidae*

Many male warblers are black and yellow, but Magnolia Warblers take it up a notch, sporting a bold black necklace complete with long tassels, a black mask, and a standout white wing patch. The female lacks the male's bold accoutrements, instead wearing an elegant white eyering on her gray head, 2 thin white wingbars, and yellow underparts with moderate streaking. These boreal warblers breed in dense stands of conifers and stop off in all types of forests during migration, where they forage at the tips of branches.

### 135.1 Cool 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



Figure 269: Adult male

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.

## 136 Yellow-rumped Warbler *Setophaga coronata*

Order *Passeriformes* Family *Parulidae*

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.

### 136.1 Cool 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.



Figure 270: Female/immature male



Figure 271: Adult male (Myrtle)

- 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.



Figure 272: Adult male (Audubon's)

### 137 Black-throated Green Warbler *Setophaga virens*

Order *Passeriformes* Family *Parulidae*

A delicate, lemon-faced canopy dweller, Black-throated Green Warblers are standouts in a family that does not lack for spectacle. It's a common breeder from northern boreal forests to hardwoods of the southeastern U.S., and even

cypress swamps. Many bird watchers know its distinctive and persistent song, sometimes transcribed as



Figure 273: Adult male

### 137.1 Cool 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.

## 138 Black-and-white Warbler *Mniotilla varia*

Order *Passeriformes* Family *Parulidae*



Figure 274: Adult female

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.

### 138.1 Cool Facts

- The Black-and-white Warbler is the only member of the genus *Mniotilta*
- . The genus name means "moss-plucking," a reference to its habit of probing bark and moss for insects.
- 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



Figure 275: Adult male

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.

## 139 American Redstart *Setophaga ruticilla*

Order *Passeriformes* Family *Parulidae*

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.

### 139.1 Cool 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



Figure 276: Adult female



Figure 277: Adult male

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.



Figure 278: Female

## 140 Kentucky Warbler *Geothlypis formosa*

Order *Passeriformes* Family *Parulidae*

A bird of the deciduous forests of the southeastern United States, the Kentucky Warbler's loud song can be heard far more frequently than the brightly-colored bird can be seen. It stays near the ground and the lower levels of the forest, and nests on the ground.



Figure 279: Adult male

#### 140.1 Cool Facts

- Unlike most songbirds, a male Kentucky Warbler appears to sing only one song type. He will sing the same one throughout his life. Although counter-singing males do not match each other's song types the way many bird species do, a male may match the pitch of a competitor's song.
- The oldest recorded Kentucky Warbler was a female and at least 6 years, 11 months old when she was recaptured and rereleased during banding operations in Maryland.

### 141 Common Yellowthroat *Geothlypis trichas*

Order *Passeriformes* Family *Parulidae*

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

#### 141.1 Cool Facts

- The Common Yellowthroat was one of the first bird species to be catalogued from the New World, when a specimen from Maryland was de-



Figure 280: Female



Figure 281: Adult male

scribed by Linnaeus in 1766.

- Adult Common Yellowthroats sometimes fall prey to carnivorous birds

such as Merlins 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.



Figure 282: Female

## 142 Spotted Towhee *Pipilo maculatus*

Order *Passeriformes* Family *Passerellidae*

The Spotted Towhee is a large, striking sparrow of sun-baked thickets of the West. When you catch sight of one, they're gleaming black above (females are grayish brown), spotted and striped with brilliant white. Their warm rufous flanks match the dry leaves they spend their time hopping around in. The birds can be hard to see in the leaf litter, so your best chance for an unobstructed look at this handsome bird may be in the spring, when males climb into the shrub tops to sing their buzzy songs.



Figure 283: Adult male

### 142.1 Cool 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, iso-

lating 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.



Figure 284: Female/immature

### 143 Black-chinned Sparrow *Spizella atrogularis*

Order *Passeriformes* Family *Passerellidae*

If you hear a ping-pong ball bouncing around rugged and rocky hillsides of the Southwest, look for a Black-chinned Sparrow. These small, long-tailed sparrows are gray with a pink bill and brown wings. Only the male sports the

namesake black chin. They forage on the ground in chaparral and desert scrub, but they don't stay out in the open for long. They spend winters in Mexico.



Figure 285: Breeding male

### 143.1 Cool 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.

## 144 Lark Sparrow *Chondestes grammacus*

Order *Passeriformes* Family *Passerellidae*

This large sparrow may be brown, but its harlequin facial pattern and white tail spots make it a standout among sparrows. Males sing a melodious jumble of churrs, buzzes, and trills reminiscent of an Old World lark. Their courtship is also unusual, involving a hopping and crouching display unlike other sparrows. Lark Sparrows occur in the West and the Great Plains in prairies, grasslands, and pastures with scattered shrubs. In winter, look for them in small flocks in brushy areas.



Figure 286: Female/nonbreeding male



Figure 287: Adult

#### 144.1 Cool 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.



Figure 288: Immature

## 145 Harris Sparrow *Zonotrichia querula*

Order *Passeriformes* Family *Passerellidae*

It's not often that a sparrow takes center stage, but the Harris's Sparrow is a showstopper with its handsome black bib and pink bill. It's North America's largest sparrow and the only songbird that breeds in Canada and nowhere else in the world. In winter it settles in the south-central Great Plains, where it is a backyard favorite. Unfortunately, Harris's Sparrow populations are declining; its restricted range make it vulnerable to habitat loss on the wintering and breeding grounds.

### 145.1 Cool 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



Figure 289: Breeding adult

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 in 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.



Figure 290: Nonbreeding adult

## 146 White-crowned Sparrow *Zonotrichia leucophrys*

Order *Passeriformes* Family *Passerellidae*

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.

### 146.1 Cool 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.



Figure 291: Adult

- 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.



Figure 292: Immature

## 147 Chipping Sparrow *Spizella passerina*

Order *Passeriformes* Family *Passerellidae*

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.

### 147.1 Cool 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



Figure 293: Breeding adult

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.

## 148 Dark-eyed Junco *Junco hyemalis*

Order *Passeriformes* Family *Passerellidae*

Dark-eyed Juncos are neat, even flashy little sparrows that flit about forest floors of the western mountains and Canada, then flood the rest of North America for winter. They're easy to recognize by their crisp (though extremely variable) markings and the bright white tail feathers they habitually flash in flight. One of the most abundant forest birds of North America, you'll see juncos on woodland walks as well as in flocks at your feeders or on the ground beneath them.



Figure 294: Nonbreeding



Figure 295: Adult male (Slate-colored)

### 148.1 Cool 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 north-

ward 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.



Figure 296: Adult male (Oregon)

## 149 Lapland Longspur *Calcarius lapponicus*

Order *Passeriformes* Family *Calcariidae*

A common songbird of the Arctic tundra, the Lapland Longspur winters in open fields across much of the United States and southern Canada.

### 149.1 Cool Facts

- Some winter flocks of Lapland Longspurs have been estimated as large as four million birds. During snowstorms, such flocks sometimes collide with



Figure 297: Breeding male

lighted structures such as radio towers, and thousands can be killed in a single night.

- The Lapland Longspur breeds in the high arctic with continual daylight during the summer, and a breeding male may sing at any hour of the day. Despite the lack of a real dawn, the male tends to sing most in the early morning.
- Longspur refers to the elongated claw of the hind toe.
- The oldest recorded Lapland Longspur was at least 5 years old when it was recaptured and rereleased during banding operations in Alaska.

## 150 Snow Bunting *Plectrophenax nivalis*

Order *Passeriformes* Family *Calcariidae*

Cold and dark winter days come alive with the flurry of black-and-white Snow Buntings tumbling in flight across barren fields and lakeshores. These restless birds flock up by the hundreds in winter, scattering across Canada and the United States. Snow Buntings breed in the high Arctic among rocky crevices where their crisp white plumage blends in with the snowy landscape. In the winter they acquire rusty tones that help them blend in with their winter homes of bare ground and crop stubble.



Figure 298: Nonbreeding/immature male



Figure 299: Breeding male

### 150.1 Cool 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.



Figure 300: Breeding female