

WILD TURKEY - MELEAGRIS GALLOPAVO

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Galliformes Family: Phasianidae Genus: Meleagris
Species: M. gallopavo

Habitat:

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

Distribution:

In US: Populations established in 49 states

In Other Countries: Domestic turkeys were taken to Europe from the New World at the beginning of the 16th century.

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

Species Richness: 6 SUBSPECIES

Population Dynamic: At the beginning of the 20th century the range and numbers of wild turkeys had plummeted due to hunting and loss of habitat. When Europeans arrived in the New World, they were found from Canada to Mexico in the millions. Europeans and their successors knew nothing about the life cycle of the bird and ecology itself as a science would come too late, not even in its infancy until the end of the 19th century whereas heavy hunting began in the 17th century. Deforestation destroyed trees turkeys need to roost in. Destruction of subtypes of environment like prairie grassland in the Midwest, canebrakes in the Southeast, and pine in the desert highlands made them easy prey for predators as there was nowhere to hide or lay eggs.

Evolution and Systematics:

Evolution: Large size and compact bones, plus historical use as food, has produced a better known fossil record for this species than for most other birds. *Rhegminornis calobates*, from early Miocene of Florida, first assigned to Charadriiformes and later to Meleagridinae. A late Miocene partial tibiotarsus from Westmoreland Co., VA, tentatively identified as *Meleagris*, may document a fairly large turkey as early as the late Miocene. *Proagriocharis kimballensis* from late Miocene or early Pliocene (Hemphillian) of Nebraska

Systematics: Six subspecies, that differ chiefly in coloration of rectrix tips, iridescent sheen on lower back and rump, and sheen on mantle and breast. Diagnosis of individuals from current populations may not be possible in many cases given both extensive re-introductions and transplants into previously unoccupied areas. In many locations wild populations have been extirpated or nearly so and non-native populations may form the whole or bulk of currently established populations; some wild populations even exhibit evidence of gene flow with domestic turkeys. Although hybridization and translocation muddies the picture, and mtDNA shows little variation associated with subspecies, there is general agreement between subspecies designation and molecular variation at microsatellite loci.

Number of Species: CHECK SYSTEMATICS AND SPECIES RICHNESS

Number of Genera: CHECK SYSTEMATICS AND SPECIES RICHNESS

Physical Characteristics:

Size and Length: Length: 43.3-45.3 in (110-115 cm) Weight: 88.2-381.0 oz (2500-10800 g)

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

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

General Body Features: The color of the turkey is well adapted to their environment especially the hen. The hen is brown in color which allows it to blend well in hardwood forests. The tom is black and shiny which again allows it to blend in with its habitat, however not as well as the hen.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: They can even see in color which aids in hunting for food and also spotting predators before it spots them! Turkeys are able to spot movement almost one hundred yards away. Also, turkeys surprisingly have very keen hearing even though they do not have any external ears. Turkeys can also smell extremely well which enables them to locate food from a distance.

Dentition: BEAK AND GIZZARD

Special Features of the Limbs and Digits: For their own survival, they have their large size and very sharp talons combined with an ability to run fast, which meant that a predator would be faced with difficult fight and the real chance of some serious injury from a fighting turkey. They also have the ability to fly short distances, such as into the branches of a tree and then wait until the predator left the area. This is also why they roost in small groups at night above the ground, as a defense against predators.

Any Special Internal Anatomy: NONE

Sexual Dimorphisms: The male is substantially larger than the female, and his feathers have areas of red, purple, green, copper, bronze, and gold iridescence. The preen gland (uropygial gland) is also larger in male turkeys compared to female ones. In contrast to the majority of other birds, they are colonized by bacteria of unknown function (*Corynebacterium uropygial*). Females, called hens, have feathers that are duller overall, in shades of brown and gray. Parasites can dull coloration of both sexes; in males, coloration may serve as a signal of health.

Differences Between Juvenile Stage and Adult: Juvenile males are called jakes; the difference between an adult male and a juvenile is that the jake has a very short beard and his tail fan has longer feathers in the middle. The adult male's tail fan feathers will be all the same length. When males are excited, a fleshy flap on the bill expands, and this, the wattles and the bare skin of the head and neck all become engorged with blood, almost concealing the eyes and bill.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Wild Turkeys get around mostly by walking, though they can also run and fly—when threatened, females tend to fly while males tend to run. At sundown turkeys fly into the lower limbs of trees and move upward from limb to limb to a high roost spot. They usually roost in flocks, but sometimes individually. Courting males gobble to attract females and warn competing males. They display for females by strutting with their tails fanned, wings lowered, while making nonvocal hums and chump sounds. Males breed with multiple mates and form all-male flocks outside of the breeding season, leaving the chick-rearing to the females. The chicks travel in a family group with their mother, often combining with other family groups to form large flocks of young turkeys accompanied by two or more adult females. Each sex has an independent pecking order, with a stable female hierarchy and a constantly changing male hierarchy. Wild Turkeys are hunted by coyotes, bobcats, raccoons, mountain lions, Golden Eagles, Great Horned Owls, and people. Nest predators include raccoons, opossums, striped skunks, gray foxes, woodchucks, rat snakes, bull snakes, birds, and rodents.

Locomotion: Most travel by walking, but birds are adept at running, most often to escape predators. In running, neck is sometimes outstretched level with the back. The “take-off” leap is done in two phases, beginning with the breast lowered and knee and tibiotarsal joints flexed. Second phase is carried out by extending the tibiotarsal joint, raising the breast by rotation at the hip, elongation of the neck, extension of toes, opening of wings and spreading of tail. Several short steps are taken followed by 2–3 hops, then a leap upward. After take-off, which can be at steep or small angle, wings beat rapidly until desired height is attained; bird then sets wings and glides to a tree perch or ground landing. Maximum distance a turkey can fly in a single flight is estimated to be approximately 1.6 km; maximum flight speed 95 kph; speeds estimated by following with automobile or radar, 50–88 kph. Swim rarely but adults have been observed to swim by bringing wings close to the body, spreading the tail, stretching the neck forward, and using the legs for propulsion.

Communication and Perception: Male turkeys are called “gobblers” because of their famous call, which is their version of a rooster’s crow. It’s a loud, shrill, descending, throaty jumble of sound that lasts about 1 second. Males often gobble from their treetop roosts, where the sound carries better than on the ground. They use it to attract females and in response to other males—sometimes one male’s call can lead to a group of others joining in. Both males and females cackle as they fly down from roosts, give very short, soft purring calls while traveling on foot, and give a long series of yelps to reassemble a flock after it has become scattered. Young turkeys whistle three or four times to their flockmates when they’re lost.

Home Range and Territoriality: Territoriality is the defense of a particular set of boundaries on the landscape and should not be confused with competition for dominance. This behavior appears to be poorly developed or nonexistent in most subspecies. Male bands thought to be territorial in winter in this dense population, the roost containing one or more male flocks at center of each territory, flocks of a roost independently defending territory. Female bands were not territorial.

Degree of Sociality: Highly gregarious; sociality begins at hatching when brood imprints on hen. After hatching and movement from the nest, hen and brood may remain independent as a group or unite with one or more broods, where

dominance hierarchies develop in intrasexual bands. In late fall/early winter, as yearling males reach and exceed the size of a brood hen, they leave brood hens and female poults to form independent flocks.

Level of Aggression: Fighting begins with mutual threat and progresses to striking with wings and kicking. Eventually one bird grabs the other's beak or snood and birds entwine necks, pushing against each other with breasts. Fights usually end by one bird gaining advantage and getting beak hold on skin of back of opponent's neck. With this hold, winning bird forces opponent's head to ground, until loser is able to twist free.

Migration: Generally accepted as non-migratory; however, season movements in search of hospitable climates and food sources are common in some populations.

Predators:

Predators: Man, raccoon, opossum, striped skunk, grey fox, birds, woodchuck, rodents, bobcat, rat snake, blue snake, coyotes, bobcats, mountain lions, Great Horned Owl, and feral hogs.

Anti-Predator Defenses: NONE

Diet and Nutrition:

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

Juvenile Diet: ^^^^

Special Adaptations for Getting Prey: NONE

Reproduction:

Mode of Reproduction: Polygyny

Mating System: Forms of polygyny most common. Male dominance polygyny with leks in *M. g. intermedia* at high densities. Possibly female defense polygyny (harems) in *M. g. silvestris* and other subspecies inhabiting less open, more forested habitats.

Mating Season: Late-February/Early-March - Late May

Courtship: Two highly stereotyped behavioral elements from males: the gobbling call of fixed intensity, which attracts females or competing males over considerable distances, and the strutting posture with the tail fanned vertically, wings lowered and primaries 3–7 dragging ground, feathers on back elevated, head thrown backward and pressed into interscapular area, bill forward, and crop inflated. Strut continues with a gliding movement of male about a soliciting or nonsoliciting female, with an occasional (or more often at maximum excitement) chump and humm (Drumming; see Sounds: nonvocal). Gobble can be given spontaneously but strutting usually follows appearance of female

Mating: Copulation follows a stereotyped stimulus-response pattern (fixed action pattern). Experiments with domestic turkeys show male can be fully aroused and copulatory attempts elicited by as little as a detached female head in upright position; body alone elicited strut but no copulatory behavior.

Nesting: Wild Turkeys nest on the ground in dead leaves at the bases of trees, under brush piles or thick shrubbery, or occasionally in open hayfields. The female scratches a shallow depression in the soil, about 1 inch deep, 8–11 inches wide, and 9–13 inches long. Wild Turkeys use only the dead leaves or other plant materials already present at the nest site.

Egg-Laying: Clutch Size: 4-17 eggs Number of Broods: 1 brood Egg Length: 1.9-2.7 in (4.9-6.9 cm) Egg Width: 1.6-1.9 in (4.1-4.7 cm) Incubation Period: 25-31 days Nestling Period: 1 day Egg Description: Pale yellowish tan, evenly marked with reddish brown or pinkish spots.

Hatching and Incubation/Gestation: Well-developed and covered with tawny, brown, pinkish, and gray down.

Development: NONE

Parental Care: Only by female, lasts through fall for male poults and extends to early spring for female poults.

Lifespan: 3-5 years

Conservation:

Official Federal Status: Least Concern

Special Statutes in Individual States: NONE

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

2014 State of the Birds Watch List. Wild Turkeys regained and even expanded their range after drastic declines during the nineteenth and early twentieth centuries from hunting and habitat loss. One subspecies disappeared from New England in the mid-nineteenth century, surviving in small numbers in wilderness areas of the Gulf States, the Ozarks, and the Appalachian and Cumberland plateaus. Another subspecies disappeared from parts of Texas, while yet another declined precipitously in numbers throughout the Southwest. In the early twentieth century people tried unsuccessfully to use farm turkeys for restoring wild populations, but in the late 1940s they began to successfully transplant wild-caught turkeys into suitable habitat. No other game bird has responded so well to the efforts of game managers. The birds are popular among hunters; the U.S. Fish and Wildlife Service estimates 21 percent of all U.S. hunters (about 2.5 million people) pursue turkey, making it the second most-sought game after deer. Their expanding populations have made it possible for hunting seasons to be put in place in all 49 states in their range.

Conservation Efforts: ^^^^

Extra Facts:

1. The Wild Turkey and the Muscovy Duck are the only two domesticated birds native to the New World.
2. 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.
3. 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.
4. Male Wild Turkeys provide no parental care. Newly hatched chicks follow the female, who feeds them for a few days until they learn to find food on their own. As the chicks grow, they band into groups composed of several hens and their broods. Winter groups sometimes exceed 200 turkeys.
5. 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.
6. 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.
7. When they need to, Turkeys can swim by tucking their wings in close, spreading their tails, and kicking.

Notable Species:

1. Eastern Wild Turkey (*Meleagris gallopavo silvestris*)
2. Osceola Wild Turkey or Florida Wild Turkey (*M. g. osceola*)
3. Rio Grande wild turkey (*M. g. intermedia*)
4. Merriam's wild turkey (*M. g. merriami*)
5. Gould's wild turkey (*M. g. mexicana*)
6. South Mexican wild turkey (*M. g. gallopavo*)