



Eastern Wild Turkey

(*Meleagris gallopavo silvestris*)

by Mary C. Kennamer

NWTF WILDLIFE BULLETIN No.1



NATIONAL WILD TURKEY FEDERATION



PHOTO BY MATT LINDLER



PHOTO BY JOHN HEIDECCKER

ABOVE: The eastern wild turkey inhabits the eastern half of the United States.

RIGHT: The gobbler exhibits the characteristic red, white and blue head, the black-tipped breast feathers and copper/bronze iridescence.

The eastern wild turkey is the most widely distributed, abundant, and hunted turkey subspecies of the 5 distinct subspecies found in the United States. It inhabits roughly the eastern half of the country. The eastern wild turkey is found in the hardwood and mixed forests from New England and southern Canada to northern Florida and west to Texas, Missouri, Iowa, and Minnesota. It has also been successfully transplanted in California, Oregon, and Washington, states outside its suspected original range.

L.J.P. Vieillot first described and named the eastern subspecies in 1817 using the word *silvestris*, meaning "forest" turkey.

Since the eastern wild turkey ranges the farthest north, individuals can also grow to be among the largest of any of the subspecies. The adult male, called a gobbler or tom, may measure up to 4 feet tall at maturity and weigh more than 20 pounds. Its upper tail coverts, which cover the base of the long tail feathers, are tipped with chestnut brown and tail tips with dark buff or chocolate brown. In contrast, the breast feathers are tipped in black. Other body feathers are characterized by rich, metallic, copper\bronze iridescence.

The primary wing feathers have white and black bars that extend from the outer edge of each all the way to the shaft. Secondary wing feathers have prominent white bars and are edged in white, producing a whitish triangular area on each side of the back when the wings are



Eastern gobbler wings folded on the back show a whitish triangular patch.

Eastern wild turkeys are found in 38 states and two Canadian provinces. It is the most abundant of the five subspecies found in the U.S. and Canada.

folded on the back.

A mature female, called a hen, may be nearly as tall but is usually lighter, weighing between 8 and 12 pounds. Females are similar in color to the males but more brown, and the metallic reflections are less brilliant. Feathers of the hen's breast, flanks, and sides are tipped with brown rather than the black tips of the male. The head of the female is considered feather covered with smaller, dark feathers extending up from the back of the neck. Females lack the caruncles or fleshy protuberances of skin at the base of the front of the neck that are bright red on the male. Beards and spurs are generally considered secondary sex characteristics in males. Beards may be present on about 10 percent of the hens, however, they are thinner and shorter than those of adult males. Spurs on hens are uncommon but, when present, are usually rounded and poorly developed.

The reproductive cycle for the eastern wild turkey usually begins in late February or early March in its southernmost habitats but not until April in northern states such as Vermont and other areas across the northern edge of turkey range. Likewise, the cycle is complete with the hatching of poults by June

or as late as mid-summer further north. Birds that reneest may bring off broods as late as August.

Breeding behavior is triggered primarily by the increasing day length in spring, but unusually warm or cold spells may accelerate or slow breeding activity. This behavior begins while birds may still be in large winter flocks prior to separating as individuals or into small groups.

The basic social organization of these flocks is determined by a pecking order with the most dominate bird at the top and the least on the bottom. Males and females have separate hierarchies, and there can be pecking orders within and between flocks of the same sex; while stable pecking orders within flocks of the same sex seem to be common to all wild turkey subspecies. Turkeys have home ranges, not territories where individuals defend space within a given habitat from other members of the same sex. Instead they fight for dominance recognizing individuals within the pecking order while sharing overlapping home ranges.

Courtship behavior patterns include gobbling and strutting by the males. Gobbling attracts hens to males who court the hens by strutting. If the hen selects the gobbler for mating she crouches, which signals the male to copulate. The first peak of gobbling activity is associated with the beginning of the breeding period when gobblers are searching for hens. The second peak occurs a few weeks later, when most hens begin incubation.

Hens become secretive while searching for a site to nest prior to laying eggs. Laying hens may continue to feed with other hens and mate with gobblers, but this social activity will be away from the nest site.

Nests are shallow depressions formed mostly by scratching, squatting, and laying eggs rather than by purposeful construction. The arrangement of twigs and leaves is minimal in sites chosen for their moderately dense understory which still allows the hen a view

but gives protection from avian predators.

Laying a clutch of 10 - 12 eggs takes about 2 weeks and unincubated eggs are usually covered with leaves. Continuous incubation begins about the time the last egg is laid at which time the hen no longer tries to conceal her eggs when she leaves for short periods to feed.

The hen will incubate for 26 - 28 days sitting quietly and moving about once an hour to turn the eggs. Actual hatching begins with pipping—the poult rotating within the shell, chipping a complete break around the large end of the egg. Hens respond to the pipping sounds by making soft clucks at random, a form of communication which begins to imprint the poults to the hen as she inspects the eggs and turns them. Damp poults clumsily free themselves from the egg but are fully dry and coordinated so they can follow the hen away from the nest within 12 to 24 hours after hatching. This vocal communication between hen and poults still in the eggs is an important part of the hatching process and is critical to survival of the young.

Imprinting is a special form of learning which facilitates the rapid social development of the poults into adults. It's a strong social bond between the hen and her offspring which occurs up to 24 hours after hatching. Imprinting describes the rapid process by which the young poults learn to recognize their species, essential for their survival. It happens only at this time and cannot be reversed.

Day-old poults learn to respond to the hen's putt or alarm call before leaving the nest and respond by freezing or running to hide beneath her. The hen, clucking almost continually, slowly leads her poults away from the nest until within a few hours her pace is

more normal. By now the poults have formed into a brood group that is constantly feeding by pecking at food items, a behavior learned from their mother.

By the second day out of the nest, wild turkey poults are performing most of the characteristic feeding, movement, and grooming behavior patterns. By the end of the first week they are regularly dusting with the hen. By their second week they are able to fly short distances and at the third week they are able to roost in low trees with the hen. The ability to roost in trees is an important event in the brood's development as it removes them from the danger of ground predators. Roosting occurs at the beginning of another phase of rapid development, the acquisition of juvenile plumage and a change in diet from predominantly insects to a higher percentage of plant matter. This phase of behavioral and physical development is



PHOTO BY LARRY PRICE

An eastern hen, darker and duller than the gobbler, with 3 poults about 2 weeks old.



PHOTO BY BILL KINNEY

accompanied by a sharp decline in poult mortality. Poults that survive the first six weeks have a much better chance of surviving to adulthood.

At age 14 weeks, male and female poults are distinguishable by body size and plumage. They have formed separate pecking orders although still dominated by the hen until all males have finally

Courtship behavior patterns include gobbling and strutting by males which, because of the wide distribution of the eastern subspecies, can occur when there is still snow cover.



left the brood group to form their own social units.

By fall, the pecking order of the sibling groups has been established and the young flocks are ready to enter the social organization of the surrounding population. The body growth of juveniles ends by the beginning of winter when the flocks, separated by age and sex class, settle into winter range.

For additional information on this subject refer to **The Wild Turkey Biology and Management**, edited by Jim Dickson. The book is available for \$59.95 from the

National Wild Turkey Federation, by clicking [here](#) or calling 1-800-THE-NWTF.

The **Get in the Game CD-ROM** is also available through the NWTF's online Turkey Shoppe. This CD includes a planting guide and valuable information to help you attract wild turkeys to your land. Ordering information can be found [here](#). And to check out more about the NWTF's **Wild Turkey Woodlands** program to help landowners and hunt clubmembers manage their land for wildlife, click [here](#).