

History

Wild turkeys numbered in the millions nationwide when the first settlers landed at Plymouth Rock and provided a readily available source of food for the table and the market. Like much of our native wildlife, turkey populations were unable to withstand uncontrolled hunting pressures during European settlement. A combination of year around indiscriminate hunting of all ages and sexes, and clearing of forested habitats to create agricultural lands all led to the extirpation of wild turkey flocks from their historical range north of the Ohio River and from most areas in the South and East. By 1920, approximately 250,000 eastern wild turkeys remained in the United States, occupying just 12% of their former range. Only 8 states still had a turkey hunting season, most in the mountainous terrain of the southeastern United States. Turkeys were virtually extirpated from Iowa by 1900; the last verified sighting was made in Lucas County in 1910.

In the early 20th century, trends which lead to the demise of turkey flocks began to be reversed. Most states formed conservation agencies (counterparts to the Iowa Department of Natural Resources) and gave protection to vanishing wildlife. At the same time, unproductive farmlands were abandoned as industrial jobs in growing cities became more attractive. Purchase of state and national forests, reduction in cattle grazing on public forest lands, and wildlife management were factors which led to the development of new turkey habitats in regions where no turkeys existed to populate them.

Most states began turkey restoration programs in the 1920's, first using pen-raised turkeys to produce large numbers of young birds which were released in the wild. These efforts were universally unsuccessful because pen-raised birds had lost their wary instincts which allowed truly wild turkeys to survive in their natural environment. In spite of expenditures of millions of dollars over several decades, no free-ranging turkey populations were produced. Pen-raised turkeys also carry domestic

poultry diseases which can be transmitted to a variety of wild birds.

With the development of the rocket net trap in the 1950's, the history of the wild turkey underwent a dramatic reversal. For the first time, large numbers of wild turkeys became available for transplanting to unoccupied habitats and turkey populations began the long road back from near extinction. By the early 1980's, wild turkey numbers increased to 1.8 million birds in 47 states. Today, there are an estimated 7 million wild turkeys in all the states except Alaska, with over 3 million turkey hunters in the United States.

In Iowa, an aggressive restoration program using wild trapped turkeys from Missouri and Shimek State Forest (Lee County) and Stephens State Forest (Lucas County), resulted in transplanting 3,523 Eastern wild turkeys to 86 different counties at 260 sites between 1965 and 2001. Turkeys from southern Iowa were originally introduced from Missouri in the mid 1960's. This restoration program was paid for by the Iowa sportsman through revenues from the sale of hunting and fishing licenses and an excise tax on the sale of arms and ammunition. The National Wild Turkey Federation (NWTF) also aided Iowa in the restoration efforts.

Eastern turkeys adapted so well to habitat conditions in Iowa that by 1980 the DNR decided to start trading turkeys for other extirpated wildlife. From 1980-2001, 7,501 Iowa turkeys have been traded for 356 prairie chickens, 596 ruffed grouse, over 180 river otters, over 80 sharp-tailed grouse, and over 3.2 million dollars to purchase Iowa habitat with 11 states and 1 Canadian province.

Habitat

Wild turkeys are primarily birds of the forest. The eastern subspecies found in Iowa and most of the United States east of the Missouri River thrives in mature oak-hickory forests native to this region. Turkeys primarily eat nuts, seeds and berries (collectively called mast) produced in greatest abundance in middle-aged to mature stands of oak trees. Turkeys are large, strong-walking birds

capable of covering a range of 1-2 square miles in a day, searching for suitable food items by scratching in leaf litter. These "scratchings" – piles of leaves adjacent to a small plot of bare earth – are characteristic in good turkey habitat and indicate that turkeys have been feeding in the immediate area.



In winter, turkeys rely primarily on mast for food, although in Iowa and other agricultural states they are capable of substituting waste grain in harvested corn and soybean fields, where it is available adjacent to timber. When snow covers their native foods, or mast crops fail, corn fields supply an important supplemental food capable of carrying turkeys through winter stress periods in excellent condition. Turkeys are often seen in crop fields during the winter taking advantage of the waste grain in the fields in Iowa. Large flocks of turkeys observed in crop fields have raised concerns of crop depredation by agricultural producers. Wild turkeys are actually beneficial to crop fields, since they primarily consume insects out of fields during the spring and summer. To address these concerns, a crop depredation

pamphlet was developed by the DNR. For more information on crops and wild turkeys, see the crop depredation pamphlet at: www.iowadnr.com/wildlife/pdfs/turkeybrochure.pdf, or stop in your local DNR wildlife office.

In spring and summer, a turkey's diet switches to a wide variety of seeds, insects and green leafy material. Protein derived from insects is especially important to rapidly growing poults during their first weeks after hatching and to adults replacing feathers after their annual summer molt. Hayfields, restored native grasses, and moderately grazed pastures are excellent producers of insects and are heavily utilized by turkey broods where they are interspersed with suitable forest stands. These grassy areas also provide suitable nesting sites.

Turkeys roost at night in trees year around, except for hens sitting on a nest. Any tree larger than 4 inches in diameter at breast height may serve as a roost tree, but larger, mature trees are most often used. Eastern turkeys shift their nest sites almost daily, seldom roosting in the same tree two nights in succession. Certain areas of their home range (area a turkey occupies throughout a season) may be used more heavily than other locations (e.g. a ridge of large trees near a feeding area or a stand of large evergreen trees during very cold weather).

In Iowa, the abundance of food and nesting areas in non-forested habitats (corn fields, pastures, hayfields, restored native grasses) has allowed turkeys to survive in areas where forests are limited. In traditional turkey range, minimum timber requirements of 10,000 continuous acres of mature forests are commonly thought to be necessary for wild turkeys. Research indicates that areas with a 50:50 ratio of forest with properly managed non-forested habitats is ideal turkey range, and a minimum of 1,000 acres of timber is ideal to allow a turkey population to thrive. Since the restoration of wild turkeys to Iowa, turkeys have been found in small 2-3 acre woodlots, much to surprise of wildlife managers.

Hunting

The eastern wild turkey offers one of the most

challenging hunting experiences available today and appeals only to the most dedicated outdoorsmen. Wild turkeys have extremely keen senses of sight and hearing and are normally able to avoid human contact so successfully that hunters often do not detect their presence. The instincts for survival are most highly developed among adult gobblers, making them among the most sought after trophies in North America today.

Turkeys are hunted during two seasons – spring and fall – which are differentiated by styles of hunting and the primary quarry. Spring gobbler hunting is most widespread because shooting males has no impact on the future growth or dispersal of turkey populations, even at the new release sites. Turkeys are promiscuous, with only the largest, most dominant males obtaining harems of a dozen or more hens. Non-breeding males are thus available to hunters at no cost to the population. Even heavily hunted areas seldom sustain hunting losses of as many as 50% of the adult males. The principal spring hunting method is to locate toms gobbling from the roost at daylight and attempt to call them to the hunter by imitating the yelps, clucks, cackles and whines of a hen ready to mate. Hunters wear camouflage clothing and sit completely motionless for as long as several hours to escape detection by keen-eyed gobblers. Success rates for spring hunters in most states average about 30-40%, but are in the 50-60% range in most of Iowa because of the excellent turkey densities found here. Because 10% of the hens also have beards (the hair-like appendage hanging from a tom's breast), any bearded turkey is legal game in the spring.

Fall turkey hunts usually are allowed only in states with well established turkey populations. In Iowa, the combination of excellent turkey populations and a decrease in fall hunting demand, has allowed a 3 bird bag limit, until the quota is filled. More young poults are produced than survive the rigors of winter and escape from predators to reach the breeding season, thus allowing limited fall hunting before much of this natural mortality takes place. The most common fall hunting technique is to locate a flock of

turkeys, scatter them as widely as possible, and call back broods by imitating the assembly yelps and clucks of the adult hen or kee-kee of lost poults. Gobblers are not particularly interested in finding hens in the fall, making them extremely difficult to call and shoot. Inexperienced young turkeys return readily to the hen and commonly make up 60% or more of fall harvests. Fall hunters also use complete camouflage. The results of Iowa's hunting seasons can be found at: <http://www.iowadnr.com/wildlife/files/trkindex.html>.

Populations

Because of their dependence on variable mast production for food in areas where large forest tracts provide typical turkey habitat, good populations normally average about 10 turkeys per square mile of forest over much of eastern turkey range. In agricultural states like Iowa, the presence of abundant food contributes to densities at least twice this great, and may reach 40-60 turkeys per square mile in the best habitats.

Turkeys breed only in the spring. Hens join harems attached to a dominant gobbler, but may breed with any available male. Nests are poorly formed bowls completely on the ground and contain 6-18 eggs (average 11 per clutch). Hens of all ages attempt to nest, but yearling hens are seldom successful and 80% of the poults will be produced by 2 year old or older hens. Nests have been found in most habitat types from dense forest, brush, grown up pastures, fence lines, to alfalfa fields. Hens incubate 28 days before the eggs hatch. Typically 30-60% of hens will attempt re-nesting after losing a clutch to cold, wet weather or predators, with about 40-60% of the adult hens will eventually hatch a clutch. Hens do all the brood rearing, and life is precarious for newly hatched poults with over half dying in the first 4 weeks. Of the poults surviving to fall, 35% of the young hens will be lost to predators, primarily coyotes. Few young or adult turkeys are lost during the winter in most of Iowa, but starvation may occur where deep snows for a prolonged period keep flocks from moving to food sources. Spring is a major mortality period for both sexes,

many hens are lost to predators after winter flocks break up and breeding activities begin, and toms fall prey primarily to hunters. Annual survival rates average 57% for females and 35% for males.

Range

Iowa's forested habitat totals 2.1 million acres (30% of presettlement acreage, up from 1.6 million acres in 1974) and are separated into 4 reasonably well defined regions – unglaciated northeast Iowa's deep river valleys and steep, high ridges; southern Iowa's rolling hills; western Iowa's narrow belt of sharp, loess hills running along the southern two-thirds of the state, and several isolated river drainages in north and east-central Iowa (Little Sioux, Raccoon, Des Moines, Skunk, Iowa, Cedar, Wapsipinicon, and Maquoketa Rivers). Restorations by the DNR have returned wild turkeys to about 95% of the remnant timber stands in the state. All the major river corridors in Iowa support turkey populations, and small pockets of wild turkeys exist sporadically throughout the state in small woodlots.

Iowa Wild Turkey Range



For more information hunting seasons and zones in your area, contact your local wildlife biologist, conservation officer, or the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, IA, 50319 <http://www.iowadnr.com/wildlife/files/trkindex.html>.

EASTERN WILD TURKEY

(Meleagris gallopavo)



Biological Facts

- Weight:** males 17-30 lbs; females 8-12 lbs.
- Length:** males 42-48 inches; females 32-38 inches.
- Flight and ground speed:** Max. ground speed: 25 mph; max. flight speed 55 mph.
- Habitat:** woodland habitats mixed with agricultural fields.
- Foods:** waste grains, insects, wild fruits, and tree nuts.
- Life expectancy:** females 57%, males 35%.
- Mating:** polygamous, hens typically mate with dominant male.
- Nesting period:** April-June.
- Nests:** usually shallow depressions in the ground.
- Clutch size:** Avg. 11 eggs (range 6-18)
- Eggs:** Tan of buffy white, evenly marked with small reddish spots; ovate (1 3/4" x 2 1/2").
- Incubation:** 28 days.
- Young:** precocial; leave nest immediately and can fly to roost in trees at 2 weeks.
- Number broods per year:** 1; 30-60% will re-nest.
- Nest success:** 40-60%.