



# The Ferrum Nature Society Bulletin

Dedicated to the appreciation and conservation of our natural world

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## Nature's events:

November sees winter creeping closer towards us with frosty nights and occasional days with strong winds from the north (maybe even snow flurries!).



The hillsides are turning from the gold, orange, and red hues of October to the brown and maroon of lingering oak leaves. Asian ladybugs and mice try to move indoors for shelter.

## Sky calendar:

**Full moon** - November 13

**Planets** - Look for the bright planets Venus and Jupiter near the moon as it rises. Saturn appears near the moon later this month.

**Leonid meteor shower** - One of the best meteor showers of the year peaks in the early morning hours of November 17. Look towards the constellation Leo in the Northeast.

## Mast and Wildlife

Zach Wright

Mast is fruit produced by plants that is consumed by wildlife. Mast is classified as either hard mast or soft mast. Hard mast includes edible nuts produced by trees, while soft mast consists of drupes, berries, and other fleshy fruits. Mast may be available for wildlife throughout the year, but the peak of mast production typically occurs in the fall. During the fall and winter months, mast is the main staple in the diet of many wildlife species, so it is very important for sustaining healthy wildlife populations.

After the introduction of the chestnut blight (*Endothia parasitica*), a major mast producer was completely lost from the eastern deciduous forest. The American chestnut (*Castanea dentata*) was the most dominant tree species found in the forest and its nuts comprised a large percentage of wildlife diets throughout the fall and winter months. The loss of the American chestnut resulted in what was thought to be a huge loss of food availability for wildlife in eastern forests. Although mast did decrease with the loss of the chestnut, the eastern forests were able to compensate for the loss of the chestnut by an increase in oaks (*Quercus*) and other hard mast-producing tree species, such as hickories (*Carya*), and American beech (*Fagus grandifolia*). Species such as blackgum (*Nyssa sylvatica*), dogwood (*Cornus florida*), serviceberry (*Amelanchier arborea*), and persimmon (*Diospyros virginiana*) provide a large amount of soft mast in the fall for wildlife in Virginia.

Wildlife population densities and mast production are closely correlated to each other as found in an experiment conducted by the West Virginia Department of Natural Resources. This experiment was based on large game species, which included black bear (*Ursus americanus*), white-tailed deer (*Odocoileus virginianus*), and eastern wild turkey (*Meleagris gallopavo*). They found that hard mast was more closely correlated with the harvest of these species than soft mast. Their results also showed that during years of high hard mast production, fewer deer, turkey, and bear were harvested, because these animals did not congregate around alternative food sources (e.g., food plots). They also concluded that oaks are the most important woody plant in relation to six major game species in the southern Appalachians.

When managing for wildlife species, mast production is one of the most important variables to

consider when evaluating timber management strategies. When white-tailed deer are a target species for planning silvicultural practices, 50% of large forested tracts should be made up of mast-bearing oaks. Thinning can be used to reach this desired stocking by removing larger overstory trees and leaving vigorous stems of mast-producing species. It is best to leave a variety of different mast-producing species to reduce the possibility of complete mast failure of individual species. During years of low acorn production from oaks, other species such as hickories, will compensate for the loss and provide alternative mast sources.



Pokeweed (*Phytolacca americana*) berries.

The relationship between mast-producing tree species and wildlife is not one-sided. In this relationship, the tree species also benefit from the dispersal of seed through defecation of small-seeded fruits, such as persimmon or blackberry, and lost cached crops stored by various wildlife species, including squirrels, chipmunks, and blue jays.

# The Eastern Wild Turkey - An Amazing Conservation Success Story

Charles Facchina

The wild turkey (*Meleagris gallopavo*) has long been a part of American culture. Benjamin Franklin even proposed that it should be our national bird. Until recently, populations of wild turkeys have declined dramatically. Thanks to the hard work of conservationists, state and federal wildlife agencies, and non-profit organizations, such as the National Wild Turkey Federation, populations of wild turkeys have made an amazing recovery.

The wild turkey is found throughout the United States and in portions of Mexico and Canada. Throughout North America, there are six subspecies of the wild turkey. These birds look similar but occupy different habitats. The subspecies do vary somewhat in coloration and size due to the different habitats that they occupy. The most common and largest of the subspecies is the eastern wild turkey (*Meleagris gallopavo silvestris*). It inhabits mature hardwood and mixed forests from southern Canada and New England south to northern Florida and as far west as the Mississippi River. The subspecies found in southern Florida is known as the Osceola turkey (*M. g. osceola*). Another well-known subspecies is the Merriam turkey (*M. g. merriami*) which is found in the mountains of the western United States. The Rio Grande subspecies (*M. g. intermedia*) is found in the central plains states. There are also two Mexican subspecies.

The eastern wild turkey's habitat consists of open mature hardwood stands within a landscape matrix that includes fields and smaller forest openings. During the fall, their preferred food is acorns. Wild turkeys eat acorns whole and grind them in a specialized stomach called a gizzard. Turkeys roost in trees at night to avoid predators such as coyotes and foxes. They often use open fields for feeding and for mating. Wild turkeys are omnivores and eat acorns, insects, berries and seeds. Adults sometimes eat small reptiles. For young turkeys called "poults", insects are an important source of protein.

Male turkeys are commonly called "toms" or "gobblers". For many hunters, one of the most coveted trophies is a mature

gobbler. These birds are intelligent and have keen eyesight which makes them extremely elusive. An average mature gobbler weighs 20 pounds and stands four feet tall. Immature males are called "jakes" and they are identified by the tail feathers which are short on the sides and longer in the middle, while mature male tail feathers are the same length. Tail feathers are brown with lighter tips. The body feathers are black to dark brown with a metallic hue. Male turkeys have specialized neck feathers called "beards". Male turkeys also have a spur-like projection on their ankles. The longer the beard and spur, the older the male turkey. Female turkeys, called hens, are just as tall, but usually weigh less. They are also similarly colored, but much duller than males. Mating season starts in the early spring and runs from March to May. During this mating season, there is a state-wide hunting season where hunters can take one bearded turkey. The males display to impress females, a behavior known as "strutting". The males fan out their tail feathers, puff up their body feathers and walk around dragging their wing tips on the ground. Their head and neck is bright red, blue and white.

There was a time when wild turkey populations had declined so much that they were almost extinct. Throughout much of the 18<sup>th</sup> and 19<sup>th</sup> centuries, eastern forests were cleared for homesteads and farming. By the early 20<sup>th</sup> century, much of the forest habitat of the wild turkey had been cleared. By 1920, the wild turkey had disappeared from 18 of 39 states. Until the Lacey Act was enacted in 1900, market hunting, along with habitat loss, threatened the wild turkey. In the last century, wild turkey populations have made a major comeback. Many states trapped turkeys from well-stocked populations and relocated them to poorly-stocked areas. The recovery of forests and a landscape now comprised of a mixture of fields for foraging and forests for shelter provides ideal habitat for wild turkey populations.



Photo: National Wild Turkey Federation