



Wood Duck

North Carolina Wildlife Profiles



Wood Duck

Aix sponsa

The wood duck, as its name implies, is most often found in wooded swamps, beaver ponds, freshwater marshes, and along streams and rivers near forests. It is one of seven North American ducks that regularly nest in natural cavities, particularly those found in trees. The wood ducks' body and eyes are well adapted to the wooded habitat it favors. Its slim body allows it to fit into natural tree cavities to nest and its large eyes help the wood duck avoid limbs and branches as it flies through the forest canopy. Wood duck populations exhibited severe declines late in the nineteenth century but due largely to sound wildlife management, have staged a remarkable comeback.

Description

The drake, or male wood duck, is one of the most strikingly beautiful ducks of any species. Its head has a large crown, or crest, and is colored with iridescent greens, blues, and purples. The drake's distinctive facial pattern includes a white throat with fingerlike extensions onto the cheek and neck. The eyes are a deep red and the bill is colored red, white, and yellow with a black tip. The drake's breast is burgundy, and the belly is white. Dark, bronze-green and black feathers cover the back. The hen, like all female ducks, has a drab plumage in comparison, which helps conceal her from predators during nesting and brood rearing. The brownish to gray female wood duck is distinguished by a pronounced white patch surrounding the eye, white throat and grey chest.

History and Status

Beginning in the late 1800's, wood duck populations plummeted due to over-harvest, deforestation, and loss of its wetland habitats. Many ornithologists believed the wood duck might go extinct by the early twentieth century. In 1918, the Migratory Bird Treaty Act protected the wood duck from legal harvest in the United States and Canada. Since that time, the use of artificial nesting boxes, expanding beaver populations which create some of its favored wetland habitat, and restrictive harvests have contributed significantly to its remarkable comeback. Today, wood duck populations are stable throughout its range, despite continued losses of wetland habitat.

Habitat and Habits

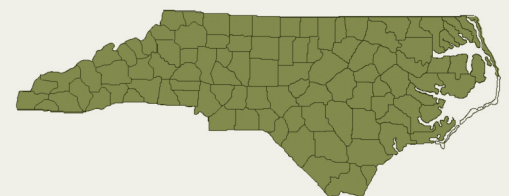
In late summer, wood ducks began forming breeding pairs, which continues into the fall and winter. Wood ducks migrating to northern breeding areas are paired prior to their arrival in early spring. Hen wood ducks will select a suitable nesting cavity and begin laying eggs as early as late January in southern latitudes



Range and Distribution

The wood duck's breeding range includes extreme southern Canada from British Columbia east to Nova Scotia. In the United States, wood ducks breed primarily from east Texas north to the eastern Dakotas, east to Maine, and south to Florida and Cuba. In the west, wood ducks breed along the Pacific coast from Oregon to California, and less commonly in scattered locations east of the Cascade Mountains. It winters in southern latitudes throughout its range, with highest wintering densities occurring in the southeastern United States. In North Carolina, the wood duck is most numerous in the Coastal Plain, both during the breeding season and in the winter.

Range Map



Wood Duck

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such as North Carolina, in March and April in more northern breeding locations. Hens prefer natural cavities in large, mature trees high above the ground in wooded swamps and bottomlands, old beaver ponds, freshwater marshes, and along creeks, streams, and rivers. Hens choose sites near good brood rearing habitat. These areas consist of low, shrubby vegetation such as buttonbush, willow, and alder, or dense stands of emergent plants such as arrow arum, duck potato, smartweeds and bur-reed. They are usually interspersed with small areas of open water. Wood duck hens will also readily nest in man-made nesting boxes placed in optimum brood rearing habitat. Nesting box programs have played a large role in the recovery of wood duck populations throughout its range. The hen will lay 10-15 eggs, usually at the rate of one per day, and after approximately 30 days of incubation, the eggs will hatch. In North Carolina, the peak of hatching occurs in April and early May. The drake will leave the hen during the later stages of incubation and collect in areas with other males to molt, a process by which old feathers are replaced with new ones. A day after the eggs hatch, the hen will call softly from a branch or beneath the nest, and the ducklings will exit the nest cavity. Exiting ducklings are gathered together and then moved quickly by the hen to nearby brood rearing areas. When adequate food and cover is available, ducklings grow quickly, particularly in the first two weeks. After six to eight weeks, broods are normally independent of the hen.

On average, approximately one half of a hen's brood does not survive to flight stage, primarily due to predation. Major predators of ducklings include great horned owls, mink, snapping turtles, bullfrogs, large predatory fish, snakes and alligators. The wood duck is the only North American duck which regularly produces 2 broods in one breeding season, and will quickly nest again after the first brood becomes independent, or after the first nesting attempt fails. Wood ducks consume a wide variety of foods including many types of seeds, fruits, vegetative parts of aquatic plants, and aquatic and terrestrial invertebrates. They also feed on wheat, corn, and rice left in agricultural fields after harvesting or intentionally left standing to provide supplemental food during the winter.

People Interactions

Overharvest was a primary contributing factor in the sharp decline in wood duck populations in the early twentieth century. Since that time, regulated hunting of wood ducks through the Migratory Bird Treaty Act has not adversely affected wood duck populations, and in combination with sound habitat management, wood ducks will continue to thrive. Wood ducks are the most popular species with waterfowl hunters in North Carolina, and are the number one harvested duck in our state. As human populations grow, loss of suitable nesting habitat continues to be the largest threat to wood duck populations. However, to offset this, wildlife managers continue to focus efforts on maintaining older stands of swamp and bottomland timber, which provide suitable nest cavities, stable beaver populations which provide brood rearing areas, and active nest box programs to supplement existing natural cavities.

Wild Facts

Classification

Class: Aves

Order: Anseriformes

Average Size

Length: 17 to 21 inches

Weight: 1.5 pounds

Food

Various seeds, fruits, aquatic plants, invertebrates, and waste grain.

Breeding

Pair formation complete by December.

Nesting begins from late January in south to early May in north, peak in April. Hen will regularly raise two broods.

Young

Clutch size 10 to 15 eggs. Incubation period averages 30 days. Ducklings reach flight state at 60-70 days.

Life Expectancy

Short-lived. About 45 percent of immature wood ducks die during the first year of life, with about 48 percent mortality in each year thereafter.



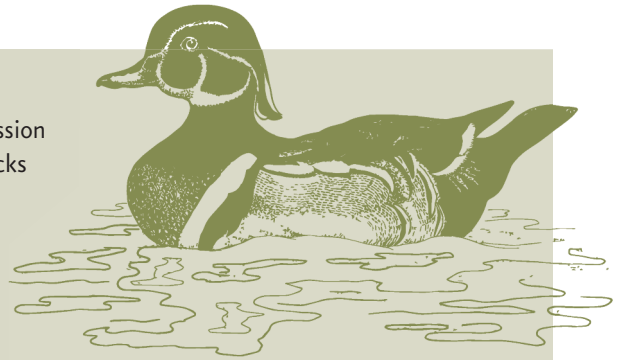
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NCWRC Interaction

Each year during the summer, biologists with the Wildlife Resources Commission trap and place leg bands on wood ducks throughout the state. Wood ducks are enticed into wire traps or captured using large nets powered by explosive rockets after the trap or netting site has been pre-baited with corn. Once captured, biologists determine the wood duck's sex (male or female) and age (adult or immature) by examining the plumage, the wear on certain wing feathers, and the presence, size and shape of the sex organs. An aluminum band with a unique series of identifying numbers is then placed on the ducks leg before it is released at the capture site. The band number, location of banding and the sex and age of the bird is recorded and sent to the federal Bird Banding Laboratory, who maintains information for all birds banded in the United States in a database.

Waterfowl hunters who happen to harvest a wood duck with a leg band get very excited and are eager to learn where the duck was banded. The band has information on how to contact the Bird Banding Lab. When hunters contact the lab with information on when and where the band was recovered, they are sent a certificate of appreciation with information about the bander, where the wood duck was captured and the sex and age of the bird. The band recovery data supplied by hunters is used to examine distribution and migration patterns, and to estimate wood duck harvest and survival rates, which is critical data when establishing annual hunting regulations.



Q&A—Resources for Teachers

1. How did the wood duck get its name?

Wood ducks are most often found in wooded swamps, beaver ponds, freshwater marshes, and along streams and rivers near forests. Also, it is one of seven North American ducks that regularly nest in natural cavities, particularly those found in trees.

2. What factors were responsible for the wood ducks decline in the early 1900's?

Overharvest and loss of wetland habitats were the primary contributing factors in the sharp decline in wood duck populations in the early twentieth century.

3. What factors are responsible for the remarkable rebound of wood duck populations?

In 1918, the Migratory Bird Treaty Act protected the wood duck from legal harvest in the United States and Canada. Since that time, the use of artificial nesting boxes, expanding beaver populations which create some of its favored wetland habitat, and restrictive harvests have contributed significantly to its remarkable comeback.

References

- Hepp, Gary R. and Frank C. Bellrose. Wood Duck (Aix Sponsa). In *The Birds of North America*, No. 169. (The Academy of Natural Sciences, Philadelphia, and the American Ornithologists Union, Washington, D.C., 1995).
- Bellrose, Frank C. and Daniel J. Holm. *Ecology and Management of the Wood Duck*. (Mechanicsburg, Pa.: Stackpole Books, 1994)
- Bellrose, Frank C. *Ducks, Geese and Swans of North America* (Harrisburg, Pa.: StackpoleBooks, 1980).
- Bent, Arthur Cleveland. *Life Histories of North American Wild Fowl* (New York, N.Y.:Dover Publications, Inc. 1987).

Credits

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