

# Bald Eagle

*Haliaeetus leucocephalus*



The bald eagle is truly an all-American bird it ranges over most of the continent, from the northern reaches of Alaska and Canada down to northern Mexico.

While our national symbol was in danger of extinction throughout most of its range 30 years ago, the bald eagle has made a tremendous comeback, its populations greatly improving in numbers, productivity, and security in recent years.

Juvenile bald eagles have mottled brown and white plumage, gradually acquiring their dark brown body and distinctive white head and tail as they mature. Bald eagles generally attain adult plumage by 5 years of age. Most are capable of breeding at 4 or 5 years of age, but in healthy populations they may not start breeding until much older. Adults weigh 8 to 14 pounds (occasionally reaching 16 pounds in Alaska) and have wingspans of 5 ½ to 8 feet. Those in the northern range are larger than those in the south, and females are larger than males.

Bald eagles can live 15-25 years in the wild, and even longer in captivity. They typically mate for life and build huge nests in the tops of large trees near rivers, lakes, marshes, or other aquatic areas. Nests are often re-used year after year, with additions to the nests made annually. Nests are often 4 to 6 feet wide and may weigh up to 1,000 pounds. Although bald eagles may range over great distances, they usually return to nest within 125 miles of where they were raised.

Breeding bald eagles typically lay one to three eggs once a year, which hatch after about 35 days. The young eagles are flying within 3 months and are on their own about a month later. However, disease, lack of food, bad

weather, or human interference can kill many eaglets; recent studies show that approximately 70% survive their first year of life.

The staple food of most bald eagle diets is fish, but they will also feed on waterfowl, rabbits, snakes, turtles, other small animals and carrion. In winter, eagles that nest northern areas migrate south and gather in large numbers near open water areas where fish and other prey are plentiful. Eagles that nest in the south during the winter migrate north in the summer where food is plentiful.

Wildlife experts believe there may have been 100,000 nesting bald eagles in the lower 48 states when the bird was adopted as our national symbol in 1782. Since that time, the bald eagle has suffered from habitat destruction and degradation, illegal shooting, and contamination of its food source, most notably due to the pesticide DDT. By 1963 there were only 417 bald eagle nesting pairs in the lower 48 states.

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*Bald eagles are frequently seen perched on large snags above lakes or rivers. From this vantage point they can survey their surroundings for prey*



Bald eagles have few natural enemies. In general they prefer an environment of quiet isolation; tall, mature trees; and clean waters. Those conditions have changed over much of the bald eagle's former habitat.

Although primarily fish and carrion eaters, bald eagles and other raptors were seen as marauders that killed chickens, lambs, and other domestic livestock. Consequently, large numbers were shot by farmers, ranchers, and others.

In 1940, noting that the national bird was "threatened with extinction," Congress passed the Bald Eagle Protection Act prohibiting, except under certain specified conditions, the taking, possession, and commerce of bald eagles. A 1962 amendment to this Act added the golden eagle, and the amended law became known as the Bald and Golden Eagle Protection Act. In 1967, bald eagles were officially declared an endangered species (under a law that preceded the Endangered Species Act of 1973) in all areas south of the 40th parallel.

The greatest threat to the bald eagle's existence arose from the widespread use of DDT and other pesticides after World War II. DDT was used for insect control throughout the country and its residues washed into lakes and streams. There, it was absorbed by aquatic plants and animals that were eaten by fish. The contaminated fish, in turn, were consumed by bald eagles.

The chemical interfered with the bald eagle's ability to develop strong shells for its eggs. As a result, bald eagles and many other bird species began laying eggs with shells so thin they often broke during incubation or otherwise failed to hatch. Their reproduction disrupted, bald eagle populations

plummeted. As the dangers of DDT became known, in large part due to Rachel Carson's famous book *Silent Spring*, this chemical was banned for most uses in the U.S. in 1972.

In addition to the adverse effects of DDT, bald eagles also died from lead poisoning as a result of feeding on hunter-killed or crippled waterfowl containing lead shot and from lead shot that was inadvertently ingested by the waterfowl. In 1991, a 5-year program to phase out the use of lead shot for waterfowl hunting was completed by the Service.

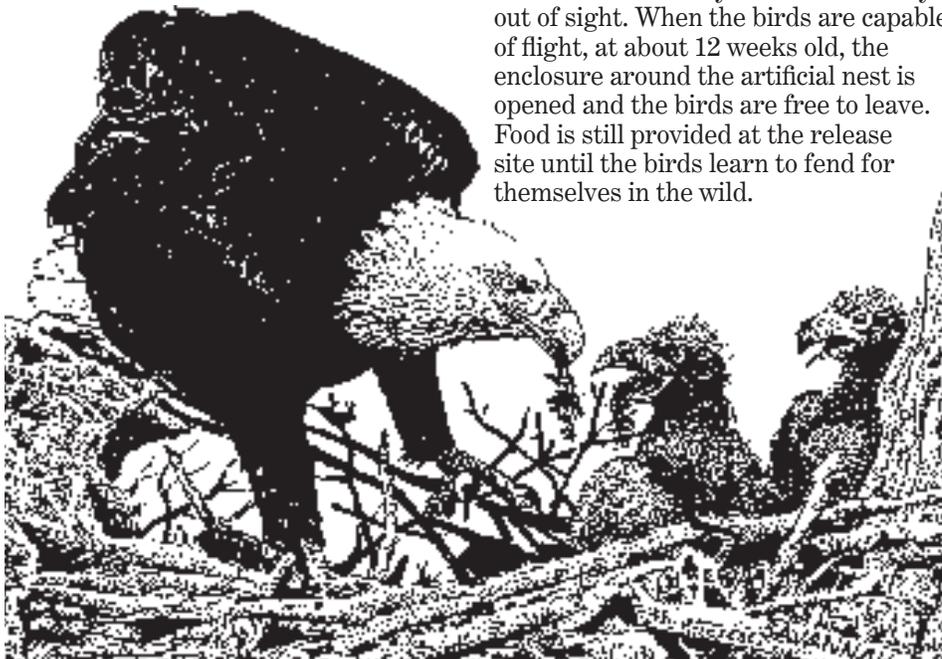
Gradually, the Service assembled the largest colony of breeding bald eagles in captivity at its Patuxent Wildlife Research Center near Laurel, Maryland, in a major effort to return healthy eagles to the wild. The center is now run by the U.S. Geological Survey.

Patuxent's scientists enhanced the species' breeding potential by removing the eagle's first clutch of eggs and incubating them artificially. The eagles would usually then lay a second clutch, which the birds were allowed to incubate themselves. In all, 124 bald eagles were hatched at Patuxent.

These captive-hatched bald eagles were an important source for restocking wild populations in certain areas of the country and helped to reestablish

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*Bald eagles normally lay two to three eggs a year, which hatch after about 35 days. The eagles learn to fly within three months and are on their own about a month later.*



*As a recovery method, biologists place eagles into the nest of adult pairs whose own eggs failed to hatch. The pair then serve as "foster parents."*

a broader distribution. Patuxent's program came to an end in 1988 as bald eagles began to reproduce more successfully in the wild and the center turned its efforts toward other more critically endangered species.

Some states, universities, and non-profit organizations have continued reintroduction efforts. Two methods are generally used. Eaglets used for reintroduction may be captive hatched or, since usually only two young per nest survive, they may be transferred from a bald eagle nest with a clutch of more than two. These "extra" eaglets are placed in the nest of an adult pair whose own eggs are infertile or fail to hatch. The "foster parents" readily adopt the chicks and raise them as their own.

Another method, called "hacking", involves placing eaglets in manmade towers at 8 weeks of age. These towers are located in remote areas where bald eagle populations are low or non-existent. The eaglets are kept in an enclosure and fed by humans who stay out of sight. When the birds are capable of flight, at about 12 weeks old, the enclosure around the artificial nest is opened and the birds are free to leave. Food is still provided at the release site until the birds learn to fend for themselves in the wild.

Thanks to the banning of DDT and these other recovery methods, bald eagle populations have steadily increased in the past 25 years. From 417 nesting pairs in the early 1960s, there are now approximately 7,066 bald eagle nesting pairs and an unknown number of immature bald eagles in the conterminous U.S. In the last few years, several states have had breeding bald eagles for the first time in years.

The bald eagle was originally listed as endangered under the Endangered Species Act in 43 of the lower 48 states and listed as threatened in Michigan, Minnesota, Oregon, Washington, and Wisconsin. (There are about 40,000 bald eagles in Alaska and none in Hawaii.) "Endangered" means a species is considered in danger of extinction throughout all or a significant portion of its range, while "threatened" is a less dire category, meaning a species is considered likely to become endangered within the foreseeable future, but is not currently in danger of extinction.

In July 1995, the Service announced that bald eagles in the lower 48 states had recovered to the point that those populations that were previously considered endangered were now considered threatened. The Service then formally upgraded those populations from endangered to threatened.

In July 1999, the Fish and Wildlife Service proposed to remove the bald eagle from the list of threatened and endangered species. Since then, the Service has reviewed the comments received on that proposal along with new data and information to determine the best ways to manage for the species once it is removed from the protections of the Endangered Species Act. In 2006, the Fish and Wildlife Service re-opened the public comment period due to new information on the proposal to delist. Data gathered during this comment period will be factored into a final decision on the status of the species.

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<http://www.fws.gov>

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