



## Bald Eagle

*Haliaeetus leucocephalus* ("White-headed Sea Eagle")

**SIZE:** Females are about 25 % larger than the male

**WEIGHT:** 7 to 14 pounds

**LENGTH:** 28 to 38 inches

**WINGSPAN:** 70 to 90 inches.

**LIFE SPAN:** In the wild, Bald Eagles have a life expectancy of 15 to 19 years, with the oldest known being 28. In captivity, the average is 25, with the oldest being 47.

### RANGE

Found throughout North America, near large water sources: sea coasts, coastal estuaries, inland lakes and rivers. Limited or absent in arid lands. Rare vagrants to Belize, Bermuda, Puerto Rico, Virgin Islands, Ireland, Sweden, Siberia, Greenland and northeast Asia. Breeding/nesting range size varies due to available resources; from 2 ½ square miles to 18 square miles.

### DIET

Opportunistic foragers, Bald Eagles have a wide variety of foods that include live and dead animals. They generally prefer fish (will take fish up to 15 lbs!) but will eat fresh carrion and many live diurnal animals: birds (mainly waterfowl); turtles; and many species of mammals (rabbit, fawn, squirrel, cat, mice, rat, fox). Also steals food from Osprey.

### COURTSHIP

They begin breeding when they are 5 years old. They perform demonstrative flight displays when they come together for the breeding season; swooping at each other. During their cartwheel display, they clasp their feet and spin as they plummet towards the ground, letting go before impact. They will remain as a pair through the breeding season but will separate in the fall migration, to return to the same breeding site to renew pair bonds in late winter. They will remain as breeding partners for as long as each shall live, but will take on a new mate if the other dies.

### NESTING

Eagles exhibit "nest fidelity", meaning they return to the same nest for numerous years (5 to 13 years), and with adding new material each year they can create huge structures, with older nests weighing as much as 2 tons! Nests are found in a wide variety of large trees; rarely will they make a nest on the ground or in shallow caves. Also used; cellular towers, electrical poles and man-made nest structures. Most nests are placed between 50 and 60 feet up. The base is built upon several branches of the tree, and is made of large and small sticks and rubbish. In the flat top; with a lot of green and dry pine needles, straw, corn stalks, sedges and grasses. The center has a little hollow, 20 inches in diameter and 4 or 5 inches deep, lined with feathers, soft grasses, moss and pine needles, in which the eggs are partially buried. It is a large nest, 7 feet high and 7 1/2 by 5 1/2 feet across the flat top. Nesting dates vary depending upon region. In Pennsylvania this is generally in February. The female generally does most of the nest building, with the male bringing most of the material.

**CLUTCH SIZE:** Two eggs are the normal make up for a full set, sometimes only one, and rarely three. Eggs vary in shape from rounded-ovate to ovate. The shell is rough or coarsely granulated. The color is dull white or pale bluish white and unmarked. The egg weighs about 4 ½ ounces and measure approximately 3 by 2.5 inches.

**INCUBATION PERIOD:** Incubation (keeping the eggs constantly warm) is about 35 days. Both parents assist in incubation. The female does the majority of the incubation. After dark, one will be incubating or brooding, and the other, perched nearby. The body temperature of an adult is around 106 degrees. The eggs are incubated at a temperature of about 99 degrees.

**BROODING:** Both parents bring food to the nest and both assist in feeding and brooding (keeping them warm by laying on them) of the young. The female does the majority of the brooding. Young are fed the same food as the adult eats. They are fed 5 times (+/-) per day. Often only one chick survives the first few weeks; factors of food supply, weather and age of older sibling. Chicks are brooded until they are about 4 weeks old. At that point they are better feathered and better capable of maintaining their own body temperature, along with the weather warming.

**NESTLINGS:** When first hatched the downy young eaglet is completely covered with long, thick, silky down, longest on the head; it is gray on the back, paler gray on the head and under parts, and nearly white on the throat. When the young bird is about 3-4 weeks old this light gray or whitish down is pushed out and replaced by short, woolly, thick down of a dark, sooty-gray color. With the growth of the first plumage, when about 4-5 weeks old, the eaglet spends much time preening its new feathers and gradually disposing of its old gray down. About five or six weeks old the plumage begins to appear on the body and wings, scattered brownish-black feathers showing on the scapulars (body feathers that cover the top of the wing when the bird is at rest), back, and sides of the breast; at this age the wing quills are breaking their sheaths. At the age of 7 or 8 weeks the eaglet is fairly well feathered, with only a little down showing between the feather tracks, and the flight feathers are fully half grown.

**FLEDGING AGE:** They will fledge (leave the nest) between 8 and 14 weeks of age. Body is uniformly dark colored "bone brown" to "clove brown" above and below; the flight feathers are nearly black, and often with a slight sprinkling of grayish white in the tail. This plumage is worn throughout the first year without much change, except by wear and fading, the under parts fading to drab brown. For some time after they leave the nest, generally their first summer, the young eagles associate with their parents in the home territory and frequently return to the nest or their favorite perches. They are eventually driven out late summer and seek new territory. They are never allowed to establish a breeding station near their parental home.

## **DESCRIPTION**

Plumage changes distinctly through the first four years. After hatching, chicks have dark eyes, pink legs and skin and pale talons, their skin darkens to a bluish hue and their legs become yellow around 20 days of age. Through the first year, their bodies, eyes and beaks are dark brown, though their underwing coverts and axillaries are white. Second year; their eyes lighten to a gray-brown, they develop a light colored brow ridge and their body becomes a mottled white. Third year; their beak and eyes start to turn yellow and their head feathers lighten, body remains mottled. Fourth year; their body becomes mostly dark and their head and tail become mostly white, with some beige around their eyes, crown and isolated spots on their tail. Fifth year the birds reach mature coloration and sexual maturity showing the iconic white head and tail, with a dark brown body. Adults and immature birds have one complete annual molt, which is very gradual, and prolonged through spring, summer, and fall. The flight feathers are molted mainly during July, August, and September. An adult bald eagle is unmistakable, with its pure-white head and tail and its dark brown body; the head is conspicuous at a great distance, as a large soaring bird in the air or when the bird is perched on a tree, especially against a dark background. The juvenile first-year bird is uniformly dark colored and may be mistaken for a Turkey Vulture.

## MIGRATION/DISPERSAL

Most populations, especially those in northern regions, migrate to southern, milder climates annually in the fall or as far as needed for increased feeding opportunities; traveling anywhere from 15 to 77 days. Some southern populations do not migrate. Spring migration may have birds traveling back to summer ranges from 6 to 151 days.

## VOICE AND COMMUNICATION

The cry of the male is a loud clear 'cac-cac-cac,' quite different from that of the female, the call of the latter is more harsh and often broken. Oftenest near its nest, is a high-pitched very metallic 'kweek kuk kuk, kweek-a-kuk-kuk'. They also communicate through visual displays of head and wing motions and crouching.



*Scan here to hear a Bald Eagle call*

## MORTALITY

Deaths are often caused by human related factors: electrocution, vehicle collisions, animal leg traps, poisoning, shooting. Natural causes for adults include starvation, disease, trauma, violent weather. Eggs and young are preyed upon by crow, bear, raccoon, bobcat, and gulls, among a few others.

## CONSERVATION STATUS

World population had dropped to around 1,000 birds by the 1960's, but due to conservation efforts in the 1970's and continued efforts to protect this species through State, Federal and International regulations, the Bald Eagle was removed from the Endangered species list in 1995 to Threatened, and removed from the Threatened list in 2007 as the population is stable and rising. There are currently more than 250 identified Bald Eagle nests located in Pennsylvania and an estimated 70,000 Bald Eagles in North America.

## VALUE FOR HUMANS

On June 20, 1782, our forefathers adopted as our national emblem the Bald Eagle, or the "American eagle", as it was called. Bald Eagles attract bird watchers and other nature enthusiasts, equating an estimated 20 to 60 billion dollars annually in our economy. Bald Eagles are an integral component of our ecosystem, they, and other repopulating adaptive species, are a great sign that, even with regional development, we are still able to provide quality habitats for wildlife and humans to enjoy.

## HISTORY IN NORTH PARK

The Bald Eagle had been a very rare visitor to North Park until very recently. Sightings increased around 2013 as eastern populations increased and migration routes took them over the region. Juvenile Bald Eagles were noticed stopping in the park in 2017, possible offspring from long established nest sites at Moraine or Moniteau, or even the newer Pittsburgh pairs. Then in 2018, an apparent pair, stayed and claimed the park, building a nest at the now "Eagle's Nest" pavilion. In 2019 and 2020, it is believed this pair laid one or more eggs, but there was no hatch. In 2020, the female went missing with the male soon to follow. In 2021, a new pair was seen in the park. As they were working on the previous eagle nest, the tree fell, causing the eagles to flee. The pair has been seen in the park since.

For daily updates and fabulous photographs on North Park's Bald Eagle, visit the **North Park Bald Eagles** Facebook page.

References for this paper (compiled by Meg Scanlon, 2022) taken from numerous internet sources, including:

[https://animaldiversity.org/accounts/Haliaeetus\\_leucocephalus/](https://animaldiversity.org/accounts/Haliaeetus_leucocephalus/)  
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