

BALD EAGLES

Introduction

Meet a symbol of freedom and vision. Eagles have long been an important cultural personality for many first nation groups in the Pacific Northwest. For the Coast Salish culture the eagle represents freedom, respecting first the individual and then all life, and vision, knowing that the decisions made will effect at least the next seven generations of people. The eagle continues to amaze us today. We are impressed by its size, strength and commanding presence.

Characteristics

The bald eagle gets its name not because it appears bald, but because the word 'bald' at one time meant 'white'. An adult bald eagle has a white head, neck and tail, a dark brown body and a yellow beak and yellow feet. It weighs between 10 and 14 pounds and has a wingspan of six to eight feet, making it one of North America's largest birds. The female is bigger than the male, and can be identified by her deeper beak.

Eagles have around 7,000 feathers, which play a crucial role in maintaining their body temperature. The feathers trap layers of air keeping the bird warm in winter and cool in summer, and providing a waterproof shield. Eagles can also change the position of their feathers to control their body temperature.

Habitat

Eagles are found on all continents except Antarctica. The bald eagle belongs to one of four major eagle groups, *'fish eagles'*, due to its diet. The other three groups are *'snake or serpent eagles'*, *'booted or true eagles'* and *'harpy or buteonine eagles/giant forest eagles'*. Fish eagles can be found from the Arctic Circle to the tropics (except for South America), living in forested areas by lakes, rivers and oceans. Other examples of fish eagles are the African Fish eagle, which can be found on the African continent south of the Sahara and the White-bellied Sea Eagle which can be found near the shorelines of Singapore. Bald eagles themselves live all over the North American continent, some as far south as northern Mexico, although the majority are found in Alaska, and along the coast of British Columbia.

An eagle's nest is called an eyrie. Bald eagles will construct large eyries in the forks of branches at the tops of tall trees. The nest shape will be determined by where it is built for example, in a sharp fork the nest will be cone-shaped, and in a shallow fork it will be more disc-shaped. Typically, the nest will be about five feet in diameter and two feet deep, but can reach up to 10 feet across, weighing several tons as more material is added each year. The nest is built from sticks and lined with moss, grass, feathers and twigs. If bad weather destroys a nest, the new one is usually built nearby.

Bald eagles are fearsome hunters and feed mostly on fish but sometimes will eat small animals such as rabbits, ducks and turtles. They hunt in both fresh and salt water, and will eat live or dead animals (carrion) and do not need to eat everyday. The eagle's diet helps in the process of natural selection, as they will often kill weaker and older animals. This, in turn, ensures that the given population remains strong and healthy.

One factor contributing to eagles' formidable hunting skills is their phenomenal eyesight. Bald eagles see in colour and with four times the clarity of a human with perfect vision. They also are able to see to the front and side at the same time. Eagles can spot fish from several hundred feet up in the air. They then swoop down and use their talons to grab their prey near the water's surface. The talons lock and cannot be released until they land on a solid surface. At this point, they will hold the prey in one talon and tear bits off with its hook shaped beak. If an eagle ends up in the water by mistake when swooping on prey, it can swim to land using its wings.

Behaviour

The eagle's large wings are designed for soaring, and their size and broadness helps them to ride thermals, which are currents of warm air caused to rise by geographical features such as mountains. Their tails are also important, helping to maximize the effect of the thermals and are also useful for manoeuvring, braking and keeping control in a dive.

Most eagles migrate, making the journey south in the fall to follow food sources, and then back further north again in spring. The eagles travel by riding a high thermal, then soaring down to the next one and so on, which helps conserve energy. Some eagles do stay in the same location year-round, such as those found in Florida.

Lifecycle

Bald eagles reach sexual maturity between four and five years old. Faithful birds; once paired up with a mate, they will remain with the same partner for life. When a partner dies, eagles will look for a new mate.

Females lay one to three goose-size, off-white eggs from late March to May in Canada and Alaska and from November to January in the southern US. The incubation period is 35 days and both the male and female protect the eggs and keep them warm. Both eagles will also hunt for food and feed pieces of meat to their young using their beaks.

The eaglets reach full size within 12 weeks and begin taking short practice flights. It takes several years for young eaglets to develop the same plumage as their parents. Their feathers are light grey at first, turning to dark brown during the first few weeks. At three to four years old, the plumage is a mottled brown and white on the head, tail, breast and under the wings. The characteristic white head and tail and yellow beak, eyes and feet do not appear until the bird is four or five years old.

Threats

Although eagles are powerful predators, they still face serious threats. Their top position in the food chain leaves them at risk of ingesting toxic substances that can sometimes be absorbed by animals on which they feed. With each link further up the food chain, the toxic substances become more concentrated.

Other sources of danger to the bald eagle are gun shots wounds from hunters, deliberate or accidental, lead poisoning from eating animals that have been shot, electrocution from landing on power lines, starvation and being hit by vehicles. An eagle can also die of hypothermia if it accidentally lands in water.

Urbanization during the 20th century has resulted in the destruction of the bald eagle's habitat, the use of poisonous pesticides on crops such as DDT (now banned in North America) and the shooting of the birds in large numbers has led to a great decline in their population (*estimated at between 300,000 and 500,000 birds in the early 18th century to under 500 breeding pairs by the 1960s*). Thanks to the introduction of environmental protection laws, such as the Bald Eagle Act, and conservation programs, the bird has made a comeback. Once listed as an endangered species by the US Fish and Wildlife Service, its status has been downgraded to 'threatened' today. Over 20,000 bald eagles now live in the lower 48 states of the US, and over 35,000 birds in Alaska. In Canada, it is estimated that the Bald Eagle population is at 15,000, which increases to approximately 30,000 during the winter months.

FASCINATING FACTS

Did you know that?

- Eagles bones weigh very little because they are hollow
- A group of eagles is called a 'kettle'

- The eagle's talons and beak are made of keratin, like human hair, and grow continuously
- It is estimated that only one out of 18 eagle attacks result in a successful kill
- A nest was found that weighed over two tons and was 34 years old

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