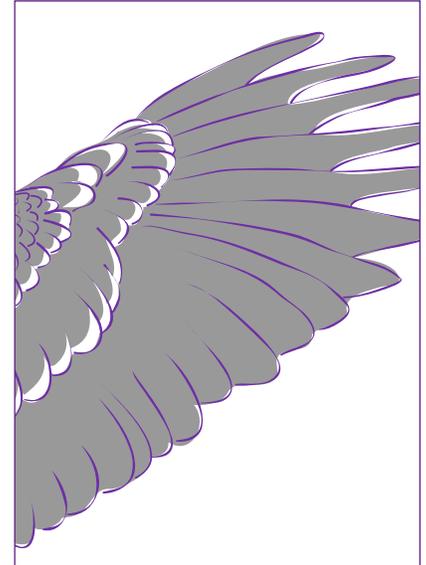
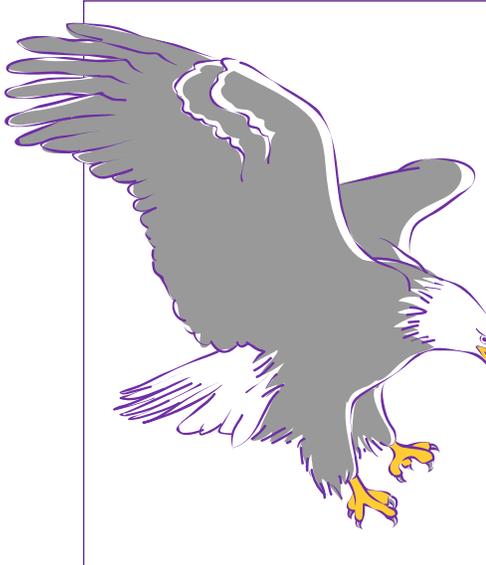


# Life of a Bald Eagle



## BIRD OF PREY

Bald eagles are members of the hawk family. Like other raptors, they are birds of prey that eat other animals. Eagles love fish, especially salmon, but will take other prey if necessary, even dead animals.

Eagles are not as fast as falcons, but can fly 30 miles an hour and may reach 100 miles an hour in a dive. They prefer to fly low and snatch fish near the surface, but will go into the water if necessary, where they use their wings to swim. Eagles only succeed in about one out of 20 attacks. Hunting uses a lot of energy. That is why eagles have to rest often.

Eagles are also known to steal food from other raptors, especially osprey. They may watch an osprey until it catches a fish, and then chase it or attack so the osprey drops the fish and the eagle can pick it up with its sharp talons.

When an eagle's open talons hit prey, they snap closed and cannot be opened until the eagle pushes down on a solid surface. An eagle can lift about 4 pounds.

## POWERFUL EYES

Eagles have excellent eyesight that helps them see fish in the water from several hundred feet in the air. It's even easier for them to spot dead fish, because they float with their light side up.

An eagle's eye is almost as big as a human's, but it's much more powerful. An eagle can see four times farther than a human with perfect vision. What's more, eagles can see both forward and to the side at the same time. An eagle flying one thousand feet in the air can spot prey over an area of nearly 3 square miles.

## ALL WEATHER COAT

Eagles have about 7,000 feathers in several layers on their bodies. The feathers overlap to trap layers of air, which keeps eagles warm enough so they can live in very cold climates. Eagles open or close their feathers at will to protect themselves from rain, sun and cold.

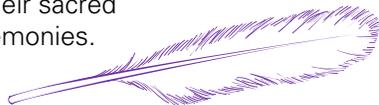
Feathers also help eagles control their flight. The feathers on their wing tips are widely separated to help keep them steady, and the tail feathers act as brakes. They are spread wide when eagles soar to help them coast atop thermals, rising currents of warm air created by valley edges or mountain slopes. A group of eagles flying together is called a kettle of eagles.

# Life of a Bald Eagle



## SYMBOL OF POWER AND FREEDOM

Native Americans believe that a lone eagle feather has great power, and use eagle feathers in their sacred ceremonies.



The leaders of the American Revolution also admired the strength and beauty of the bald eagle. People believed the high-flying eagles represented freedom, and in 1787 the bald eagle was adopted as our national emblem.

Some people didn't agree with that choice. Benjamin Franklin called the bald eagle "a bird of bad moral character" because of its habit of stealing fish caught by ospreys. Franklin argued – with no success – that the turkey was a more respectable "bird of courage" and a better symbol of the young nation.

Today you can see eagles on the backs of some quarters, half dollars and silver dollars.



## PHYSICAL DESCRIPTION

Adult eagles weigh between 9 and 12 pounds. Females are slightly larger than males. Females are around 36 inches long, and males are about 32 inches. Bald eagles have a wingspan of up to 7 feet. Adults have a dark brown or black back and breast, with the familiar white head, neck and tail. The feet and bill are yellow.

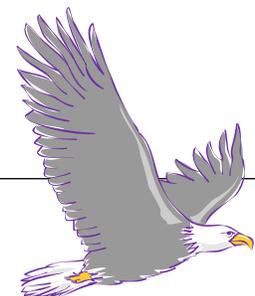
Young bald eagles have black bills and mottled brown and white feathers. Their adult coloring comes in when they are 4 or 5 years old and ready to reproduce.

## LARGE NESTS

Eagles need privacy and quiet to breed. When people come too close, the eagles often abandon the nest.

Eagles nest in large trees or cliffs near rivers or lakes. An average eagle's nest, also called an eyrie, is about five feet across. But since eagles mate for life and often use the same nest for years, they can grow as large as nine feet across. During nesting season eagles will keep other eagles out of a one or two square mile area around their nest.

Eagles lay between one and three speckled, off-white eggs. Incubation, or sitting on the eggs until they hatch, is mostly done by the female with the male giving her occasional breaks. Someone has to stay in the nest at all times to protect the eggs from predators. Squirrels, ravens and gulls will break open and eat eagle eggs.



## FAMILY LIFE ON EAGLE CAM

For a close-up look at the family life of these beautiful birds, check out Xcel Energy's Eagle Cam during the nesting season. A pair of bald eagles lives at our Fort St. Vrain Station in Platteville, Colorado

Their six-foot-wide by five-foot-deep nest sits high in a cottonwood tree near the plant. You can visit Eagle Cam at the Xcel Energy Web site, [www.xcelenergy.com](http://www.xcelenergy.com).

# Life of a Bald Eagle



## FAMILY TIME

Eagles' eggs hatch in the order in which they were laid, usually after 35 days. Eaglets break through the egg with their egg tooth, a pointed bump in the top of the beak. They are covered with soft gray down. Their eyes are half closed and their legs are too wobbly to hold them up. In the beginning their father does all the hunting, bringing food back to the eyrie for their mother to shred into small pieces to feed the eaglets.

While on the nest with their newborns, both parents walk with their talons closed into fists to avoid hurting their young. Siblings are not so polite. It's not unusual for an older chick to kill the smaller, younger chick. Neither parent interferes.

The young eagles grow very quickly. They add a pound of weight every 4 or 5 days, and by 3 weeks they are about a foot high. They begin to grow a second layer of down. Between 4 and 5 weeks, they can stand and begin to tear their own food.



By 6 weeks, they are almost as big as their parents and have begun to grow a top layer of black feathers.

At 8 weeks, the parents need to hunt almost full time to keep their young fed. The young birds begin to stretch their wings. At 10 to 13 weeks, a fledgling will take its first flight. It's a dangerous step. Two out of 5 young eagles do not survive their first flight.

They have the summer to learn how to hunt through trial and error. Their first winter is coming, one of the most dangerous times in their lives as they learn to survive outside the eyrie. If they make it, the average eagle's lifespan is 15 to 20 years, although some do live as long as 30 years.

Some eagles migrate, not because they are cold, but because when water freezes over they lose their food source. They'll go as far south as they need to for open water and a good supply of fish.

## HOW MANY BALD EAGLES ARE THERE?

These majestic birds once covered North America. Before Europeans arrived, there were an estimated half a million bald eagles, nesting and hunting along nearly every large river and region with many lakes in 45 states.

As more and more people settled the continent, they competed with eagles for food, and the eagle population declined sharply by the late 1880s.

Hunting of eagles was outlawed in 1940 because Congress wanted to protect our national symbol.

But the use of DDT as a pesticide on crops hurt the eagle population even more. The pesticide killed the bugs that hurt crops, but not the small animals and other birds that ate the plants. Because the eagles are at the top of the food chain, the toxins built up in them until their eggs were too thin to survive incubation, or the eagles became infertile.

Finally in 1972 DDT was banned. But in 1978 the bald eagle was listed as an Endangered Species. Slowly, the population began to recover until the eagle's status was upgraded to Threatened in 1995. The population continued to improve – and in 2007, the bald eagle was taken off the endangered species list.

Today more than half of all the bald eagles live in Alaska, which has about 30,000 birds.