

# NATURE DETECTIVES

Winter 2008



## Bald Eagle Challenge

Quick, find a bald eagle. You can probably find one in your house in less than five minutes. Need a hint where to look? Try looking on quarters or dollar bills.

Bald eagles are *everywhere* around us – on paper money and coins, on advertisements, on decorations and more.

Pull Out and Save

To most Americans, the bald eagle stands for freedom and strength. For over two hundred years, the bald eagle has been the great symbol of our country; yet not long ago, *live* bald eagles were in danger of being *nowhere*. The eagles were in danger of becoming extinct. Today their existence is still threatened. With protective laws, bald eagles are making a comeback, but seeing a bald eagle in its natural habitat is a challenge in most places.

### Trouble for Bald Eagles

In 1782, when the bald eagle was put on the Great Seal of the United States (which goes on everything the President signs) there were lots of bald eagles in our country – maybe around 100,000. Over the decades, places where eagles lived became filled with buildings, power lines, cars, airplanes, loggers, and illegal hunters and trappers. No wonder eagles began to disappear.

### Unintended Results

The biggest loss of eagles occurred when a pesticide made to kill insects also ended up in fish and birds. Raptors such as bald eagles ate these animals and soon had high concentrations of the chemical in their bodies, too. (Raptors are birds that hunt other animals for food.) The pesticide caused eggshells so thin that when the parent birds sat on the eggs to keep them warm, the eggs cracked open from the weight of the parent birds. Soon people were noticing there were fewer and fewer baby raptors. By 1963, there were fewer than 1000 bald eagles left. The worst of the pesticides were banned in our country and eagles now number around 20,000. But, compared to the 1780's, eagles are still hard to find, especially if you live anywhere in the U.S. except Alaska. Seeing a bald eagle in Boulder County is very exciting when you know how close we came to losing bald eagles forever.



## Bald Eagles in Winter

Most bald eagles live near water where they can catch fish throughout the year, but some live where cold temperatures freeze the water in the winter. Those eagles tend to move south to find warmer fishing waters or to find other animals to eat. Some bald eagles migrate to Boulder County in the winter. Here they may hunt prairie dogs, rabbits, or water birds such as ducks. They often steal food from other predators such as red-tailed hawks. When fresh food is in short supply, bald eagles will eat dead animals, garbage and even vulture puke. They can't really smell their food, so dead or alive, it's all equally tasty to eagles.

## Soar Like an Eagle

Only a small part of the eagle's day is spent doing much. Mostly, they spend their time in very tall trees just looking around. Because they have amazingly good eyesight, looking around is how they find food. Like having built-in binoculars, they can hone in on a rabbit two miles away. When they spot something to eat, they can dive toward it at speeds up to 100 miles per hour. If they want to fly to a new hunting spot, their huge wings can carry them along at 44 miles per hour.

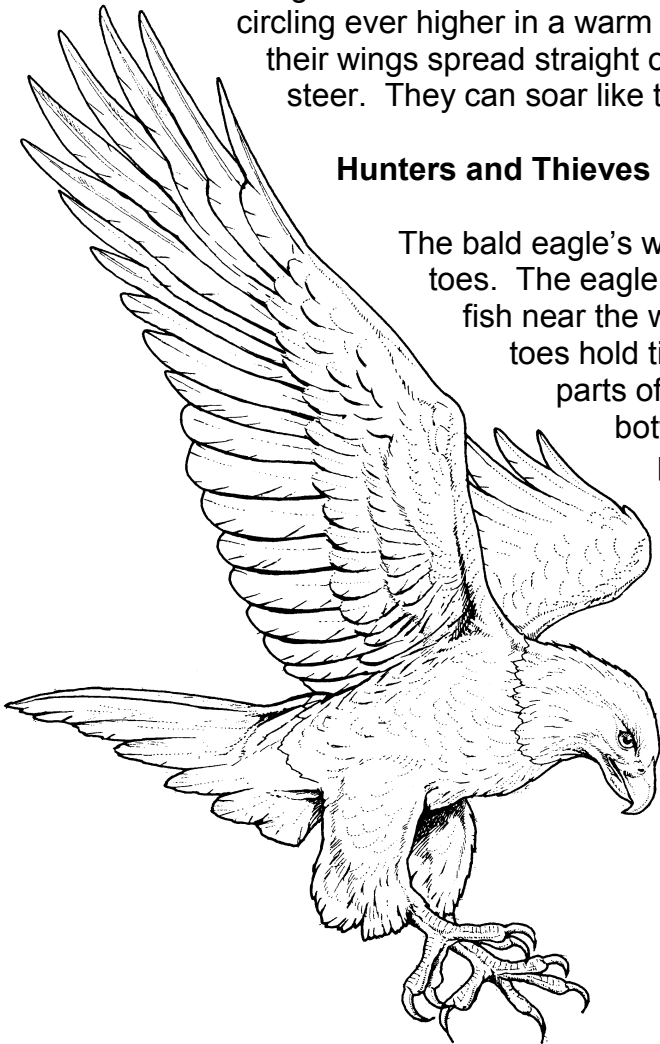
They are experts at using warm air currents to fly without having to spend much time flapping their wings. Watch for them floating upward on the warm air coming off a cliff or circling ever higher in a warm thermal air current. Notice that they glide with their wings spread straight out and steady. They use their tail feathers to steer. They can soar like this for hours.

## Hunters and Thieves

The bald eagle's weapons are the sharp talons or claws on its toes. The eagle swoops down, talons first, to grab a slippery fish near the water's surface. The talons on the eagle's front toes hold tight while the talon on the back toe pierces vital parts of its catch, making the kill. Tiny spikes on the bottom of its toes help the eagle keep a grip on its prey. With the kill secured between its toes, the eagle tears off bites with its strong curved beak.

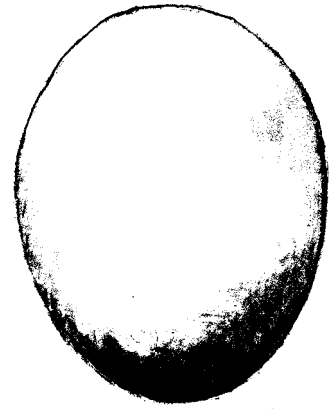
With their talons, eagles can also snatch a bird off the water or sometimes out of the air. They can catch rabbits and other small mammals on the ground. Muskrats, squirrels, even turtles are also prey. Despite being skilled hunters, bald eagles often wait for an opportunity to harass another hunter into giving up its prey rather than making their own kill.

Watch for one chasing a hawk that is carrying a prairie dog.



## Thousand Pound Nests

Last year, wildlife experts observed five pairs of bald eagles raising babies in Boulder County. All the nests are high up in cottonwood trees near a creek or reservoir. By February, with luck, the eagle pairs will be back at their same nests, enlarging and repairing the nests with new sticks and lining them with grass and feathers. Bald eagle nests are huge and get bigger every year. It is estimated that a first-year nest could hold 300 robin nests.



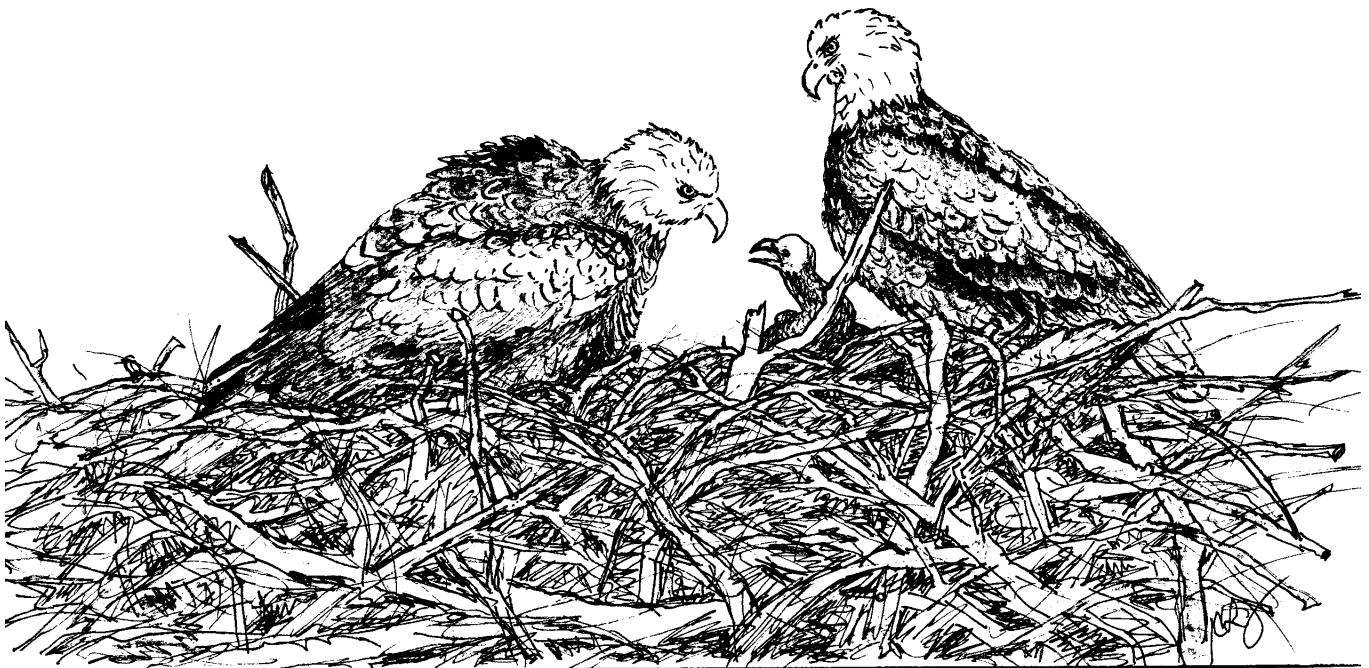
## Bald Eagle Babies

The female eagle lays 1, 2, or even 3 eggs starting the end of February or the beginning of March. Parent birds take turns sitting on the eggs, keeping them warm and protected from squirrels, ravens and gulls. In April the eggs hatch, and the parents start working hard to keep the quickly growing babies fed.

BALD EAGLE EGG approx.  
3/4 life size

No other bird in North America grows as fast as a baby eagle. By the time they are eight weeks old, they can stand at the edge of the nest and practice wing flapping. Around ten to thirteen weeks after hatching they take off on their first flight. The first flight is clumsy and dangerous, usually ending in a crash landing. Flying is difficult to learn, but hunting is harder and most eagles do not catch enough food to survive their first winter. Those that succeed at hunting live an average of 25 years.

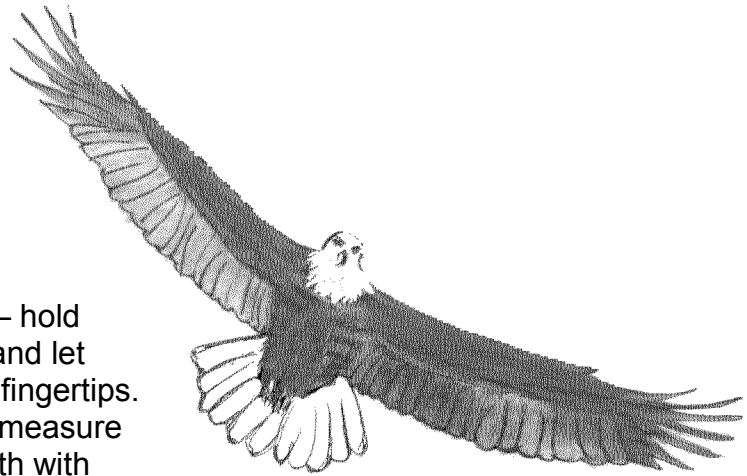
Bald eagle babies have black feathers, brown eyes and brown beaks. As they grow, black feathers are replaced by dark brown feathers with some white. Their eyes and beaks get gradually lighter. Finally, by the time they are four to five years old, the bald eagles will have the shining white heads and tails and the vividly yellow eyes, beaks and feet that make the adult birds so majestic.



## What A Wingspan!

A bird's wingspan is the length from the tip of one wing to the tip of the other when the wings are stretched out, like while a bird is soaring. A bald eagle's wingspan can measure 6 or 7 feet.

Have someone measure *your* wingspan – hold your arms out as if you are a bird flying, and let someone measure you from fingertips to fingertips. How many feet is your wingspan? Then measure out 6 or 7 feet on the floor, mark the length with something, and compare your wingspan to that of a bald eagle. Whose is larger?



## Watch Live Bald Eagles at the Nest (Online)

Bald eagles are easily disturbed by human activity so it is best to view nests on your computer. Going near a nest in the wild can cause the parent birds to abandon the nest completely.

You can use the Internet to watch eagles through the lens of the Xcel eagle cam. The camera is positioned above an active Colorado bald eagle nest. Right now, you can go to the site and view actual photos from last season. (<http://birdcam.xcelenergy.com/eagle.html>).

