

## Eagles

The **bald eagle** (*Haliaeetus leucocephalus*) of Alaska's waterways and the soaring **golden eagle** (*Aquila chrysaetos*) of the Interior are two of this state's most magnificent birds of prey. Long valued for their aesthetic beauty, eagles are now recognized for their biological importance as scavengers and predators in the natural environment. These raptors deserve our protection and respect.

### Bald Eagles

**General description:** The bald eagle is so named for its conspicuous white head and tail. The distinctive white adult plumage is not attained until 5 or more years of age. Immature birds lack this easily identifiable characteristic and can be confused with the golden eagle. The immature bald eagle's unfeathered tarsi (lower legs) and whitish wing linings on the forward part of the wings can be helpful distinctions where the two species coexist. The bald eagle is Alaska's largest resident bird of prey with a wing span up to 7 1/2 feet (2.3 m) long and weights of 8 to 14 pounds (3.6-6.4 kg). Like many raptors, females are larger than males.

**Life history:** Found only in North America, bald eagles are more abundant in Alaska than anywhere else in the United States. The Alaska population has been estimated to include 30,000 birds at the time of fledging. Bald eagles are often found along Alaska's coast, offshore islands, and Interior lakes and rivers. The highest nesting densities occur on the islands of Southeast Alaska. Most bald eagles winter in southern Alaska, but some leave the state during cold months. In the Chilkat Valley, over 3,000 birds may congregate in late fall and early winter to feed on spawned-out salmon.

**Reproduction and nesting:** Bald eagles often use and rebuild the same nest each year. Nest trees are usually close to water, afford a clear view of the surrounding area, and often provide sparse cover above the nest. In Southeast Alaska, bald eagles usually nest in old-growth timber along saltwater shorelines and mainland rivers. Eagles in Southcentral Alaska nest in old cottonwood trees near water. Nest building begins in April, and both the male and female gather nest material. In late April, two (sometimes three) dull white or creamy yellow eggs are laid several days apart. Incubation lasts about 35 days. When the young hatch, sibling rivalry is common and the weaker, usually the younger, chick is killed or starved. The surviving young leave the nest after approximately 75 days. They do not attain adult plumage and breed until 4 or 5 years of age. After the breeding season, bald eagles congregate where food is plentiful, and they may continue to roost near the nest tree.

Reproductive success can be affected by pesticides in the eagles' prey. Alaska bald eagles seem to be reproductively healthy, but contaminants have been recorded in Alaska fish populations and in bald eagles. A greater threat to Alaska's bald eagle population is destruction of their nesting habitat and nest disturbances. Nest trees tend to be the largest in the stand and are usually 400 years old. In treeless areas on the Aleutians, nests are located on rock pinnacles, or they may be on the ground.

**Food habits:** Fish are the main diet of the bald eagle. Herring, flounder, pollock, and salmon are taken along the coast, while the Interior populations prey heavily upon salmon. Eagles also prey upon waterfowl, small mammals, sea urchins, clams, crabs, and carrion. Bald eagles are sometimes seen swimming, laboriously "rowing" with their wings. Eagles have thick down and float pretty well. There is a misconception that eagles cannot let go of prey. The talons grasp, but it's purely voluntary. An eagle will sometimes grab a fish that's too heavy to lift and will choose to swim, towing the meal to shore, rather than lose it.

**Management protection:** Claims by fox farmers and fishers of eagle depredations caused the Alaska Territorial Legislature in 1917 to impose a bounty system on eagles. These claims were later found to be mainly false, but over 100,000 eagles were killed before the bounty was removed in 1953. With statehood in 1959, the bald eagle in Alaska received federal protection under the Bald Eagle Protection Act of 1940. This act made it illegal to kill or possess an eagle, alive or dead, or to possess any part of an eagle, including feathers. Bald eagles were endangered or eliminated throughout most of the Lower 48 states as a result of habitat destruction, illegal shooting, pesticides, and poisoning. Bald eagle populations are recovering in many states because of strong support for endangered species wildlife habitat, and in 2007, the bald eagle was removed from the list of threatened and endangered species. Alaska's populations remain healthy, but careful stewardship and conservation of nesting habitat and salmon spawning streams as well as minimizing human disturbance near nest sites is necessary in order to protect Alaska's bald eagles from the potential harm caused by increasing human development.

In 1972, the Alaska State Legislature established a stretch of the Chilkat River as critical bald eagle habitat to ensure protection of the large numbers found there in winter. In 1982, a portion of the surrounding area was established as the Alaska Chilkat Bald Eagle Preserve.

### Golden Eagle

**General description:** The golden eagle is named for the golden buff-colored feathers on the crown and nape of the neck. The adult body color is usually dark brown, and the dark-tipped tail is either darkly barred or spotted. Adult plumage is acquired over a three to four year period and involves a gradual reduction in the amount of white coloration. Immature golden eagles have white wing patches and white at the base of the tail. This bird has a wing span from 6 to 7 feet (1.8-2.1 m) and weighs 8 to 12 pounds (3.6-5.4 kg).

Golden eagles are found in northern regions of the entire northern hemisphere. In Alaska, the range extends as far north as the Brooks Range with a limited and scattered distribution in Southeast and rare occurrences in the Aleutians or Alaska Peninsula. Not all eagles migrate but most go south when food supplies decline.

**Reproduction and nesting:** Time of courtship varies with elevation and latitude. Golden eagles arrive at Denali National Park in March and as late as May in the Brooks Range. Egg laying takes place from late April through May. Usually a clutch of two eggs is laid with 35 to 45 days needed for incubation. It takes 90 to 100 days for the hatchlings to become independent of their parents. Nests (eyries) as large as 10 feet across (3 m) and 4 feet (1.2 m) thick are usually located on cliffs, but trees may be used. Overall fledging success is approximately one eaglet per pair. Since mortality in



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juveniles can be as high as 75 percent, it could take one mating pair up to 10 years to produce two breeding birds.

**Food habits:** The golden eagle feeds mainly on ground squirrels, hares, and birds such as cranes, owls, and ptarmigans. While golden eagles are capable of killing large game animals (i.e., Dall sheep lambs, etc.), few killings have been observed. Eagles also feed on carrion. Like bald eagles, golden eagles can lift about three or four pounds, a bit more if they swoop down with some airspeed and grab something.

**Management and protection:** Federal and state laws protecting the bald eagle also apply to the golden eagle, making possession illegal. However, it is possible to get a permit from the U.S. Fish and Wildlife Service to possess eagle feathers and parts for specific purposes (including scientific and cultural). Chemical contaminants are not presently affecting the golden eagle. Loss of undisturbed habitat seems the most serious threat to maintaining healthy populations of golden eagles. Increasing human disturbance of eagles and remote area development pose similar problems for golden eagles as they do for Alaska's bald eagles.

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