

## Great Gray Owl

The **Great Gray Owl** (*Strix nebulosa*) is one of the most reclusive owls in North America. Although widely distributed in Alaska, it is common only in certain localities. Couple this with its secretive habits and you have a bird rarely seen and little known to most Alaskans.

It ranges from the Brooks Range, south to Cook Inlet, east into Canada, and occasionally into the southeastern panhandle. The species has a circumpolar distribution from Norway across the boreal forest to eastern Canada. It is active both during the day and at night. In the middle Yukon and Koyukuk River areas, the owl prefers the edge between grassland meadow and tall willow, balsam poplar, or white spruce.

**General description:** The Great Gray Owl is the tallest owl in Alaska, but it is not the heaviest. The owl stands 19 inches (48.26 cm) high with a wing span of 4½ feet (1.37 m) and weighs from 2.3 to 3.5 pounds (1.0 to 1.6 kg). The gray color, yellow eyes, large size, and the absence of ear tufts (horns) are diagnostic features. The bird has a prominent white collar on the front of the neck. The feathers on the chest and sides are 4-6 inches long and, when fluffed out, help keep the owl warm during the long cold winters. The bird has a naked patch under each wing which aids in cooling it during the hot summer. The patch is usually hidden by the wings and adjacent feathers.

The owl has a distinctive facial disk, and the feathers of the disk help direct sounds toward the ear openings which are hidden by feathers. The owl also has an asymmetrical skull with large bony cups surrounding the ear openings. These features help it to detect the quiet, nearly silent sounds of mice and other small rodents and to assist the owl in determining the exact location of prey in the dark.

The owl often perches near the edge of a meadow, slough, or open area where it hunts for mice. It is not shy and will often allow people to approach within 50 feet before flying. It will usually fly a couple of hundred yards before alighting. It has a deep-pitched booming call, "hoo-hoo-hoo," which it gives at night or occasionally on overcast days.

**Life history:** Great Gray Owls, like all other owls, do not build nests but rely on old nests of hawks. In Alaska these owls prefer goshawk nests but also use raven nests or broken-off rotten tree tops. Great Gray Owls start visiting the nest site in March when the nest often is still covered with snow. The owl lays from 1 to 9 white eggs during April or May, depending upon how far the spring season has advanced. The eggs are incubated about 30 days and usually hatch in June. During years of low rodent numbers, Great Gray Owls may not breed, and when they do, the number of eggs laid is related to food abundance. That is, in years with lots of mice, the owls tend to lay more eggs and more young survive the nestling stage. At 3 weeks of age, when the young still cannot fly, the nestlings hop from the nest and climb about the nearby trees and shrubs. There is no evidence that this species of owl migrates in Alaska, but the owls may move long distances when mice are scarce.

**Foods:** The Great Gray Owl hunts by perching on a tree overlooking a meadow or open area. The owl's keen hearing enables it to accurately determine the location of its prey, even under two feet of snow. Once the owl locates some food, it silently glides from its perch and plunges into the snow to grab the rodent with its talons. Fresh "plunge marks" will occasionally show an imprint of the owl's outstretched wing feathers where the owl dropped into the snow. In many areas these marks are often the only indication that Great Gray Owls are in the area.

In Alaska the diet of the owl has been determined by analysis of regurgitated pellets, which contain undigested bones and hair. Dissection of the pellets reveals the remains of skulls and lower jaws which can be identified. Small rodents composed 94 percent of the diet while other mammals (mainly shrews) and birds composed the remainder.

**Conservation and management:** The Great Gray Owl is common only in select areas of Alaska and is seldom seen by people. The main factor that limits distribution is the availability of nest sites. If there are sufficient nest sites, then other factors such as food supply, determine how many owls live in the area. Since the nest platform is an old, used nest, it is often quite shaky. In one study, two out of five nests fell down before the young could leave the nest. The main predator of the Great Gray Owl is the great horned owl, although both of these birds are often harassed by ravens and other small birds.

Wildfires, which can increase mouse populations and create suitable stumps on which to nest, are beneficial to the owls. The Great Gray Owl is protected by both state and federal law. However, in Interior Alaska, Athabaskans consider the bird edible because the owl is often fat during the winter. They have named the owl *Nuhl-tuhl*, or "heavy walker." It is traditional among the Athabaskans that only the elders will eat the bird because it is believed if a young person eats it, that person will grow up quickly and die.

The owls are considered beneficial to man because they eat rodents which compete with humans for food crops. This is one of the most sought after species by bird watchers. Anyone seeing this magnificent bird is lucky indeed.

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