



## Northern Hawk Owl

The **northern hawk owl** (*Surnia ulula*) is a fairly common bird of the boreal forest in Alaska. It is, however, subject to population fluctuations and may at times be rare. It occurs throughout the forested areas of the interior, southcentral, and southwestern (including the Kodiak archipelago) parts of the state. The species has a circumpolar distribution from Norway, across the Soviet Union, through Alaska, and into eastern Canada. The owl is a local resident and does not regularly migrate; however, it is subject to food related movements which can cause it to be found outside its normal range. Due to population irruptions it may be found almost anywhere in the state. The owl is atypical of most owls because it hunts during daylight hours, using sight more than hearing to locate its prey.

**General description:** The northern hawk owl is so named because of similarities in both behavior and appearance with typical hawks. The owl is of medium size, about 13 inches long (33 cm) with a wing spread of 30 inches (76 cm). It has a small facial disk which is abbreviated in the brow region over the bright yellow eyes. The wings are large and, unlike those of most owls, pointed at the ends. The tail is very long for an owl and tapers at the end. The underside is marked with fine black transverse bars on white. When the bird flies, the pointed wings, long tail, and swift flight appear hawk-like.

The northern hawk owl is usually found perched on the top of a low tree or shrub from which it can scan open areas for its prey. The hawk owl hunts mainly during daylight, but in winter it also hunts at night. Its hearing is not so well-developed as other night-hunting owls.

The call of the bird is rather varied with up to eight different calls. One is a hawk-like chattering "ki-ki-ki-ki" repeated about 12 times. The owl also makes some calls which sound more like a parakeet than an owl.

The owl occurs in the coniferous and deciduous forests where there are openings or where the trees are widely spaced. It can also be found in open tundra areas where there are tree-lined watercourses. It avoids dense coniferous forest, but habitat requirements are mostly influenced by its prey populations. Open areas are required for hunting, and trees are needed for nesting or roosting. The number of owls is limited by nest site availability and the density of small rodents.

**Life history:** The northern hawk owl does not build a nest. It lays its eggs in cavities in the broken tops of rotten trees or in large holes in trees. The owl is not afraid of people and will nest close to human settlements. The tolerance of the owl to man and urban disturbances is unusual. The owls are territorial and the closest distance that has been found between nests is 132 yards (1/8 km). In Alaska the hawk owl will start laying eggs from mid-April to mid-May. The owl lays from 3-12 eggs, depending upon whether food is scarce or abundant. Only the female incubates the eggs; the male hunts and brings food to the female. Usually the male will perch within 100-200 yards (90-180 m) from the nest. The persistent presence of a single owl during late April is usually an indication that a nest is somewhere nearby. Incubation begins when the first egg is laid. It hatches about 28-35 days later, and the rest of the clutch hatches on subsequent days in the order laid. If food is plentiful, the younger nestlings will survive; but if food is scarce, only the oldest and largest nestlings will get food and the smaller young will perish. The young leave the nest when 20-22 days old, well before they can fly. Hawk owls are very aggressive at their nests and will attack any intruders. This is especially evident just after the young have left the nest. After the young are large enough to hunt for themselves, they disperse extensively within the boreal forest zone in response to food availability. When Alaska vole populations have sudden declines, the lack of prey can cause large numbers of owls to be found farther south than normal.

**Food:** According to one study in Denali National Park, 94 percent of the hawk owl's diet is red-backed voles and mice. This owl will occasionally take insects, mammals as large as hares, and birds as large as grouse. They will also cache surplus food such as mice near the nest. The owl may take a higher percentage of birds during the winter when mice are more difficult to hunt. The owls regurgitate small pellets of bones and hair.

**Conservation and management:** The main predators of the hawk owl are great horned owls and northern goshawks. Smaller birds will harass any owl perched in the open as a potential predator. The harassment does not lead to physical injury, but it may displace the owl from favorable perches overlooking good rodent hunting areas. In Alaska, the hawk owl is the only raptor present all year which hunts rodents by sight. Conserving dead trees which can be used as nesting sites is probably the only conservation measure that man can undertake to aid this owl. Northern hawk owls benefit man by eating "agricultural" pests; however, most of the voles eaten are not serious competitors with man for food crops. The hawk owl is protected from hunting by both state and federal laws.

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Revised and reprinted 1994

