

THE GREAT GREY OWL

by Shalene Takara

The Great Grey Owl, or the *Strix nebulosa* (of the family, *strigidae*), is a majestic and uncommon member of the owl family. It is also the largest of its species, although its fluffy feathers often mask its actual body size. A stealthy hunter, its wing-beats are barely audible, and its ears are so finely-tuned that it can detect prey that is buried deep within a snowdrift. It is not afraid to plunge into snow for its prey. .

CHARACTERISTICS

The Great Grey Owl is the largest owl in North America, though it is outweighed by the Great Horned Owl which weighs in at 1.46kg. Its fluffy feathers give the owl a larger appearance than its actual body size—it only weighs in at about 771g. The length of the bird is 61-84cm and it has a wingspan of 137-152cm.

This owl is characterized by its lack of ear tufts, a white moustache, a black triangular beard, and yellow piercing eyes. This bird also has large facial discs, encircled with dark grey concentric circles that make the eyes appear small. It has a distinctly long tail and a relatively large head. Its under-parts are heavily streaked with brown and white, its toes are densely-feathered, and it has a distinctly long tail. The plumage of both sexes is similar. When in flight, it displays barred feathers that vary from darker and lighter grey to greyish brown.

LIFE CYCLE

The Great Grey Owl averages a life span of 7 years in the wild, but has been known to live up to 27 years in captivity.

The female lays 1 brood per year, and naturally lays more eggs when food is abundant. The female lays eggs at 2-day intervals. The eggs are pure white in colour and are about 54mm x 43mm in size. Incubation (also performed by the female) is about 28-36 days, and the eggs hatch at the same interval as the laying.

The young remain in the nest from 21-28 days. During this time, the nest begins to acquire the smell of the fledgling's waste which attracts predators, so the female normally encourages them to leave the nest for their own safety. At this time, they are still not yet able to fly, so they normally climb out and perch in their nesting tree or in nearby trees. At this time, the female may depart, but the male stays with the young, feeding them and caring for them for up to 3 months. By the age of about 5-6 weeks, the fledgling are able to fly. They reach sexual maturity at the age of 1 year.

HABITAT

The range of the Great Grey Owl ranges from Siberia to Alaska across the Bering Sea. It then spans across Northern Canada to Hudson Bay and dips down the Rocky Mountains to North California, Wyoming, and Idaho.

Their preferred habitat is deep boreal forests and open swamps and clearings. They like to nest and roost in densely-forested areas then hunt in nearby open spaces such as bogs and meadows. Their preferred roosting trees are spruce and pine, and mixed birch, larch and poplar, though sometimes they will use the top of a tree stump or (more rarely) an indentation in the ground to nest. Often, they take over the abandoned nests of other larger birds, such as osprey, to raise their young, and have been known to take aggressive action to scare other birds away from their nests.

Great Grey Owls of the North and South differ in migratory patterns due to their diet. The Great Grey Owls of the north feed exclusively on voles, so when the vole population booms or busts, the owl migrates accordingly, seeking the greatest food source. If a place where it has previously resided no longer has a food source, it may not return there until the food supply increases again. Thus, they live a relatively nomadic lifestyle. Great Grey Owls of the south, however, have more of a varied diet. They diet on various small rodents and are not restricted to just one kind. This ensures that there is almost always a food source available, leading to a more stable, settled lifestyle.

BEHAVIOUR

The song of the Great Grey Owl is a deep, mellow, booming, “hoo-hoo-hoo”. It also utters single-note hoots. Its call is not remarkably loud but it can be heard for long distances on quiet nights. The female is also known to emit a hoarser, higher-pitched song, particularly during courtship or when seeking food from its mate for its young. Its breeding call is often heard in March and May, but may also be heard in autumn. Both adults have also been known to make guttural sounds.

When flying, its wing-beats are soft and slow. While the Great Grey Owl is primarily a nocturnal animal, it is also often active in daylight, particularly during breeding season. When hunting, it first listens and watches from a perch. Then when it locates its prey, it swoops down and catches it in its talons. This owl is often seen flying low over open areas and locates its prey primarily by sound.

When hunting, the Great Grey Owl’s large facial discs give it a distinct advantage over other predatory animals as the discs funnel the sound of hidden animals towards its ears. This owl is also known to dive into thick snow to catch animals that are burrowed deeply within. In fact, it has been noted to penetrate snow crust thick enough to hold a 180-pound person.

These owls are a monogamous species, and are spotted either singly or in pairs. These birds often spend time preening each others feathers, and rearing their young is a joint effort. When the female is nursing, it stays at the nest while the male goes hunting for food. When the male then

returns with food, it feeds it directly to the bill of the female who, in turn, feeds it to the young. When food is scarce, the female owl is primarily concerned with feeding her young the maximum food available. Thus, she will often sacrifice her own food for her fledglings, starving herself and losing up to half her bodyweight. When nesting, the Great Grey Owls also become aggressively protective of their young and have been known to attack anything from humans to lynxes to bears if they dare to get too close.

THREATS

Widespread food shortages during winter are disruptive to the migratory patterns of the Great Grey Owls and have forced it to migrate further south than their normal wintering range, into habitat they are unaccustomed to, and sometimes into urban areas and human settlements.

The range of its habitat has also been impacted and decreased by human activity, and some population decline is suspected to be due to this habitat loss, particularly in the southern part of its range. However, its population is mostly dependent on rodent populations (this applies primarily to the Great Grey Owls of the northern region).

Luckily, population drops have mostly been attributed to natural causes (such as fluctuations in vole populations and food availability during the winter), and their population, has been noted to be stable. However, humans must be careful that their activities do not disrupt the balance of this rare and uncommon species. The greatest threats that humans pose to the species are habitat loss and disturbance. Hunting and wild-bird trading also threaten the species, but they are protected by law through-out their range.

WHAT WE CAN DO TO HELP

We need to maintain a sustained effort to conserve the habitat of the Great Grey owl and to protect them and their prey from disturbance or destruction. This means preserving boreal forest from clear-cutting, acid rain, and pesticides.

The provision of artificial nesting platforms and roosts mounted in trees has been noted to be successful in Sweden and Canada and may help in safer breeding. In Sweden, nest boxes have also been successfully used.

When the range of the owl's habitat expands beyond its established range, the laws protecting this species should be modified to cover the new range, ensuring continued protection against hunting and wild-bird trading.

OTHER INTERESTING FACTS

The Germans refer to the Great Grey Owl as *Bart kauz*, or 'bearded owl' due to the black patch beneath its chin which resembles a beard.

Scientists are still puzzled by the Great Grey Owl because its biology raises questions about its relationship to other members of its genus *Strix*.

The Great Grey Owl was named the official bird of Manitoba, Canada in 1987.

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