

## The Snowy Owl

(One of a series from *Hinterland Who's Who by the Canadian Wildlife Service.*)

The robust Snowy Owl (*Nyctea scandiaca*) of the North is a winter visitor to southern Canada only every five years or so. It is on these periodic visits that southern Canadians have a chance to see one of the most striking and distinctive of the 123 types of owl in the world.

They breed on the arctic tundras of the world. The arctic islands, from Ellesmere in the north, Baffin in the east, and Banks in the west, and the northern coast from the Yukon to Labrador compose the Canadian breeding range. All areas of the range are not used in all years.

### Appearance and habits

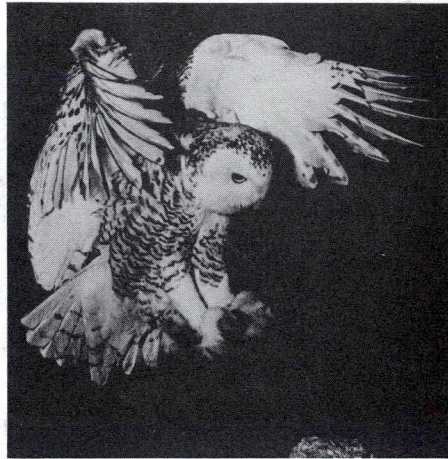
The Snowy Owl measures 55.9-69 cm and has a wing span of about 1.5 m. The female is larger and heavier than the male, as is the case with large hawks and owls.

The male is almost pure white; the female, her white feathers generally tipped and barred with dark brown, is darker. A dense layer of down next to the skin is overlaid with thick lightweight feathering. This luxurious coat insulates the entire body, including the legs and toes, and enables the bird to maintain a body heat of 38 degrees to 40 degrees C in temperatures that may reach -40 degrees to -50 degrees C. Acute hearing enables the Snowy Owl to hunt by sound in total darkness, when it cannot see.

The eyes of owls are directed forward and do not move in their sockets. To look to the side or to follow a moving object, the bird swivels its head as much as 270 degrees, giving the impression that it will twist its head off. These highly developed eyes contain many light-gathering cells, many more than the human eye, and can spot tiny objects moving at a great distance.

Unlike its nocturnal relatives, the Snowy Owl is active by day. As daylight is almost continuous within the Arctic Circle during the summer nesting season, this adaptation to hunting in daylight is not surprising.

The bird is shy and silent, unless nesting. It normally will not permit humans to approach and will hiss and



scream at those intruding on its territory, but it will dive only in defence of its nest.

### Feeding

Although fast enough to kill ducks and geese on the wing, the Snowy Owl prefers small mammals. It eats arctic hares and ptarmigans, but its staple food is the lemming. The Snowy Owl's four- to five-year invasions of the south are keyed to the population lows to which the lemming is subject.

Snowy Owls, as well as hawks and other types of owl, usually swallow their prey whole. Strong stomach juices dissolve the flesh. The indigestible bones, fur and teeth are compacted into neat pellets, which the bird throws up by stretching its neck and opening its bill wide. Regurgitation most often takes place at the owl's favourite perch, where hundreds of pellets are sometimes found.

### Breeding

Snowy Owls that winter in southern Canada and northern United States begin moving northwards to their arctic breeding grounds in February and March. Most are well on their way by April.

Their nesting habits depend on how many lemmings are available. When food is scarce, the owls may not nest at all, or may lay only four eggs. When it is plentiful, they make up for lost production by laying up to ten eggs, but 11 to 14 are known. A single egg is usually laid on alternate days, depending on the amount of food available to the female.

The female begins incubation when she lays the first eggs. Hatching takes from 32 to 33 days and laying continues

into the brooding period. As a result, large clutches contain down-covered chicks of many different ages and colours since the down changes from white, just after hatching, to dark grey and to nearly black at ten days old. Overcrowding problems in the nest are avoided by chicks leaving it when only two to three weeks old, an age long before they fly. They disperse widely from the nest and each one is faithfully fed by the male, who also supplies the nest with adequate food. Fledging occurs at eight weeks, at which time the dark down is replaced by flight feathers.

### Value to humans

This species has adapted to the very cold arctic winters and has become deeply intertwined with other living creatures in maintaining nature's balance.

During its visits to southern Canada, the Snowy Owl plays a valuable role in the natural control of rodents on farmland. It shares its breeding grounds with colonies of Snow Geese and offers that game species some protection from foxes and jaegers.

## Canada/U.S. Law Institute

Canadian Ambassador to the United States, J.H. Warren, attended a lunch last month at Case Western Reserve University, Cleveland, Ohio, to mark the inauguration of the Canada/U.S. Law Institute.

The Institute offers a unique opportunity for Canada/U.S. legal studies in international, transnational and comparative law. During the first year, students from each university will enroll in courses at the other, faculty members from both will offer guest lectures, and the first in a series of annual conferences on legal issues of common concern to Canada and the U.S. will be held.

Financial support for the Canada/U.S. Law Institute is provided by the Canadian Embassy, Washington; the United States Embassy, Ottawa; the Ontario Law Foundation, Toronto and the George Gund Foundation, Cleveland. The Canadian Government is pleased to be able to make such a contribution during the celebration of the U.S. Bicentennial.