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## The secret life of snowy owls

**“We’ve had the biggest surprises and more questions are coming out.”**

JANE GEORGE

Call these distinctive white owls what you will - ookpik, "tundra ghost" or harfang du neige - but there's one thing about snowy owls that everyone can agree on: little is known about these Arctic birds.

Solitary predators, snowy owls are the ultimate nomads, roaming across northern Canada in search of their favourite food - lemmings.

Hunters in Pond Inlet, across from Bylot Island where snowy owls often nest, have noted the owls' annual comings and goings. Some years, they see more birds, some years less, and the owls never seem to show any attachment to a particular nesting site.



Marten Stoffel, a technician from University of Saskatchewan in Saskatoon, releases a snowy owl with a satellite transmitter on its back.  
(PHOTOS COURTESY OF GILLES GAUTHIER)

In winter, the snowy owls leave, and, until this year, no one was sure exactly where they went.

To find out where the snowy owls winter, researchers from Laval university's northern studies centre, le Centre d'études nordiques, attached satellite transmitters on to 12 adult female owls last summer.

What they learned surprised them.

"We've had the biggest surprises I've ever had and more questions coming out," says biologist Gilles Gauthier.

One of the satellite-tagged snowy owls ended up near St. John's, while another flew all the way to North Dakota, several thousand kilometres away from Bylot Island.

Two headed north to spend the winter on Ellesmere Island, where their thick feathers and down-covered feet protected them from the cold, although most went south to southern Baffin Island, Nunavik and near the Belcher Islands.

"A big surprise was that all of them spent a big proportion of their time on the sea ice far from the coast, in some cases up to three months," Gauthier says.

Researchers now plan to compare their routes with satellite images and see whether the owls stayed around the polynas, where snowy owls have been seen, picking off eiders swimming in the open water.



Although snowy owls are often spotted in southern Canada, generally these are young birds not planning to breed the following year. Those birds travel further south and away from nesting grounds as they scout for food during the winter.

Nine transmitters are still sending back good information. They show nearly all the owls who nested last year on Bylot Island are back in the southern Baffin region, although none returned to Bylot Island.

Hunters near Iqaluit say they're seeing more snowy owls than ever before, the large, yellow-eyed white birds being easily recognizable.

Researchers plan to go out this summer by helicopter and look for the owls that returned to Baffin Island, but they still wonder why none returned to Bylot Island where there are lots of lemmings this year.

The snowy owl, official bird of Quebec, has many names: arctic owl, great white owl, ghost owl, ermine owl, tundra ghost, ookpik, scandinavian nightbird, white terror of the north and highland tundra owl.

The "oddball" snowy owl, who spent the winter in North Dakota, is still far from Baffin Island, and is likely not planning to nest, according to Gauthier. Earlier this spring, she headed up through Manitoba, past Rankin Inlet and northwest to the Queen Maud and Banks Islands. She's now past Prince Patrick Island in the most northerly part of the High Arctic islands - a trip that seems to show there's no distinct Nunavut-based population of snowy owls.

Gauthier estimates that snowy owls number in the thousands, although their population size is extremely hard to gauge.

But how do snowy owls ever manage to link up with mates and breed if they migrate on their own for long distances and don't return to the same place?

"We simply don't know. We do not know if pairs form once birds arrive on a breeding territory, or on the wintering ground, and then male and female migrate together in spring," Gauthier says.

However, there are no plans to tag more owls from Bylot Island this year to answer this question.

Pond Inlet's hunters had worries about the procedure, although Gauthier says attaching the transmitters is less invasive than it looks. Last summer, no birds were hurt during the procedure, which requires no tranquilizing, and none abandoned their nests afterwards, he says.

The researchers' study of birds has also confirmed that snowy owls are linked to a complex ecosystem - something Inuit already knew.

For example, nesting snowy owls will protect geese nests nearby from attacks by foxes, jaegers or even wolves. Snowy owls may sometimes pluck off goslings, but they leave the eggs alone.

At a workshop on snowy owls, held this past March in Pond Inlet, this legend was told about a snowy owl who married a goose: "They were together and they went over water for some reason. As the owl did not want (or like) to settle on free water, he stood on the back of his geese partner but made her sink and she died. This is why snowy owls tolerate many goose nests around their own without attacking them and that the two species nest in association during the love period."



Snowy owl eggs hatch about five weeks after they're laid, and both snowy owl parents take care of the young owlets.

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