

Which snowy owls thrive in Saskatchewan's winters

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Researcher Karen Wiebe collects data on the condition of a Snowy Owl on the Canadian prairie. Credit: K. Jacobsen

Snowy Owls capture the imagination, but ornithologists know surprisingly little about how these birds of the far north fare during the harsh winters they endure. The researchers behind a new study in *The Auk: Ornithological Advances* trapped and tracked Snowy Owls wintering in Canada and found that while age and sex affect the birds' condition, most do fairly well, showing few signs of starvation and some even putting on weight over the winter months.

Female Snowy Owls are bigger than males, and Alexander Chang and Karen Wiebe of the University of Saskatchewan expected that their dominant behavior would give females access to greater food resources during the challenging winter season. Their results bore this out—females tended to be in better condition than males, and adults, with their greater hunting experience, tended to be in better condition than juveniles.

It's widely believed that Snowy Owls that winter south of the Arctic tend to be struggling, starving birds that only move south because they can't find enough to eat at home, but few of the adults captured in the wild showed signs of starvation. Surprisingly, many of the adult birds in the study actually increased their fat stores slightly over the course of the winter. Well-insulated against the cold and not distracted by the demands of reproduction, Snowy Owls may use winter as a time to recharge and build up their reserves before returning to their breeding grounds.

Much of the data for the study was collected by two retired farmers,

Marten Stoffel and Dan Zazelenchuk, who discovered a love of owls and pursued raptor banding as a hobby. "They had no intention of analyzing data, but spent numerous hours in the field in grueling sub-zero weather honing their trapping techniques and drinking liters of coffee while waiting—sometimes hours—for an owl to come to a trap," says Wiebe.

"This study by Chang and Wiebe nicely shows that most [snowy owls](#) wintering in the Prairies are in good body condition and, contrary to a commonly held belief, are not starving despite the harsh environmental [conditions](#) that prevail in [winter](#)," according to Gilles Gauthier of Quebec's Université Laval, an expert on Arctic wildlife. "This study clearly documents differences in body condition between age classes and sexes. The results are very robust, as they are based on large sample sizes spanning a period of almost 20 years."

More information: "Body condition in Snowy Owls wintering on the prairies is greater in females and older individuals and may contribute to sex-based mortality" will be available August 31, 2016, at www.aoucospubs.org/doi/abs/10.1642/AUK-16-60.1

Provided by The Auk

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