How a Snowy Owl hunts Bonaparte's Gulls on the wing

Stuart A. Mackenzie

Dietary preference and predatory behaviour of the Snowy Owl (Bubo scandiaca) have been fairly well documented across their range which spans arctic and subarctic landscapes of North America and Asia (Parmalee 1992). On the breeding grounds they rely heavily on cyclic populations of lemmings (Dicrostonyx, Lemmus sp.) (Parmalee 1992, Gilg et al.) Predatory behaviours are as diverse as their prey. The faithful 'sit and wait' routine, common among many raptors, appears to be the preferred method for taking small mammals (Boxall and Lein 1982). Taking advantage of opportunity however, often requires creativity. Some of the earliest descriptions of the owls predatory behaviour describe an individual snatching fish out of water holes (Audubon 1840). They are also very capable at catching prey in flight; whether it be chasing down ptarmigan and other birds on the tundra (Parmalee 1992), ducks and grebes along the coasts (Campbell and MacColl 1978, Robertson and Gilchrist 2003), or murrelets and alcids on the Aleutian Islands (Williams and Frank 1979). It is therefore likely that gulls may make up a large proportion of the diet of those owls that win-

ter in the Great Lakes region and other areas where gulls are abundant (other coastal regions and landfills).

There were a large number of Snowy Owls in the mid-latitudes of North America in the winter of 2009 (Ontbirds and other list-serves), with many birds lingering well into April. When the Long Point Bird Observatory staff and volunteers arrived at the eastern Tip of Long Point on 2 April, an adult Snowy Owl was present at the Tip, remaining until the 14th. For those 12 days nary a gull would share space at the Tip with the owl. On our first wander around the Tip we noticed a suspiciously high number of carcasses and remains of Bonaparte's Gulls (Chroicocephalus philadelphia) scattered along the beaches. I suspected that the owl probably had something to do with it, and my suspicions were confirmed on the morning of 6 April when it was observed feeding on fresh remains. In total, the remains of at least 12 different individuals were identified during its residence. It's easy to imagine how the owl could have grabbed sick, injured or sleeping birds off the water or beach, but there is a big difference between opportunistic

and lazy. I've not yet met a raptor that was the latter, and this bird did not disappoint.

The owl spent the vast majority of its time sitting at the extreme eastern end of the Tip, perfectly content to be barraged by wind and blowing sand. It appeared to barely sleep, always having an eye fixed on the horizon, its admirers, or passing passerines and gulls. On most evenings its birding became more deliberate, particularly paying attention to the movements made by flocks of Bonaparte's Gulls. Shortly after sunset on the evening of 8 April the owl took flight, circling over the Tip before slowly descending to the water with purpose. As it approached the surface of the lake, its flight became difficult to discern at times from the white being scalped off the waves by the westerly winds. It quickly became apparent that this evening flight was a well choreographed, practiced routine - the hunt was on.

Within a minute the owl had reached a small roosting flock of about 100 Bonaparte's Gulls, which immediately took flight and proceeded to mob and pursue the owl as it approached. The owl was steadfast and continued west into the wind. Once the chase was initiated the owl stayed just ahead of the mob. Within about 500 meters it reached another roosting flock, this one of more than 500 birds, which also began a relentless chase. Yet again, in a disciplined fashion, the owl continued west, remaining slightly ahead of the mob. The majority of the gulls followed close behind as a circulating group of up to 50 took turns mobbing the owl. Unfazed, the owl continued until all of a

sudden it opened its long wings, which caught the wind like a parachute, slowing the owl to a near stop as it rode the wind into a position up to 6 metres above the now somewhat disarrayed flock. From this position the owl quickly dove into the mob easily challenging as many of the aerial acrobats as it felt was feasible. The owl rarely missed a beat, although of 5 observed 'attacks' (3 on 8 April, 2 on 9 April) only one was successful. When the owl missed, it would immediately re-initiate the chase and wait for the gulls to catch up and drop their guard. A few hundred metres along it would parachute above them again and take its pick of the flock. After a run at the flocks the owl would return to a favourite perch along the beach. Presumably this may have also been a clever way to learn where the gulls were roosting, in order to be able to pick one off under the cover of night.

This is yet another example of the opportunistic use of abundant regional and seasonal prey species by Snowy Owls, and speaks to their extraordinary abilities to track and hunt prey of all shapes, sizes, and niches. It used to be hard to imagine how an already deep respect for these owls could have grown, but as is usually the case, the more you know, the more you know you don't know.

Literature Cited

Audubon, J.J. 1840. The Birds of America. Vol. I. J.J. Audubon, Philadelphia. Reprint by Dover Publ., Inc., New York, 1967.

Boxall, P. C. and M. R. Lein. 1982. Feeding ecology of Snowy Owls (Nyctea scandiaca) wintering in Southern Alberta. Arctic 35: 282-290.

Campbell, R. W. and M. D. MacColl.

1978. Winter foods of Snowy Owls in southwestern British Columbia. Journal of Wildlife Management 42:190-192.

Detienne, J. D., D. Holt, M. Seidensticker and T. Pitz. 2003. Diet of Snow Owls wintering in west-central Montana, with comparisons to other North American studies. Journal of Raptor Research 42(3):172-179.

Gilg, O., I. Hanski and B. Sittler. 2003. Cyclic dynamics in a simple vertebrate predator-prey community. Science 302(5646):866-868.

Parmalee, D. 1992. Snowy Owl, Nyctea scandiaca. In The Birds of North America, No. 10. (A. Poole, P Stettenheim, and F. Gill, Eds.). Philadelpia: The Academy of Natural Sciences; Washington DC: The American Ornithogists' Union.

Robertson, G. and Gilchrist, H. 2003. Wintering Snowy Owls feed on sea ducks in the Belcher Islands, Nunavut, Canada. Journal of Raptor Research 37(2):164-166.

Williams, P.L. and L.G. Frank. 1979. Diet of the Snowy Owl in the absence of small mammals. Condor 81:213-214.

Stuart A. Mackenzie, Long Point Bird Observatory (or Bird Studies Canada), P.O. Box 160, Port Rowan, Ontario N0E 1M0



President: John Black. 17 Valerie Drive, St. Catharines, Ontario L2T 3G3 (905) 684-0143, E-mail: black@brocku.ca

Ontario Field Ornithologists is an organization dedicated to the study of birdlife in Ontario. It formed in 1982 to unify the ever-growing numbers of field ornithologists (birders/birdwatchers) across the province, and to provide a forum for the exchange of ideas and information among its members. The Ontario Field Ornithologists officially oversees the activities of the Ontario Bird Records Committee (OBRC); publishes a newsletter (OFO News) and a journal (Ontario Birds); operates a bird sightings listserv (ONTBIRDS), coordinated by Mark Cranford: hosts field trips throughout Ontario; and holds an Annual Convention and Banquet in the autumn Current information on all of its activities is on the OFO website (www.ofo.ca), coordinated by

Valerie Jacobs and Doug Woods. Comments or questions can be directed to OFO by e-mail (ofo@ofo.ca).

All persons interested in bird study, regardless of their level of expertise, are invited to become members of the Ontario Field Ornithologists. Membership rates can be obtained from the address below. All members receive Ontario Birds and OFO News. Please send membership enquiries to: Ontario Field Ornithologists, Box 455, Station R, Toronto, Ontario M4G 4E1.

ONTARIO BIRDS

Editors:

Ross James, R.R. #3, S1480, Conc. 7, Sunderland, ON, LOC 1H0 Glenn Coady, 330 Crystal Beach Boulevard, Whitby, ON. L1N 9Z7 Chip Weseloh, 1391 Mount Pleasant Road, Toronto, ON. M4N 2T7 Editorial Assistance: Ron Tozer, Ron Pittaway

Ornithology Consultants: Michel Gosselin, Ross James, Mark Peck Art Consultant: Barry Kent MacKay Advertising: Chester Gryski Design/Production: Judie Shore Printing: DTP Inc., Toronto The aim of Ontario Birds is to provide a vehicle for documentation of the birds of Ontario. We encourage the submission of full length articles and short notes on the status, distribution, identification, and behaviour of birds in Ontario. as well as location guides to significant Ontario birdwatching areas, book reviews, and similar material of interest on Ontario birds.

Submit material for publication by e-mail attachment (or CD or DVD) to either: rossjoann.james@sympatico.ca glenn coady@hotmail.com or chip.weseloh@ec.gc.ca Please follow the style of this issue of Ontario Birds. All submissions are subject to review and editing and may be submitted to peer review beyond that of the editors. For photographic material used in Ontario Birds the copyright remains in the possession of the photographers.