

**Manitoba's  
Nocturnal  
Owl Survey**

*Annual Report  
2006*

Great Gray Owl (*Strix nebulosa*)  
Photograph by Robert Taylor

Taylor



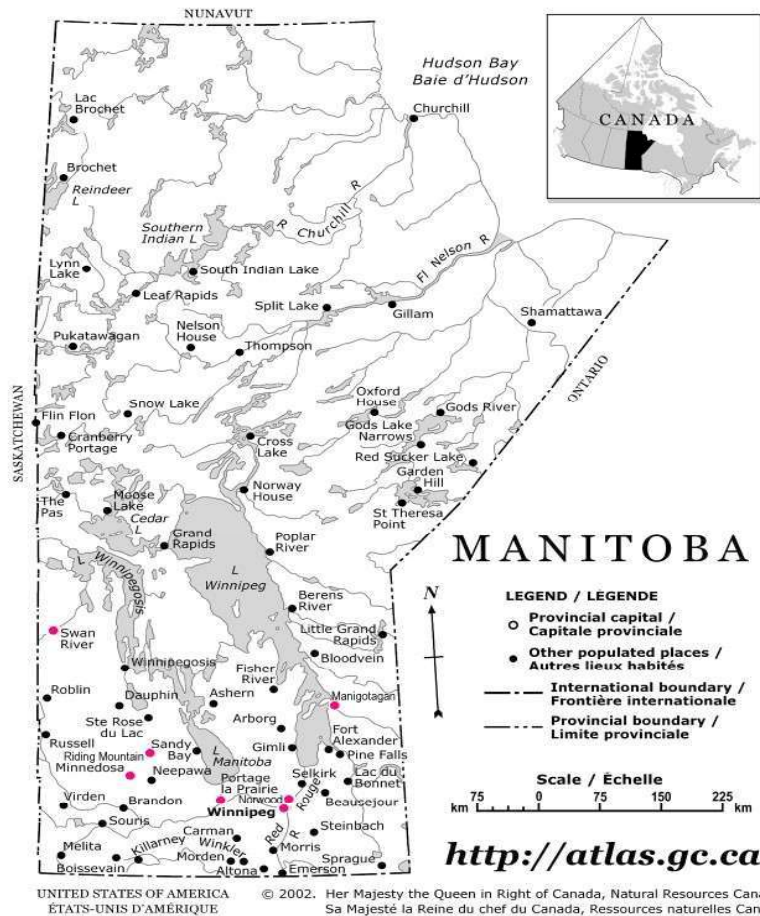
# Manitoba's Nocturnal Owl Survey

## Annual Report – 2006

by Alexandra Froese and Jim Duncan

The 2006 results of the Manitoba Nocturnal Owl Survey are presented herein. This survey continues to be an intricate part of monitoring nocturnal owl populations in Manitoba. The survey began in 1991 and would not be possible without volunteer owl surveyors. The year 2006 marks the 16<sup>th</sup> anniversary of this effort.

The main purpose of the owl survey is to detect nocturnal owls along routes throughout Southern Manitoba. This survey also brings people and wildlife together helping participants further appreciate the need to conserve habitat not only for owls but for all wildlife in Manitoba. The survey has been an ongoing success these past 16 years. Much has been learned about owl distribution, their habitat use, and their conservation status in Manitoba.



In 2005, Manitoba Conservation reassessed the status of all Manitoba birds with assistance from over 20 naturalists and biologists. Without the Manitoba owl survey data this assessment would have been limited in scope in regards to owl population trends. Owl survey volunteers are an integral part of data collection. Field information collected is crucial to this study, and can be used as a credible source of information for future studies of nocturnal owls in Manitoba.

Beginning in the year 2000, surveys no longer required owl call playback. Throughout the study years leading up to 2000 (1991-1999), owl call playbacks were used as a survey method. In 2008, there will be 9 years of survey data collected without the use of playback. Comparing survey data collected using playback with that collected without playback may provide a clearer outlook on the advantages/disadvantages to using these different survey approaches.

This year was the second year that materials and resources were sent to most volunteers by email. This change was essential for more efficient coordination of the survey and seems to have been very successful.

### Owl Survey Routes and Protocol

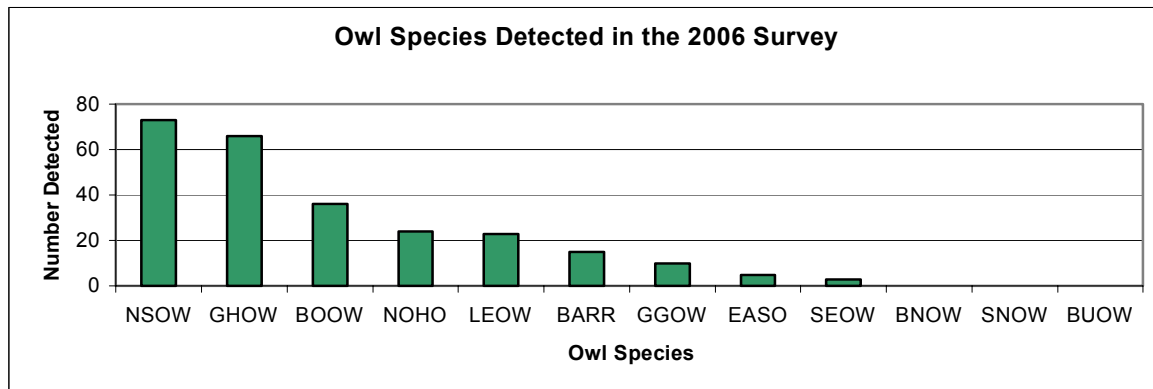
Most owl surveys were conducted in southern Manitoba. Routes consisted of at least 10 stops (listening stations) spaced 1.6 km apart. Some routes were sampled more than once on different nights. All the data received was included in this report. Routes where no owls were detected also serve as valuable information in the long-term monitoring of owl populations.

## 2006 Survey Highlights

The Manitoba Volunteer Nocturnal Owl Survey had another successful year. Ninety-one volunteers surveyed 65 routes (some more than once) covering 946 km and detected 262 owls. This was equivalent to one owl detected every 3.6 km -- the highest recorded number of owl detections per kilometer in the past 7 years.

Year	# Volunteers	Distance Surveyed (Km)	# Routes	Total Owl Detections	# Owl Detections per Km
2000	106	1085	57	165	0.15
2001	91	1070	57	180	0.17
2002	198	2403	115	315	0.13
2003	162	1776	107	267	0.15
2004	150	1304	94	183	0.14
2005	102	1067	74	135	0.13
2006	91	946	65	262	0.28

In previous years, results indicated the two most prevalent owl species were the Great Horned Owl and the Northern Saw-whet Owl. This high rank among owl species was sustained in 2006, with a total of 70 Great Horned Owls and 75 Northern Saw-whet owls detected, a large increase from numbers detected in 2005. Similar to last year, the Boreal Owl came in third place, and again no Barn, Snowy or Burrowing Owls were detected during this years' survey. The timing of this study is not optimum for detecting the latter 3 species, therefore it is understandable there are no or few detected every year in early spring. There was however, a rise in the number of Northern Hawk Owls and Long-eared owls detected (see figure below). The increase in numbers of Long-eared owls may be related to the large numbers of nesting sites that were discovered in the summer of 2005. Numbers remained relatively steady, with only a slight increase noted for Barred Owl and Great Grey Owl detections in 2006.

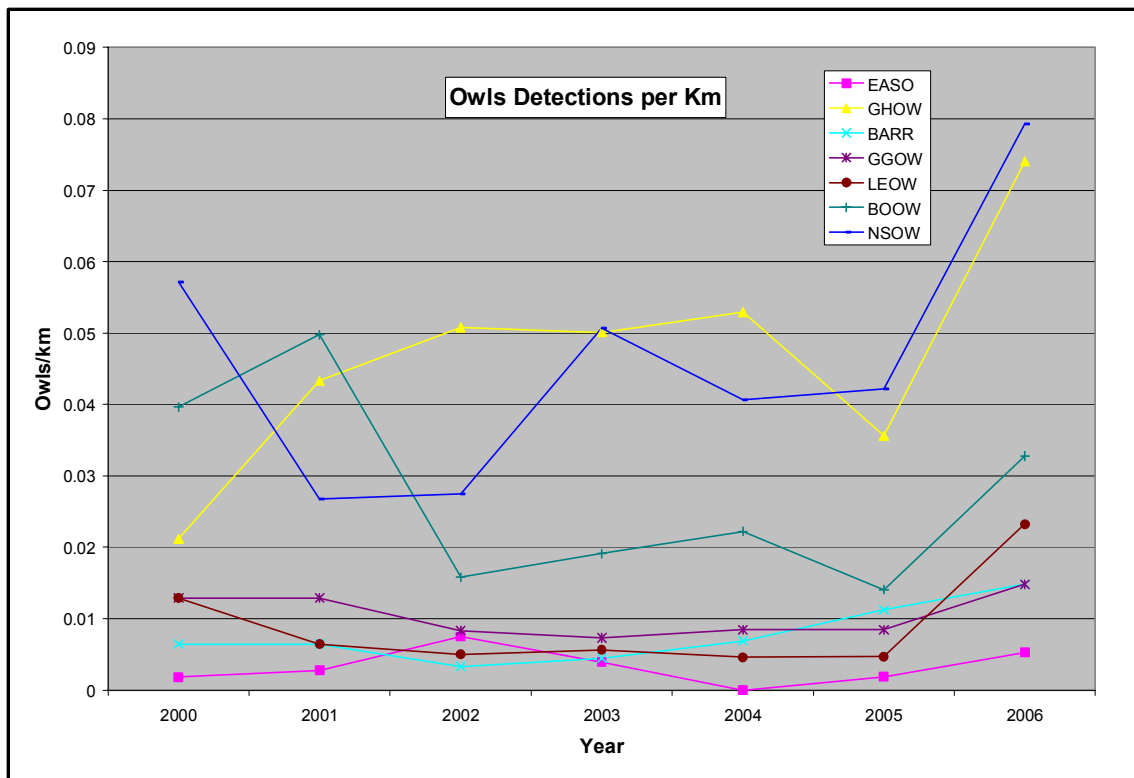


**OWL SPECIES CODES**

NSWO – Northern Saw-whet Owl, GHOW – Great Horned Owl, BOOW- Boreal Owl, NOHO – Northern Hawk Owl, LEOW – Long-eared Owl, BARR – Barred Owl, GGOW – Great Gray Owl, EASO- Eastern Screech Owl, SEOW – Short-eared owl, BNOW – Barn Owl, SNOW- Snowy Owl, and BUOW – Burrowing Owl. Please refer to these species' abbreviations for the following chart.

In 2000 the Manitoba nocturnal owl adopted a new standardized survey method to allow Manitoba's data to be combined with that from other owl surveys across Canada. In addition we stopped using owl playback as part of the survey. The chart below illustrates the number of owls detected per kilometer over the last 7 years without the use of owl playback. Please see earlier survey reports for data from 1991-1999.

All owl species surveyed has increased in 2006. The most dramatic increase was found in the Long-Eared owl with an increase of 20% detected. There continues to be a substantial rise in the Northern Saw-whet owl.



What is interesting to note from this chart is that between the years 2000 and 2001, NSOW detection plummeted, experiencing the lowest detection year within the non-owl playback study period. The survey also revealed that there were 3-year periods between saw-whet peaks (2000, 2003, 2006) and that 2006 had the highest detection for this species in the last seven years. The increase in all owl species detected in 2006 corresponds with an increase in vole and small mammal populations in southeastern Manitoba (J. Duncan, Unpubl. Data). Collecting and sharing owl and vole survey information with others will help decipher if Manitoba trends are local or widespread in other parts of North America.

### **Thank you to all the participant and volunteers of the 2006 Survey!**

Without the help, time and effort from volunteers this survey and research would not have been possible. Volunteers are an essential part of the survey and collect valuable data to make the exploration of Manitoba nocturnal Owls authentic. Thanks and congratulations on being a part of one of our peak detection years!

## 2006 Nocturnal Owl Survey Volunteers

Christian Artuso, Jeannette Astleford, Stewart Astleford, Ron Austin, Lois Belluk, Mel Belluk, Colin Bendell, Shannon Bretecher, Adam Brown, Tim Byers, Brad Carey, Ward Christianson, Lewis Cocks, Barbara Coombs, Kevin Coombs, Cal Cuthbert, Larry de March, David Doucette, Jim Duncan, Patsy Duncan, Bev Dunlop, Kyle Elliot, Darren Francis, Genevieve Francis, Ron Francis, Maureen Frolick, Shaun Galbraith, Marlene Gifford, Gord Hammel, Harry Harris, Lane Harv, Ken Kingdon, Andre Lansard, Elizabeth Lansard, Georgina Larson, Raymond Larson, Christian Lavergne, Irene Lyon, Jeannie Mackay, Kurt Mazur, Bonnie McLeod, David McLeod, Ernie McLeod, Ardythe McMaster, Don McMaster, Al Mickey, Matthew Miller, Lorelie Mitchell, Martha Moffat, Tom Moffat, Doug Nichol, George Nykulaik, Charlotte Pedwell, Morley Pedwell, Les Pelletier, Barb Pettinger, Ray Pettinger, Ryan Porteous, David Raitt, Justin Rasmussen, Ken Reddig, Amelia Reid, Dave Roberts, Alex Robinson, Amber Robinson, Barbara Robinson, John Robinson, Marion Robinson, Len Ryznar, Alex Sanderson, Lorna Sanderson, Alison Sexton, Elie Shannacappo, Ken Shykulski, Jo Swartz, E.Sharon Taylor, Peter Taylor, Joanne Tuckwell, Dave Uhryniuk, Piet van Dijken, Liis Veelma, Marlene Waldron, AngeleWatrin Prodaehl, Ted Wilson, Margaret Yorke, and Fred Young.

**If you participated in the 2006 owl survey and your name is not included on this list perhaps your records were not received. If this is the case, please contact Jim Duncan and he will update his records.**

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Northern Saw-whet owl in horse barn near Winnipeg. Photograph by Aprille Dalman

The Northern Saw-whet Owl (*Aegolius acadicus*) is the smallest owl in eastern North America. The Northern Saw-whet Owl is named for its call, which sounds similar to a file sharpening the teeth of a saw; a "whetting" sound. This species is a forest-dwelling bird that preys primarily on mice and small rodents. It breeds in forests across southern Canada and the northern USA. As in previous years, the Northern Saw-whet was the most commonly heard/seen owl in the 2006 survey.