

Manitoba Nocturnal Owl Survey

2013 Annual Report



Artwork by:
Courtney Gilchrist

Written by: C-Jae Breiter

This 2013 Manitoba Nocturnal Owl Survey Annual Report is dedicated to

Barbara Robinson (1919-2012)



Those who knew her will know that Barbara was a humble person who loved the outdoors and had a devotion to learning about animals, birds and plants. She was a self taught authority and shared her knowledge as the curator of the B. J. Hales Museum at Brandon University. She was a contributing author of *A Birder's Guide to Southwestern Manitoba*. As a member of the local Friends of the Bluebirds group, she cared for nest boxes, kept records of their use and travelled and attended annual meetings. In September 1987, she was presented an award for Outstanding Contributions to the North American Bluebird Society. She actively participated in the Brandon Naturalist Society, was one of the first to take part in local bird counts and faithfully volunteered at the Brandon Humane Society. Barbara and her family participated in Manitoba nocturnal owl surveys for 11 years (2002-2012). In the last number of years, she recruited the help of her sons Alan and John, John's wife Marion, grandson Alex, and partners when available, as some had more acute hearing. Barbara always brought homemade snacks for the end of the route. Although her health did not allow her to participate in the surveys her last couple of years, the family continued to take part and would bring home stories of their experience to share with her.

This past spring, more than 93 volunteers with a passion for birds and nature participated in the 2013 Nocturnal Owl Survey across Manitoba. Without the help of these volunteers year after year, the important information collected during this survey, would not be possible. Thank you all for dedicating your time (which happens to occur during the wee hours of the night) perhaps driven by the hope of hearing a hoot or two.

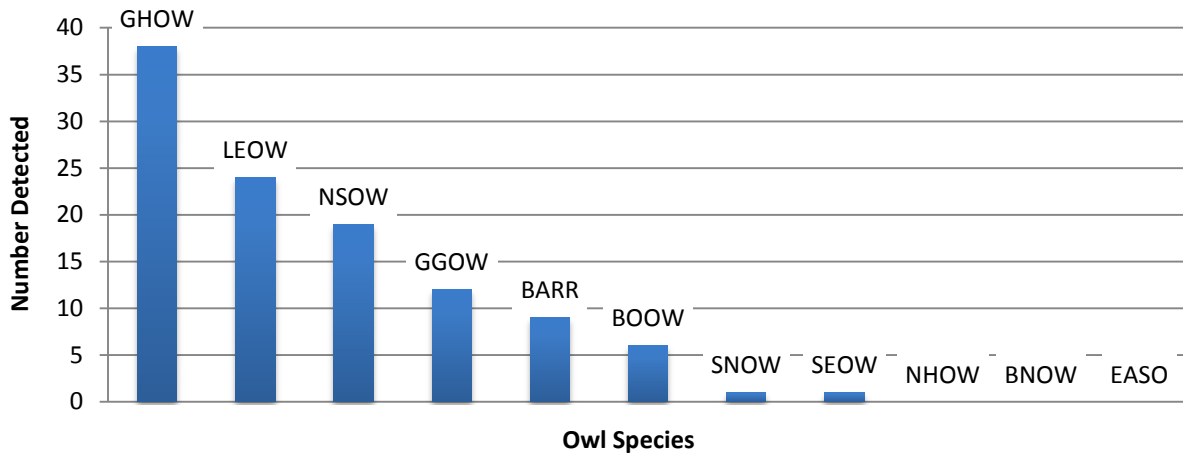
This nocturnal owl survey continues to provide important baseline data of owl populations in Manitoba that can be used and incorporated into research by students, scientists, and naturalists. The data collected in the owl surveys will also contribute to the Manitoba Breeding Bird Atlas, which documents the distribution and abundance of all breeding birds throughout Manitoba. If you would like more information or if you would like to get involved with the bird atlas, please visit the website www.birdatlas.mb.ca or call Dr. Christian Artuso at 204-945-6816 or toll free at 1-800-214-6497.

NOTE: Surveyors and assistants, please record UTM coordinates for every survey stop next season to ensure your data will be incorporated into the Atlas.

Year	# Volunteers	Distance Surveyed (km)	# Routes	Total Owl Detections	# Owl Detections per km
2000	106	1,085	57	165	0.15
2001	91	1,070	57	180	0.17
2002	198	2,403	115	315	0.13
2003	162	1,776	107	267	0.15
2004	150	1,304	94	183	0.14
2005	102	1,067	74	135	0.13
2006	91	946	65	262	0.28
2007	68	856	52	170	0.2
2008	78	1,213	73	144	0.19
2009	92	1,237	77	204	0.17
2010	94	1,514	94	254	0.19
2011	103	1,318	84	274	0.21
2012	102	1,830	114	397	0.21
2013	93	1,448	89	110	0.08
Total	1,530	19,067	1,152	3,060	0.17

2013 Nocturnal Owl Survey Highlights

Owl Species Detected in the 2013 Survey

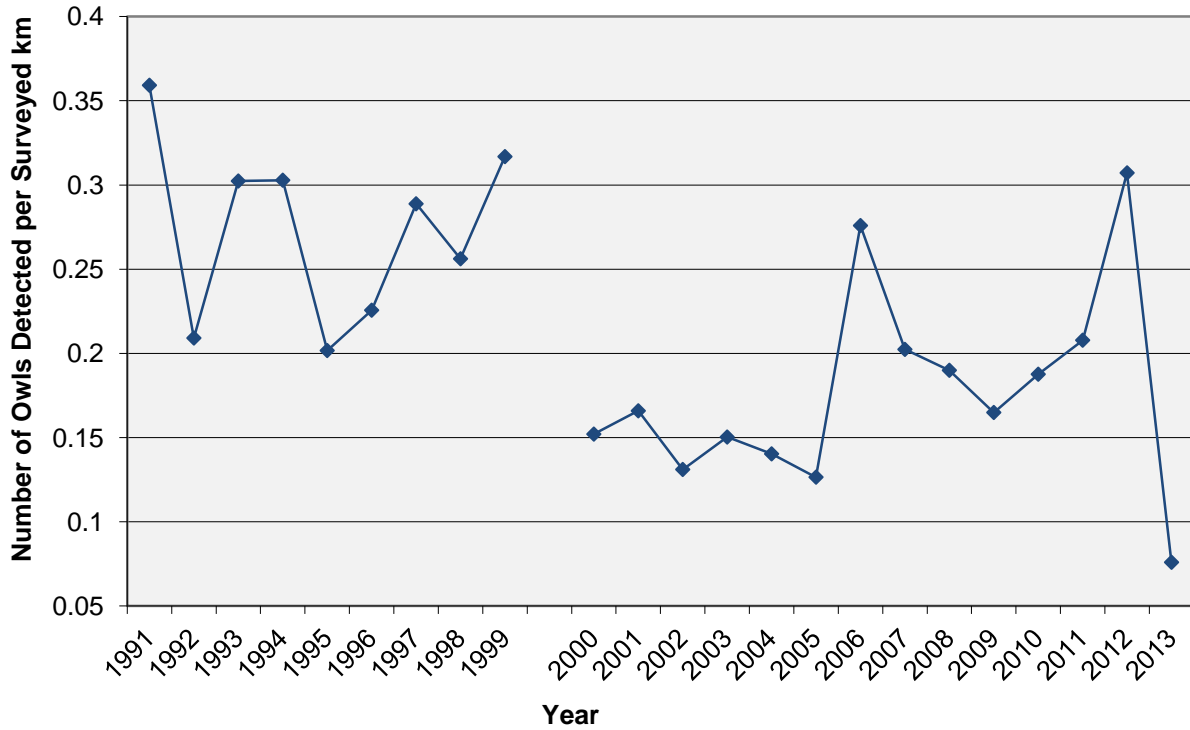


GHOW- Great horned owl	LEOW- Long-eared owl	NSOW- Northern saw-whet owl
GGOW- Great gray owl	BARR- Barred owl	BOOW- Boreal owl
SNOW- Snowy owl	NHOW- Northern hawk owl	SEOW- Short-eared owl
BNOW- Barn owl	EASO- Eastern screech owl	

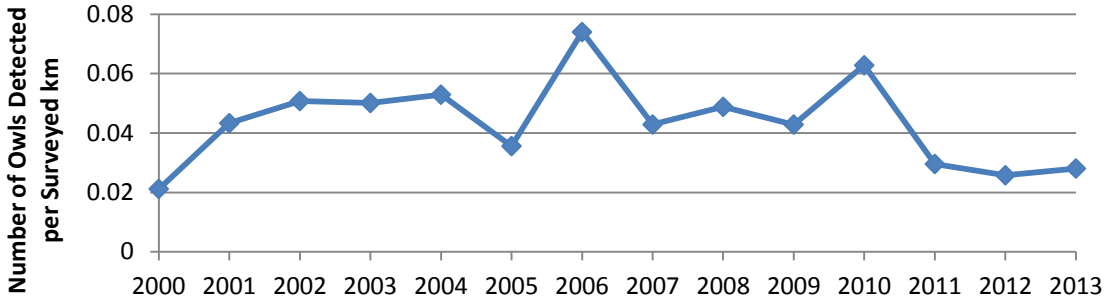
In 2013, Manitoba completed its 23rd annual nocturnal owl survey. A long, cold winter delayed the start of the survey but did not discourage 93 volunteers from strapping on their boots and opening their ears to the calls of the owls. A total of 110 owls were detected along 89 new, old, and modified survey routes (spanning a total distance of 1,448 km), resulting in a decrease in the number of owls detected per km from previous years (0.08 detections per km).

The most prevalent species over the last decade have been the Northern Saw-whet Owl, Great Horned Owl, and Boreal Owl. This year, owl data reflected the late arrival of spring. Owls were surveyed between late March until early May. Great Horned Owls (38) were the most frequently heard, followed by Long-eared Owls (24) and Northern Saw-whet Owls (19). There were few Great Gray Owls (12), Barred Owls (9), Boreal Owls (6), Snowy Owls (1), and Short-eared Owls (1), heard during the surveys as well; however, there were no Northern Hawk Owls, Barn Owls, or Eastern Screech Owls detected during the survey. Overall, a significant decline in the number of owls was detected in 2013 even though total survey effort was similar to previous years.

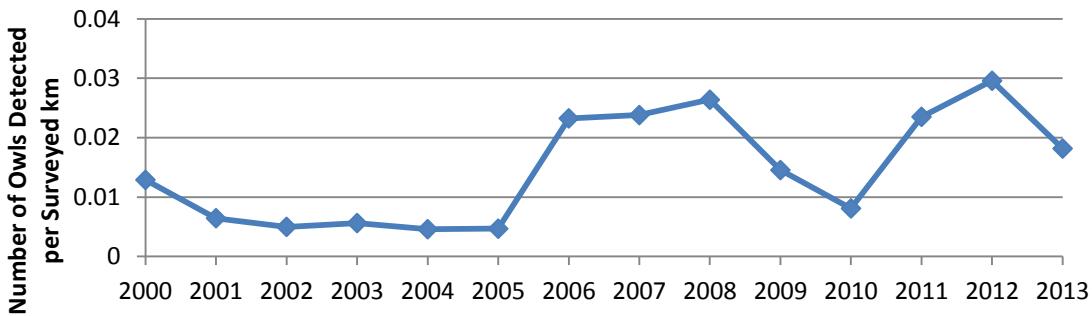
Total Owl Detections by Year



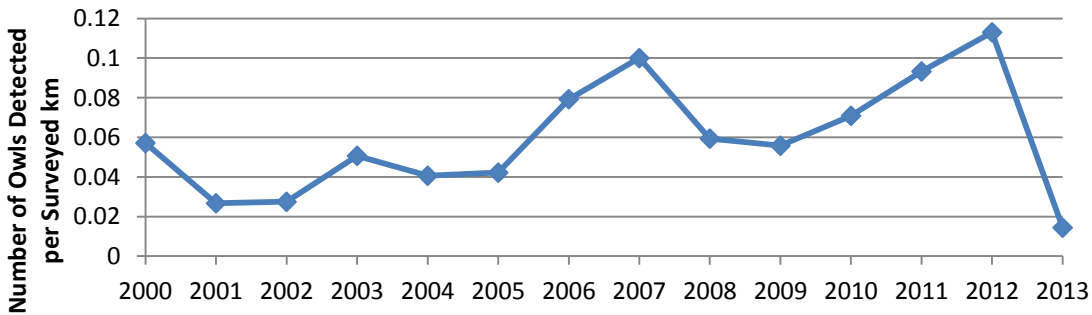
Great-Horned Owl



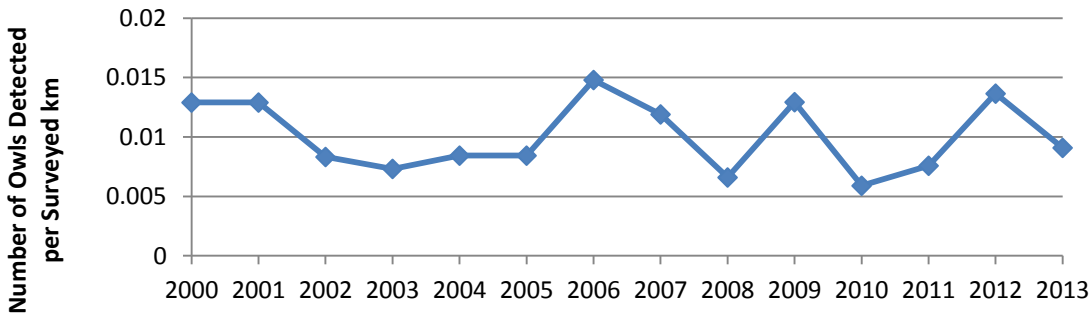
Long-eared Owl



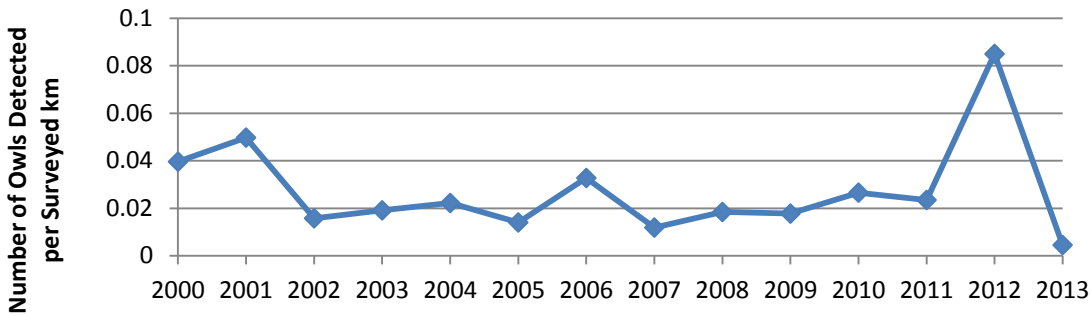
Northern Saw-Whet Owl



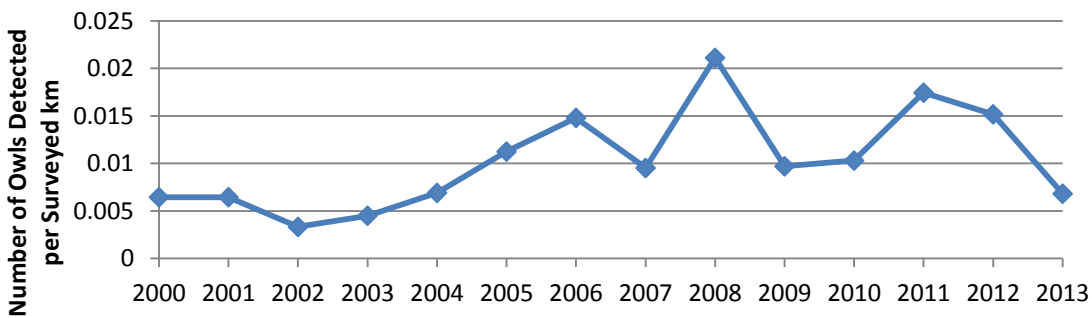
Great Gray Owl



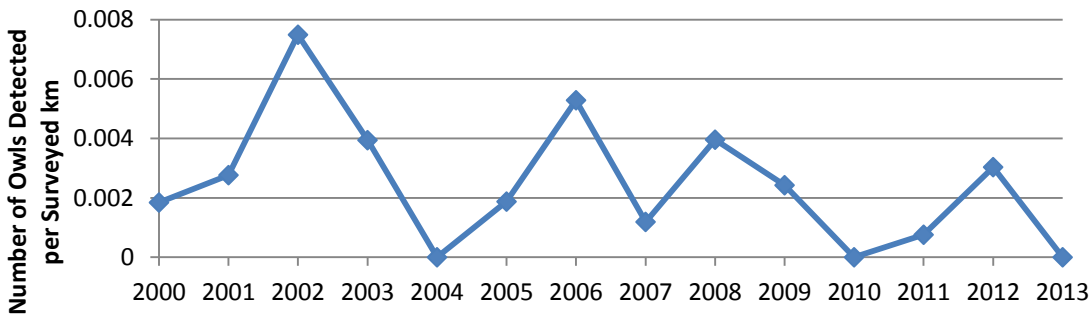
Boreal Owl



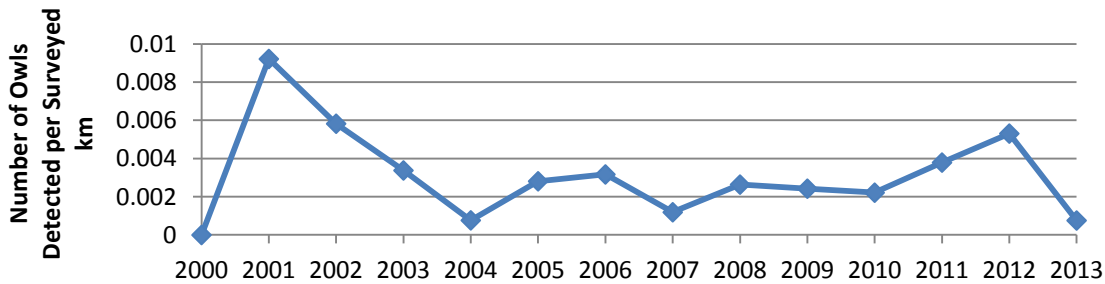
Barred Owl



Eastern Screech Owl



Short-eared owl





Congratulations to the "Champion of Owl Surveyors"

- Interview with Ken Kingdon -

In 2013, we crowned our first ever "Champion of Owl Surveyors". After surveying 40 routes over the last 22 years, Ken Kingdon definitely earned his title.

Ken's daytime activities include his work as a Project Coordinator for Resource Conservation with Parks Canada at Riding Mountain National Park in southwestern Manitoba. After working in Wood Buffalo and Kluane National Parks, he moved to Manitoba in 1988 where he has remained ever since. His primary role with Parks Canada is coordinating projects for

various funded programs such as the Keeping the Clear in Clear Lake and the Bovine Tuberculosis Wildlife Disease Program.

In his free time, Ken enjoys participating in a variety of citizen science programs, as it "provides an excuse to get outside and be active at different times of the year". He has participated in not only the Manitoba Nocturnal Owl Survey, but also the Christmas Bird Count for Bird Studies Canada, Project Feeder Watch, Canadian Lakes Loon Survey, and different frog and vegetation surveys. He believes that citizen science is important as it helps us to gain data on different aspects of the natural world that might otherwise be overlooked or not possible.

I recently had a phone conversation with Ken about how he came to earn the title "Champion of Owl Surveyors".

CB: Congratulations Ken on becoming Manitoba's first ever "Champion of Owl Surveyors"! So what is it about the Nocturnal Owl Survey that keeps you coming back year after year?

KK: It's not often that you can do surveys at night, so there's an added element. It is also quite peaceful and allows you to reflect on what you find during the survey.

CB: What is your favorite owl and why? Is it the sound of their call, their appearance, or something else that attracts you?

KK: My favourite owl is probably the great gray. In Manitoba, especially where I'm located, we see them regularly. They have interesting behaviour. I also think the Northern Hawk owl is quite impressive. I used to go out with local owl expert, Kurt Mazur, banding both Great Grays and Hawk owls.

CB: What's your favorite owl call?

KK: I'd say the most interesting is the barred owl, oh, and the saw-whet.

CB: You've completed 40 routes over 22 years, have there been any years or memories that stand out?

KK: Spring 2009 had high success with great grays and northern hawk owls. In Riding Mountain, we found 4-5 great gray nests and 3 northern hawk owl nests. Before this, there were no known nesting pairs in the area.

CB: What do you think the benefits of citizen science are to the scientific world?

KK: These programs help us to understand what's going on. It provides an opportunity for local people (non-scientists) to be part of monitoring and what's happening in terms of wildlife. It gets people out in a structured way and helps us to understand the complexities of nature. It also allows us to gain data from a broad area that wouldn't be acquired otherwise. This data is available for feedback and allows people to make calls for action.

CB: What's your advice for novice birders or first time owlers?

KK: Drink lots of coffee of course! Dress very warmly- standing around on an April night gets colder than you think. And don't go expecting to hear owls, go instead to enjoy the evening and if you hear an owl, well then, that's just a bonus!

CB: Thank you Ken for the advice and your time! Happy Owling!





Manitoba Burrowing Owl
RECOVERY PROGRAM

- 2013 Update -

The success of the Manitoba Burrowing Owl Recovery Program continued again in 2013. A total of 14 young fledged from four nests this season. Zero wild Burrowing Owls were detected during 2013 surveys or reported by landowners. Researchers suspect that the extreme flooding and wet conditions that occurred in 2010 and 2011 have resulted in low detections of owls last year and again in 2013.

A total of 6 young from captive-released pairs were removed from broods for overwintering at the Assiniboine Park Zoo. These young, along with additional young owls from Saskatchewan Burrowing Owl Interpretive Centre will be paired and released in spring/summer 2014.

Proposed Activities for 2014 include the reintroduction of seven pairs in the spring/summer in Broomhill, Medora, and Deloraine, Manitoba. Ongoing efforts will concentrate on reintroductions, conducting target species surveys to locate wild and returning captive released owls, and encouraging local landowners with suitable burrowing owl habitat to commit to stewardship activities on their land which promote sustainable land practices and, ultimately, aid in the recovery of the burrowing owl and other grassland species in southwest Manitoba.

If you are interested in obtaining additional information about the Manitoba Burrowing Owl Recovery Program or if you would like to get on board with the Burrowing Owl survey in southwest Manitoba please contact Alex Froese at alexandra.froese@gmail.com.



New and Exciting Research on Owls

CHARACTERISTICS OF BARRED OWL (*STRIX VARIA*) NEST SITES IN MANITOBA, CANADA.

By Todd Whiklo and James Duncan (submitted to peer-reviewed journal)

ABSTRACT

During 2009 and 2010 nine Barred Owl (*Strix varia*) nest sites were located in Manitoba, Canada and nest tree, nest structure and nest site habitat data were collected. Nests were located in a variety of tree species including Balsam Poplar (*Populus balsamifera*), Paper Birch (*Betula papyrifera*), Trembling Aspen (*P. tremuloides*) and Burr Oak (*Quercus macrocarpa*). All nests were in tree cavities, with the majority in dead trees (67 percent) and having lateral openings (67 percent). Habitat surrounding nest trees and estimated canopy cover were highly variable. Diameter at breast height of nest trees along with cavity width and cavity depth were consistent and determined to be the most reliable indicator of nest suitability for breeding Barred Owls. We conclude that the distribution of nesting barred owls is more influenced by availability of suitably nest sites than by nest tree species or nest site habitat.

USING DETECTION DOGS TO CONDUCT SIMULTANEOUS SURVEYS OF NORTHERN SPOTTED (*STRIX OCCIDENTALIS CAURINA*) AND BARRED OWLS (*STRIX VARIA*)

By Samuel K. Wasser, Lisa S. Hayward, Jennifer Hartman, Rebecca K. Booth, Kristin Broms, Jodi Berg, Elizabeth Seely, Lyle Lewis, and Heath Smith

PLoS ONE 7(8): e42892. doi:10.1371/journal.pone.0042892

ABSTRACT

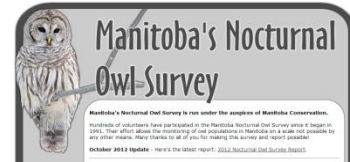
State and federal actions to conserve northern spotted owl (*Strix occidentalis caurina*) habitat are largely initiated by establishing habitat occupancy. Northern spotted owl occupancy is typically assessed by eliciting their response to simulated conspecific vocalizations. However, proximity of barred owls (*Strix varia*)—a significant threat to northern spotted owls—can suppress northern spotted owl responsiveness to vocalization surveys and hence their probability of detection. We developed a survey method to simultaneously detect both species that does not require vocalization. Detection dogs (*Canis familiaris*) located owl pellets accumulated under roost sites, within search areas selected using habitat association maps. We compared success of detection dog surveys to vocalization surveys slightly modified from the U.S. Fish and Wildlife Service's Draft 2010 Survey Protocol. Seventeen 2 km × 2 km polygons were each surveyed multiple times in an area where northern spotted owls were known to nest prior to 1997 and barred owl density was thought to be low. Mitochondrial DNA was used to confirm species from pellets detected by dogs. Spotted owl and barred owl detection probabilities were significantly higher for dog than vocalization surveys. For spotted owls, this difference increased with number of site visits. Cumulative detection probabilities of northern spotted owls were 29% after session 1, 62% after session 2, and 87% after session 3 for dog surveys, compared to 25% after session 1, increasing to 59% by session 6 for vocalization surveys. Mean detection probability for barred owls was 20.1% for dog surveys and 7.3% for vocal surveys. Results suggest that detection dog surveys can complement vocalization surveys by providing a reliable method for establishing occupancy of both northern spotted and barred owl without requiring owl vocalization. This helps meet objectives of Recovery Actions 24 and 25 of the Revised Recovery Plan for the Northern Spotted Owl.

A Special Thank You



Dr. James Duncan for encouraging me to try out my very first Manitoba Nocturnal Owl Survey and to author the Annual Report for 2013 as well as providing edits for the report.

Doug Collicutt for his continued support hosting information on the Manitoba Nocturnal Owl Survey at:
http://www.naturenorth.com/summer/creature/owl/owl_new/owl2005.html



Alexandra Froese and Ken de Smet for all their work on the Manitoba Burrowing Owl Recovery Program.

Owl photos provided by Donna Martin, Christian Artuso, Alex Froese, Jim Duncan, and Mark Musselman.

And of course, a huge thank you to all the volunteer surveyors and assistants in 2013!

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Cathy McCullough
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Cheryl Harris
Christian Artuso
C-Jae Breiter

Colin Murray
Colleen Robert
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Dave Roberts
Dave Uhryniuk
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Suzanne Barsalou
Tim Byers
Todd Scott
Todd Whiklo
Tyler Haslen
Zoe Dyck

For more information, or if you participated in the 2013 owl survey and your name is not included above, please contact James Duncan at:

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