

Alberta Nocturnal



Owl Survey

Instruction Booklet

January 2019



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Executive Summary

Information on distribution, abundance, and population trends of all North American bird species is important for developing sound conservation strategies, so that species in need of particular conservation action can be identified, and so that the effectiveness of current management programs can be evaluated. Most species of nocturnal owls are poorly monitored by existing multi-species surveys, such as the Breeding Bird Survey and Migration Monitoring. Several regions of Canada and the United States have established volunteer-based nocturnal roadside surveys for breeding owls. These appear to be an effective means of monitoring many species of owls, but there is considerable variation in the methods used.

In September 1999, representatives from the main surveys in Canada met in Winnipeg, Manitoba to try to develop a set of standards for owl monitoring that would allow data to be integrated across surveys, while recognizing geographic variation in target species and survey objectives. The outcome of that meeting was agreement on a set of standard components that should be incorporated into roadside surveys for breeding owls and subsequently be developed into a protocol that will be incorporated into the North American Raptor Monitoring Strategy (<https://raptorresearchcenter.boisestate.edu/the-north-american-raptor-monitoring-strategy/>). This also developed into a National Nocturnal Owl Survey coordinated by Bird Studies Canada (with provincial coordinators). We hope this protocol will be adopted by all organizations developing nocturnal roadside surveys for owls. This protocol is designed for broad scale monitoring of relative abundance, distribution, habitat use, and changes in these parameters over time.

Alberta's volunteer Nocturnal Owl Survey was initiated in 1997 and became a full time program in 2002. Presently over 200 people participate across Alberta!! Following is the standard protocol that will be used for Alberta. We hope you enjoy participating in this exciting project for many years to come.



<http://www.strixecological.ca/docs/Guidelines%20Nocturnal%20Owl%20NA.pdf>

Acknowledgements

We would like to thank all of the individuals who have been supporting owl monitoring initiatives in Alberta, including: Michael Bradstreet (Bird Studies Canada), Steve Brechtel and Gordon Court (Alberta Environment and Parks), Loney Dickson and Geoff Holroyd (Canadian Wildlife Service). Jim and Barb Beck provided the owl calling CD and Bryn Spence provided copying services. This project is coordinated by STRIX Ecological Consulting and Beaverhill Bird Observatory, with collaboration from Alberta Environment and Parks, and Bird Studies Canada. Funding support from the following agencies over some of the last 18 years is greatly appreciated:

Alberta Conservation Association
Alberta Ecotrust
Alberta Sport Recreation, Parks, and Wildlife Foundation
Boreal Forest Research Centre (Peace River)
Federation of Alberta Naturalists
Manning Forestry Research Fund
Mountain Equipment Coop
Shell Environment Fund
TD Friends of the Environment Foundation

We would particularly like to thank all of the volunteers who have helped by participating in the existing surveys, and all the staff that have worked on the data entry!

For more information about this protocol, or to receive a copy of the North American guidelines, contact:

Lisa Takats Priestley, STRIX Ecological Consulting
Box 1013 Tofield AB
Phone: (780) 918-4804
E-mail: lisa@STRIXeco.ca



Barred Owl
(STRIX Ecological Consulting)

Other Volunteer Opportunities

Federation of Alberta Naturalists

3rd floor, 11759 - Groat Road, Edmonton, Alberta T5M 3K6

Website - <http://naturealberta.ca/>

E-mail: info@naturealberta.ca

Phone: (780) 427-8124

In 1970, six natural history clubs joined together to form Nature Alberta (then known as the Federation of Alberta Naturalists). Since then, our membership has grown to include 41 clubs representing over 5000 individuals. Nature Alberta's greatest strength is our province-wide focus on natural history issues. We are the voice of wild Alberta, keeping you up-to-date on provincial issues. Our quarterly publication, the Nature Alberta magazine, contains wildlife articles of interest to all. We also market many attractive and informative books.

Beaverhill Bird Observatory

Box 1418, Edmonton, AB T5J 2N5

<http://www.beaverhillbirds.com>

Since 1984, the Beaverhill Bird Observatory (BBO) has been interested and active in the Beaverhills area monitoring bird migration and breeding populations. We band between 2000 to 4000 birds a year. We use mist nets to catch birds and then we place small aluminium bands on their legs. We also conduct bird counts to inventory the birds in the area on a daily basis. The objective is to monitor the birds' populations and deliver public engagement programs. You can also participate in our volunteer programs: bird banding, bluebird/tree swallow nest box monitoring, and raptor nest card programs.

Lesser Slave Lake Bird Observatory

P.O. Box 1076, Slave Lake, Alberta, Canada T0G 2A0

Phone: (780) 849-7117

<http://www.lslbo.org/>

The Lesser Slave Lake Bird Observatory (LSLBO) was established in 1994 and is dedicated to landbird research, education, and conservation. We are Canada's northernmost migration monitoring station. The LSLBO relies on volunteer assistance for the research programs and many other operational services. You do not have to be an expert birder to become a volunteer. If you have a passion for birds, wilderness, and wish to see some of the most sought after bird species in North America, we'd like to hear from you.

Inglewood Bird Sanctuary

3426 Lane Crescent SW, Calgary, Alberta T3E 5X2

Doug Collister: (403)240-1635 or (403) 246-2597 E-mail: collis@telusplanet.net

<http://www.bsc-eoc.org/national/ibs.html>

Inglewood Bird Sanctuary is a 34-hectare (80 acre) site located in a federal migratory bird sanctuary along the Bow River in Calgary. The site is dominated by a mature, riparian forest. The migration monitoring station has been operated by the Calgary Bird Banding Society since 1992. For more information about volunteer opportunities, please contact us.

Ellis Bird Farm

Box 5090, Lacombe, AB T4L 1W7

Phone/Fax: 403-346-2211 (OFFICE) 403-885-4477 (SITE, SUMMER ONLY)

<http://www.ellisbirdfarm.ca>

Located in the heart of central Alberta, Ellis Bird Farm is both a working farm as well as a non-profit organization dedicated to the conservation of Mountain Bluebirds, Tree Swallows and other native cavity-nesting birds.



Photo: STRIX Ecological Consulting

Introduction

In the past few decades there has been increasing concern over the status of both diurnal and nocturnal raptors. Their position high on the food chain makes them vulnerable to many environmental disturbances. As such, they may be valuable indicators of environmental health and many species of raptors have been chosen as indicator species.

Relatively little is known about the abundance and population trends of most species of nocturnal owls in Alberta. Most owls are not adequately monitored by the existing continent-wide surveys in North America. The Breeding Bird Survey takes place outside of the breeding season for most owls, and at a time of day (early to mid-morning) when most owls are relatively silent. Christmas Bird Counts are also conducted at a time of year when most owls are relatively quiet. Migration Monitoring may have the potential to monitor populations of some of the more common migratory species, such as Northern Saw-whet Owls, but many species of owls do not migrate, or only migrate short distances.



Call surveys are one of the most widely used techniques to locate and survey owls. Owls vocalize to communicate with their mates and delineate territory. Imitating or broadcasting tape recordings of owl vocalizations can invoke vocal responses from many species of owls. This survey technique has been used successfully to document the range and status of several owl species in North America, and can also be used to determine habitat associations.

In Canada, volunteer owl surveys have been established in British Columbia/Yukon, Alberta, Northwest Territories, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island, and Cape Breton, and Quebec. All these surveys will have some standardized aspects of the protocol to allow for data from different regions to be integrated into a national study on owl population trend and relative abundance coordinated by Bird Studies Canada.

This survey protocol can also be used by other organizations, consulting companies, or agencies with more specific objectives, such as assessing relatively large regions for owl populations. By surveying using the same protocol, the data will be comparable within Alberta, and across Canada. This protocol is adapted from a standard protocol that has suggested for North America (Takats *et al.* 2001), to be applicable to Alberta. All the standard procedures are being used.

Survey Objectives

This Alberta protocol is recommended for achieving the following objectives:

- 1) Estimating trends in populations of nocturnal owls at scales ranging from regional (e.g. provincial ecoregions) to provincial. This helps with provincial status designations.
- 2) Determining distribution of owls by habitat type across Alberta.
- 3) Estimating relative abundance of owls across Alberta.
- 4) Determining habitat associations of owls.
- 5) Contributing to the Canada-wide Nocturnal Owl Survey Program (Bird Studies Canada).

Methods

Volunteers are needed to help run owl surveys during March, April, and early May. Only two nights (approximately two hours each night) are required for these surveys. If you can only conduct one survey or find no owls **please submit your results** anyways, as the data still contributes to the program.



Routes

Volunteers have roadside routes assigned to them, but can decide what area of the province they would like to work in. Roads should have limited traffic on them, should be wide enough that you can pull over to the side, and should be accessible in March and April. This will need to be checked by the volunteers during a day before the first survey is to be run. If the road is not suitable, please contact us and we will assign you another one. Each route has 10 equally spaced calling stations along the road, with 1.6 km separations (total length is 14.4 km). If you are keen, you are welcome to run a second or third route (each route is separated by at least 5 km).

The volunteer needs to provide their own vehicle (or mode of transportation) and a portable CD or MP3 player. A CD will be provided with the calls of owls.

Timing and Environmental Conditions

Volunteers should **start** surveys no sooner than 30 minutes after sunset, and should **conclude** by around midnight. Try to start your surveys earlier in the night, as peak calling seems to occur right at dark and slows down as you get later into the night. The survey routes should be repeated twice over, although one visit is okay. The first survey should occur between approximately March 20 and April 10. The second survey should occur between approximately April 11 and May 5. Try to separate your two visits by at least 10 days.

Environmental conditions such as wind speed, precipitation, and temperature can affect owls calling, and the ability of surveyors to detect owls. Surveys should only be conducted under favourable conditions: wind speeds less than 20 km per hour (Beaufort 3 or less see Appendix II) and no precipitation. Temperatures should be close to the average for the season and efforts should be made to avoid extremely cold temperatures (owls do not call as much and it is not safe to be out in extreme cold). You can check the weather forecast in your area by listening to the radio or television, or by checking the Internet. We recommend the Weather Network or Environment Canada or the CanWeather App for up-to-date weather. If conditions deteriorate over the course of an evening, surveyors must use their judgement whether the route should be completed, or run again on another evening. Generally, light snow starting in the middle of a survey would not prevent completion of the survey.

Survey

In Alberta, recorded calls will be used to help increase owl call rates. Two different CDs will be distributed, depending on where the route is located in the province (Parkland/Prairie and Forest). You can download the files onto an Ipod also to use with speakers. The playback unit (tape/CD/Ipod player) should be of sufficient quality that it will not distort the sound at loud volumes. We also suggest the volume be set so that the recording can be heard at 400m, but not at 600m (test this before you begin your surveys). Remember owls can hear a lot better than we can and we do not want to influence our next survey stations.

At each stop there will be an initial 2-minute silent listening period. Following this, there is a sequence of calls played, which differ depending on the habitat and area of province you are surveying in:

BOREAL/FOOTHILLS/MOUNTAINS

- broadcast of 20 seconds Boreal Owl
- one minute of silent listening
- 20 second broadcast Great Gray Owl
- one minute of silent listening
- a final 20 second broadcast Barred Owl
- a final 3 minutes of silent listening

PRAIRIE PARKLAND

- broadcast of 20 seconds Northern Saw-whet Owl
- one minute of silent listening
- 20 second broadcast Long-eared Owl
- one minute of silent listening
- a final 20 second broadcast Great Horned Owl
- a final 3 minutes of silent listening

The total time at each stop is 8 minutes. The CD or tape is set up to run each survey station, so all you need to do is press play. The sequence of owl calls is from the smallest to the largest owl. You are welcome to write down other animals heard besides the owls, as these will be compiled as well.

Recommended Equipment

Following is a list of equipment that volunteer surveyors need to conduct the nocturnal owl survey.

Equipment provided by the coordinator:

- Instruction Booklet This will detail why the survey is being conducted and the survey protocol.
- Training Tape/CD The CD includes the calls of all species of owls the surveyor is likely to encounter, and even others that may not be expected. It also includes calls of other species of animals the surveyor is likely to hear (frogs and toads, snipe, ruffed grouse). This can help the surveyor differentiate between similar sounding species, but can also be used to collect information on other species of interest. How many different species of animals can you hear in a night? The call sequence that will be played for the survey is at the beginning of the CD or on side 1 of the tape.
- Data Forms Data sheets for sending in your data (included at the back of this manual). We will send new ones out each year, just before the survey season begins. Ensure you bring a copy of the Appendix on four letter codes, Beaufort Scale, and Noise Levels to be able to fill in the data sheet during the survey.
- Route Map The map will be provided by coordinator. A copy should be included with the data forms when submitted for the first time a survey is ever run. If you require another copy of a map, please let us know.
- Volunteer Form Although owl surveys are not an extremely dangerous undertaking, there is always the possibility of an injury, and we ask volunteers to sign the enclosed form waiver and return it with your results.

Equipment provided by the surveyor:

Warm clothes	Even if it feels like it is a warm night, <u>warm layered clothes</u> are a necessity. You can always take layers off. Because you are standing out in the cold air without moving, you can become cold. We recommend clothes made of wool, fleece, and/or polyester. Make sure you bring mittens, a hat, a warm coat and boots. You may also want to bring a piece of soft foam or an old blanket to stand on, so the cold doesn't come through the soles of your boots. If you need to move around to keep warm, we suggest walking slowly a short distance away from your vehicle and then back again while the call is playing, and then stand still to listen during silent times.
CD/MP3 Player	It should have reasonable sound and allow for good volume, but should preferably not be too heavy. It can either run on batteries, or on a cord that plugs into the car cigarette lighter (cord should be long enough to reach outside of the vehicle). Ensure you have extra batteries. You can place the player on top of the hood of your vehicle during each survey station. A towel can be used to place underneath the ghetto to avoid scratching your vehicle. <u>Do not</u> stand right next to the CD/MP3 player while the calls are being played. Owls can sometimes become quite territorial and may swoop down close over the player.
Flashlight	A safety item, in case you have car trouble or you drop something while outside of the vehicle. Could also be used to observe an owl that has flown in, in response to playback, though we <u>do not recommend</u> repeatedly scanning for owls. We recommend using a headlamp to free up your hands.
Thermometer	A small thermometer to record the temperature during your survey. Most vehicles have a thermometer display, please record the temperature of the moving vehicle, as it is usually warmer when parked.
Compass	To determine directions to calling owls, especially if the stars are obscured by clouds, or the road is curving, and hence making it difficult to determine orientation. You can borrow one from us for the surveys, but please return it with your data sheets (see Protocol section #10). If you are comfortable orienting yourself on a map you can use north, east south, west, northeast, etc.
Watch/Clock	A watch or clock to record the start time at each station.
Pen/Pencil	Depending on how cold the temperature is, a pencil may be better to use than a pen. If using a pen, ensure it is waterproof, in case you drop your data sheets in snow or water.
A Reliable Vehicle	Breakdowns are undesirable on remote roads in late winter!
Safety supplies	We recommend wearing a reflective vest so drivers will see you standing outside the vehicle. You can bring the survey booklet and permit with you to show anyone that stops what the project is and who is supporting it. Important safety supplies to carry in your vehicle in the winter: a candle, an empty can and matches (for heat and light), a flashlight, a wool blanket or warm sleeping bag, a first aid kit, a thermos of water, and some snacks (ie. cookies or granola bars). A tire jack, extra tire, a tire iron, road flares and tools are important if you get a flat tire. <u>Make sure</u> you check in with someone before you head out, and again when you return. It is best to do your survey with someone else, and it also makes the experience more enjoyable.

Protocol

1. Go and visit the route during the daytime, to ensure it is accessible, does not have a lot of traffic, and has enough room to pull over to the side. We will forward copies of a map of your route for you. Record the exact location where your first point is so you can repeat the route a second time, and from year to year. Remember you only need to send us a copy the first time you do the survey. In following years, this does not have to be done unless the route changes.
2. Read the protocol and review the data sheets, so that you know what information needs to be collected. Listen to the CD/MP3 to familiarize yourself with all the owl species and other wildlife you could potentially hear.
3. When you are ready to start your survey, ensure you let someone know where you are going and when you are returning. We suggest you conduct your survey with another person for safety reasons and it makes the survey more enjoyable when you share the experience (try not to have more than 4 people on the survey, as this may interfere with your ability to hear owls).
4. At the start of your survey, put on your reflective vest, fill out the information at the top of the datasheet (see sample).
5. Each 1.6 kilometers stop the engine, exit, and set up the CD/MP3 player on the hood of your vehicle. Press play and listen silently for two minutes. During this time you can record the information needed at the station (start time, temperature, and wind speed). You can move a little ways from your vehicle (about 25 to 50 meters). The vehicle can make noises that impede your ability to hear owls, or that may sound like owls. Also owls will sometimes dive down towards the CD player, which may startle volunteers.
6. The first 20 second call (Boreal or Northern Saw-whet Owl) will play automatically. Do not play the call so loud as to have distortion ($\frac{1}{2}$ to $\frac{3}{4}$ volume is recommended). Then a silent listening period will follow for 1 minute.
7. The second call will play (Great Gray or Long-eared Owl). Silent listening will follow for 1 minute.
8. The third call will play (Barred or Great Horned Owl). Final three minutes silence. Then the CD/tape will announce to head to your next station (you may want to turn down the volume after your third call plays so the voice telling you to move to your next station doesn't startle you).
9. Record your information on the data sheets during the survey, making sure you record during what interval each owl starts calling. You only need to record each individual owl one time (if it calls throughout the survey period, you can make a note in the comments section).
10. Judging distance and direction: the rule of thumb is that 800 meters is the furthest distance that a person can hear a small owl and over 1 km for a large owl. Your best estimate is all that is needed - don't worry, it doesn't have to be precise, it's only to give a rough idea of where the owl is. If you don't have a compass please tell us the direction north, northeast, south, southwest, west, east, southeast, or northwest.
11. When filling out data sheets, **record only the initial time the owl was heard**. If the owl continues to call during the survey, you can make note of this in the comments section for that calling station.
12. Sometimes an owl can be heard at more than 1 point. If you think that an owl you hear is from a previous point please make a note of it. This ensures that an owl is not counted twice.

13. Return to your vehicle and move to the next station (1.6 km). Repeat the above at all 10 stations. All owls heard during the surveys can be recorded on the data sheets provided, along with any other wildlife seen or heard. Please fill out as much information on the data sheets as you can. The snow depth can be estimated. Please provide information about how smoothly the survey went, and improvements you think may be needed in the protocol.

****IMPORTANT:** Broadcast surveys are an excellent way to survey for owls if conducted properly. Playing calls disturb owls from their normal activity patterns, distracting them from hunting for food, caring for young, and/or brooding eggs. It can also expose smaller owls to larger predators. Please make sure you only use the calls for these surveys. As a volunteer you are covered under our provincial permit, however, if you conduct surveys outside of the normal survey you are not covered.

***** IMPORTANT:** Please keep your owl records confidential. By posting the detailed locations of rare owls (like the Barred and Boreal Owl), some people will go and call them in on multiple occasions, which causes disturbance. You are working hard to collect this information, and do not want someone else to cause the owls to disappear (leave the area or even be killed by larger owls). If you would like to share with others, invite them to come along on your survey, or have them contact us to participate in the program.

Finally, if you know of someone else in Canada who may be interested in participating in this program please contact us or the regional coordinators (see below or Appendix 1).

Any further questions about this protocol can be directed to:

Lisa Takats Priestley, STRIX Ecological Consulting

Phone: (780) 918-4804

Email: lisa@STRIXeco.ca

Address: Box 1013, Tofield, AB T0B 4J0

APPENDIX I – Owl survey coordinators

Alberta

Lisa Takats Priestley, STRIX Ecological Consulting, Box 1013, Tofield, AB T0B 4J0.
Phone: (780) 918-4804, Email: lisa@STRIXeco.ca

Northwest Territories

Tracy Hillis, 3510 McDonald Drive, Yellowknife, NWT X1A 2H1 E-mail: tuktuamuit@hotmail.com

Manitoba

Christian Artuso, Bird Studies Canada - Manitoba, Box 24, 200 Saulteaux Crescent, Winnipeg, MB, R3J 3W3, Ph: (204) 945-6816 or Toll free 1-800-214-6497, E-mail: cartuso@birdscanada.org

Ontario

Kathy Jones, Owl Survey Coordinator, Bird Studies Canada, P.O. Box 160, Port Rowan, ON, N0E 1M0
Phone toll-free: (888) 448-2473 ext. 124 E-mail: volunteer@birdscanada.org

Quebec

Andrew Coughlan, Gestionnaire de programmes, Bird Studies Canada, Region of Québec
801-1550, avenue d'Estimauville, Quebec, QC G1J 0C3
Telephone: (866) 518-0212 or (418) 649-6062 E-mail: acoughlan@oiseauxcanada.org

Saskatchewan

LeeAnn Latremouille, Bird Studies Canada, 115 Perimeter Road, Saskatoon, SK S7N 0X4
Phone: (306) 249-2894 or Toll free 1-844-369-2894
E-mail: skatlas@birdscanada.org

British Columbia/Yukon

Graham Sorenson, Bird Studies Canada, 5421 Robertson Road, Delta BC V4K 3N2. Ph: 1-877-349-2473 E-mail: bcbvolunteer@birdscanada.org

Atlantic Provinces

Bird Studies Canada, , P.O. Box 6227, Sackville, NB, E4L 1G6 Ph: (506) 364-5045
Email: akouwenberg@birds.canada.org

Montana, USA

Denver Holt, Owl Research Institute, Inc., P.O. Box 8335, Missoula, MT 59807.
E-mail: owlmontana@charlo.net

APPENDIX II

Scientific names and codes of Alberta owls.

Common Name	Scientific Name	Code
Barn Owl *	<i>Tyto alba</i>	BNOW
Long-eared Owl	<i>Asio otus</i>	LEOW
Short-eared Owl	<i>Asio flammeus</i>	SEOW
Barred Owl	<i>Strix varia</i>	BARR
Great Gray Owl	<i>Strix nebulosa</i>	GGOW
Boreal Owl	<i>Aegolius funereus</i>	BOOW
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	NSWO
Eastern Screech-Owl	<i>Megascops asio</i>	EASO
Western Screech-Owl	<i>Megascops kennicottii</i>	WESO
Great Horned Owl	<i>Bubo virginianus</i>	GHOW
Snowy Owl	<i>Nyctea scandiaca</i>	SNOW
Northern Hawk Owl	<i>Surnia ulula</i>	NHOW
Burrowing Owl	<i>Athene cunicularia</i>	BUOW
Northern Pygmy Owl	<i>Glaucidium gnoma</i>	NOPO

* accidental in Alberta

Beaufort Scale Translations to Wind Speeds

Beaufort Number	Wind Speed in km/hr (mph)	Indicators of Wind Speed
0	< 2 (< 1)	Smoke rises vertically
1	2 to 5 (1 to 3)	Wind direction shown by smoke drift
2	6 to 12 (4 to 7)	Wind felt on face, leaves rustle
3	13 to 19 (8 to 12)	Leaves, small twigs in constant motion
4	20 to 29 (13 to 18)	Raises dust/loose paper, small branches move
5	30 to 38 (19 to 24)	Small trees in leaf sway

APPENDIX IV: Noise Level Descriptions

Noise Level	Description
1	Quiet
2	Some noise, but not distracting (dogs or coyotes barking/howling)
3	Significant noise that may have reduced owl detectability (ie. creek)
4	Constant noise (ie. heavy traffic, compressor station, roaring creek)

Alberta Nocturnal Owl Survey Route Registration Form (only in first year or if habitat changes):

ROUTE NUMBER: _____ YEARS SURVEYED: _____	OFFICE USE ONLY
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PERSONAL INFORMATION

NAME: _____
FIRST/LAST

ADDRESS: _____
STREET/BOX/APT.#

CITY/TOWN POSTAL CODE

PHONE: _____ **E-MAIL:** _____

MAP AND TRANSECT INFORMATION

ROUTE NUMBER: _____ **ROUTE NAME:** _____

HABITAT DESCRIPTION OF ROUTE

LAND USE	Stations(s)	ALL
NATURAL		
AGRICULTURE		
FOREST		
MINING/OIL&GAS		
URBAN/INDUST.		
RECREATIONAL		
OTHER _____		

VEGETATION TYPE	Station (s)	ALL
PASTURE		
CROP		
SHRUB/SCRUB		
PARKLAND		
FOREST		
WETLAND		
OTHER _____		

NEAREST TOWN OR CITY: _____

RETURN COMPLETED FORM TO:

Mail: Lisa Takats Priestley, Box 1013, Tofield, AB T0B 4J0

Scan and E-mail: lisa@STRIXeco.ca

**RELEASE OF LIABILITY, WAIVER OF CLAIMS, ASSUMPTION OF RISKS
AND INDEMNITY AGREEMENT
for ALBERTA NOCTURNAL OWL SURVEY**



All volunteers must read, understand and sign this Agreement before participating in the Beaverhill Bird Observatory Alberta Nocturnal Owl Survey Program:

By signing this document you may waive certain rights, including the right to sue. Please read carefully!

Volunteer's Name: _____

Address: _____ Tel.: _____

E-mail: _____

RISKS

Activities connected with the program include: roadside surveys (driving, short distance walking, slippery conditions possible), work at night (2-4 hours). I acknowledge I have been advised to read the Owl Survey Manual for information on winter road safety (including surveying on roads with limited traffic, wide enough roads to pull over, standing off the road, carrying safety equipment in the vehicle, checking in with someone upon departure and arrival, wearing warm winter clothing).

INDEPENDENT

I am not an employee, servant, or agent of Beaverhill Bird Observatory.

RELEASE, WAIVER AND INDEMNITY

On behalf of myself and my heirs, executors, administrators and legal guardians (collectively and jointly and severally "CLAIMANTS") I hereby covenant and agree as follows:

1. To waive, release, and indemnify Beaverhill Bird Observatory and its directors, officers, employees, agents, independent contractors and other volunteers (collectively and jointly and severally BBO) from any and all claims, demands, liability, actions, arising from or in any way related to the Program and my participation therein whether in regard to personal injury or death or property damage to myself or others whenever arising save to the extent that the same are or were caused by neglect or default of persons other than the Claimants.
2. This Agreement shall be governed and interpreted in accordance with the Laws of Alberta and the laws of Canada applicable therein and any court action by or on behalf of the Claimants shall be brought within Alberta.
3. In entering into this Agreement I am not relying on any oral or written presentations or statements of BBO with respect to the safety of the Program other than as herein set out.

MUST BE SIGNED AND WITNESSED

Dated at _____ on _____, 20__.

Volunteer's Name: _____ Signature: _____

Witness Name: _____ Signature: _____

Beaverhill Bird Observatory Name: _____ Signature: _____

Witness Name: _____ Signature: _____

Alberta Nocturnal Owl Survey Data Sheet – [Sample Sheet](#)

Route Number: 1040 Route Name: Sample Creek

Surveyor: Ima Owl Assistant(s): Gretta Grayowl

Date: 04 / 14 / 19 Do you wish to participate again next year? Yes No
day / month / year

Temperature: Start -5 End -9 °C °F Cloud Cover: Clear Partly Overcast Cloudy Fog

Precipitation: None Light Medium Heavy / Snow Rain

Snow Cover: None Patchy Continuous Max. Depth 5 Min. Depth 0 cm inch

Station: 1 Odometer 0 km / mile Start Time: 20:15 Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
NSWO	1	200m/75°	Y		<u>1</u> 2 3 4	<i>Continued calling throughout</i>
BARR	2	300m/150°		BARR	Traffic Count	<i>One call only</i>
NSWO	3	400m/200°		BARR	<i>1 car</i>	<i>Still hearing other NSWO</i>

Station: 2 Odometer 1.6 km / mile Start Time: 20:33 Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
NONE					1 <u>2</u> 3 4	<i>Heard coyotes howling</i>
					Traffic Count	
					<i>2 cars</i>	

Station: 3 Odometer 3.2 km / mile Start Time: 20:49 Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
GHOW	1	500 m/250°	Y		<u>1</u> 2 3 4	<i>Duetting with other each other.</i>
GHOW	2	500m/250°		BARR	Traffic Count	
					<i>1 truck</i>	<i>Geese honking</i>

Station: 4 Odometer 4.8 km / mile Start Time: 21:06 Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
GHOW	1	500 m/330°	Y		<u>1</u> 2 3 4	<i>same pair as last station</i>
GHOW	2	500m/330°	Y		Traffic Count	<i>Ruffed Grouse drum</i>
					0	



Photo: STRIX Ecological Consulting

Alberta Nocturnal Owl Survey Data Sheet – Visit #1 #2 (circle one)

Route Number: _____ Route Name: _____

Surveyor: _____ Assistant(s): _____

Date: _____ day / month / year Do you wish to participate again next year? Yes No

Temperature: Start _____ End _____ °C °F Cloud Cover: Clear Partly Overcast Cloudy Fog

Precipitation: None Light Medium Heavy / Snow Rain

Snow Cover: None Patchy Continuous Max. Depth _____ Min. Depth _____ cm inch

Station: 1 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 2 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 3 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 4 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 5 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 6 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 7 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 8 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 9 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 10 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Alberta Nocturnal Owl Survey Data Sheet – Visit #1 #2 (circle one)

Route Number: _____ Route Name: _____

Surveyor: _____ Assistant(s): _____

Date: _____ day / month / year Do you wish to participate again next year? Yes No

Temperature: Start _____ End _____ °C °F Cloud Cover: Clear Partly Overcast Cloudy Fog

Precipitation: None Light Medium Heavy / Snow Rain

Snow Cover: None Patchy Continuous Max. Depth _____ Min. Depth _____ cm inch

Station: 1 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 2 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 3 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 4 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 5 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 6 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 7 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 8 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 9 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	

Station: 10 Odometer _____ km / mile Start Time: _____ Wind: 0 1 2 3 >3

Species	Owl Number	Distance/ Direction	During First Two Minutes	After Which Broadcast	Noise Level	Comments
					1 2 3 4	
					Traffic Count	