

# BRITISH COLUMBIA NOCTURNAL OWL SURVEY

## INSTRUCTIONS FOR FLAMMULATED OWL SURVEYS

### 1. Routes and stops

PLEASE CONTACT THE COORDINATOR BEFORE CHOOSING A NEW ROUTE .

**All routes done last year should be run again this year if at all possible.** If you would like to start a new survey route, please contact the coordinator.

Routes should be located in or within earshot of ponderosa pine or Douglas-fir forests. The routes will be *at least* 7.2 km long, consisting of 10 to 30 stops situated 0.8 km apart. Stops can be slightly farther apart if (and only if) the 0.8 km distance puts one at an inconvenient or dangerous spot. It is important to keep the 0.8 km distance as constant as possible so that any bias towards stopping at "favourite" owling spots is reduced. The distance between the stops was a compromise between being sure of not counting the same owl twice and keeping the overall distance travelled to a minimum. The 0.8 km distance may seem awkward, but it makes the protocol comparable to present Breeding Bird Survey (BBS) methods and will allow the protocol to be used easily in the US. Although this is a "made-in-Canada" protocol, it is likely that it will be adopted throughout North America as the standard way to monitor owl populations.

### 2. Route descriptions

If observers have access to hand-held GPS units, the exact coordinates of each stop should be taken, and reported in UTM (NAD 83) units. If you do not have a GPS unit, please photocopy the appropriate part of a topographical map, preferably one of 1:50,000 scale, mark the route on the map and submit the map with your survey results. The *individual stops should also be clearly marked on the map*, and a detailed description of their location written on the back of the map or on a separate sheet. These descriptions should be of the stop's position, not necessarily the habitat around them; and are needed so that the stop can be located as precisely as possible in the future if a new observer takes over the route or the road changes slightly. The positions of these stops will be digitized so that the information can be used in GIS-based studies.

### 3. Time

Surveys should begin a half hour after sunset or soon after, and be carried out at least once between May 20 and June 15.

### 4. Environmental Conditions

Environmental conditions such as wind, rain, and temperature can directly affect owl call counts. Surveys should not be conducted when the wind speed is over a Beaufort Scale of 3 (see below) or during rain.

### 5. Counting Owls

At each stop simply get out of your vehicle, then begin timing a 2-minute stop. If you hear an owl, nighthawk, poorwill or grouse, note down which minute it was heard in (first, second or both) and estimate the distance and direction to the bird.

Beaufort No.	Wind Speed km/hr	Indicators of Wind Speed
0	Less than 2	Smoke rises vertically
1	2 to 5	Wind direction shown by smoke drift
2	6 to 12	Wind felt on face, leaves rustle
3	13 to 19	Leaves, small twigs in constant motion
4	20 to 29	Raises dust/loose paper, small branches move
5	30 to 38	Small trees in leaf sway

## Datasheet Instructions

**NOTE:** If your route is more than 10 stops long, simply continue on with a second data sheet.

**Route Name:** The official name for your route; e.g. Meldrum Creek, Wheeler Mtn., etc. If you are doing a new route, contact coordinator to register route before conducting the census to ensure no-one else is covering that area already.

**Day/Month/Year:** Date in number format, e.g. Day 12/Month 6/Year 2011

**Start Time:** Time in 24-hour format, e.g. 2245; similarly for End Time at bottom of sheet.

**Weather Conditions:** fill in as appropriate for conditions at START of survey; fill in similar section at bottom of sheet for conditions at END of survey.

**Wind:** circle appropriate Beaufort Number (see table above).

**Odometer:** kilometres (to nearest tenth) from start of survey

**Species Codes:** write in the species code for each owl detected (i.e. if two Flammulated Owls are heard you would write down "FLOW" on two separate lines—see example sheet). Note that the Barred Owl code is different than usual to avoid possible confusion with Boreal Owl while interpreting field sheet scrawl! If you see or hear owls at points other than regular stops, you may note them in the comments section but **do not** put them in the regular stop boxes.

	BNOW	Barn Owl
FLOW		Flammulated Owl
WESO		Western Screech-Owl
GHOW		Great Horned Owl
NHOW		Northern Hawk Owl
NPOW		Northern Pygmy-Owl
BUOW		Burrowing Owl
BARR		Barred Owl
SPOW		Spotted Owl
GGOW		Great Gray Owl
LEOW		Long-eared Owl
SEOW		Short-eared Owl
BOOW		Boreal Owl
NSWO		Northern Saw-whet Owl
CONI		Common Nighthawk
COPO		Common Poorwill
RUGR		Ruffed Grouse
BLGR		Blue Grouse
SPGR		Spruce Grouse

**Time Intervals:** put a check mark under the appropriate time intervals to indicate when the owl or grouse

was heard. If it was calling throughout the stop, place check marks in both boxes.

**Distance and Direction:** Estimate the distance in metres and the direction (N, NE, E, SE, S, SW, W, NW) of any owl heard, e.g. 300 m NW.

**Traffic count:** a simple tally of motor vehicles passing you during the stop.

**Moon:** Yes or no depending on whether it was visible from stop.

**Noise Level:**

- 1: Quiet
- 2: Some noise (e.g. dogs or coyotes barking in distance), but not distracting
- 3: Significant noise that may have reduced owl detectability (e.g. traffic)
- 4: Constant noise, e.g. heavy traffic, roaring creek.

**Comments/Mammals seen:** any short comments you think would help us interpret the survey results and a list of all mammals seen, even those between stops. Please identify mammals as best you can, e.g. "mouse" is acceptable, but "vole" or "deer mouse" or even "red-backed vole" is preferred.

---

*If you have any questions, phone 604-350-1988 or email [BCvolunteer@birdscanada.org](mailto:BCvolunteer@birdscanada.org).*

**Please send completed data sheets to:**

BC Projects Coordinator  
[BCvolunteer@birdscanada.org](mailto:BCvolunteer@birdscanada.org)

Bird Studies Canada  
5421 Robertson Road  
Delta, BC V4K 3N2



Bird Studies Canada  
BC Programs