



Newfoundland Breeding Bird Atlas

Instructions for Point Counts

Partner Organizations



This project was undertaken with the financial support of the Government of Canada.
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1. INTRODUCTION

Welcome! This guide provides directions on how to conduct point counts for the Breeding Bird Atlas. Remember to register as a participant before undertaking point counts. All participants should read the **Instructions for General Atlassing** for information on how to participate in this project.

Doing point counts is **optional for atlassers**. However, we encourage all atlassers who know most local birds by song to try doing at least a few. Even if you can't do them in the first year of the Atlas, you may find that with study of bird songs and more time in the field, you will be able to do point counts before the end of the five-year atlas period.

1.1 Point count basics

Point counts are a commonly used method for determining the relative abundance of birds. A point count consists of standing at a predetermined location, usually along the roadside, and **counting all birds seen or heard** during a set period of time. Point counts generally take place in the early morning hours when most birds are at peak activity. These counts are extremely valuable because they tell us a great deal about the birds that are detected as well as the birds that are not detected.

The most challenging (but ultimately rewarding) part of a point count is learning the songs and calls of local birds. The majority of birds, regardless of habitat, are most often heard rather than seen. **People who do point counts need to know the songs and calls of local birds.** If you find that you are unable to identify more than three species per point count, please do not submit your data and continue learning.

1.3 Safety

It is important that atlassing be enjoyable, but safety comes first. Please review the safety information provided in the Instructions for General Atlassing. When conducting roadside point counts, ensure that your vehicle is parked in a safe location. If possible, park your vehicle on an approach and walk to the point count location. Follow the instructions in this guide if a point count is in an unsafe location, such as along a busy road with narrow shoulders.

2. GETTING STARTED

The goal is to conduct **15 point counts per atlas square** over the five-year Atlas period.

2.1 Contact your Regional Coordinator

Please let your Regional Coordinator know if you plan to undertake point counts, even if you are only planning to do so in later years once you are more comfortable birding by ear.

2.2 Where to do point counts

There are two types of locations for Atlas point counts: roadside and off-road. **Square Summary Sheets** indicate how many of each to conduct in a square, for a total of 15 point counts.

a) Predefined roadside locations

Square maps show up to 30 predefined roadside points per square, from which you **choose the first 15 suitable points on the list** (or fewer depending on the number of off-road point counts for the square). For safety reasons, you may choose to do the count **within 50m of the designated location**. In some cases, stations may be on busy roads or in other locations unsuited to point counts; you should eliminate these from consideration and add locations with higher numbers to make up your total. For example, if your initial set of points is 1-15, but stations 5 and 13 are unsafe, add numbers 16 and 17 to make up your total of 15. Some locations may be suitable only in the early morning, especially on weekends, before traffic noise builds up. It is important to **follow the procedure** given here to ensure that count stations are randomly distributed, and not biased towards especially productive habitats or a particular portion of the square.

Once you have selected your stations, you can **cover them in any sequence that seems efficient**. It isn't necessary to do all the point counts on the same day or even in the same year.

b) Off-road locations

Although point counts along roads are very useful, they have been shown to be ineffective for detecting some species. The Square Summary Sheets show how many off-road points to put in each habitat type. The atlasser may choose the location of the points within each habitat type. Please **select these locations ahead of time** so you are not tempted to put in a station simply because there is an interesting bird in a particular spot. Make sure all points are at least 300m apart and do your best to ensure that they are placed 100m from an adjacent habitat type (this will not always be possible). Please record the UTM coordinates for each off-road point count (for more information about recording UTM coordinates, see

“Recording UTM Coordinates” in Appendix G of the Instructions for General Atlassing).

Off-road point counts are included in the total number of counts. If you do three off-road point counts in a square you should do 12 roadside counts to reach a total of 15.

2.3 When to do point counts

Season: Point counts should be done at the peak of the breeding season, from **7 June-7 July**. Because different species breed on different schedules, we encourage you to spread out point counts throughout this period in each square. However, if you don’t have the luxury of doing so, it is acceptable to do all of them during a single visit.

Time of Day: Point counts can be done anytime from a **half hour before sunrise to four and a half hours after sunrise**. Be sure to check local sunrise times before heading out. It is not necessary that counts be done only in the very early morning. In fact, some birds aren’t active until an hour or two after sunrise.

Weather: Counts should not be done if it is raining or misty, if there is thick fog, if it is unusually cold, or if winds are greater than 19 km/hr (i.e. >3 on the Beaufort scale, see Table 1). Use your judgment; if you think your hearing is impeded by the wind or that bird activity is significantly reduced by weather, try to return on a day of better weather.

2.4 How to do Atlas point counts

Atlas point counts consist of standing quietly at one location for a 5-minute listening period, divided into two segments: a 3-minute segment followed by a 2-minute segment. This split in the point count allows us to integrate data from the Breeding Bird Survey into the Atlas.

During the first 3 minutes (minutes 1-3) count all birds seen and heard. During the last 2 minutes (minutes 4-5) count all new birds detected, that is, any bird not detected during the first three minutes. The time periods should be adhered to exactly (to the second). We recommend using

a digital watch or cell phone to keep track of time; some smartphone apps can run multiple timers.

2.5 Collecting squirrel data

Red Squirrels are an invasive species in Newfoundland, and we are interested in using atlas data to investigate how squirrels have affected native bird populations. Atlassers should keep track of the number of red squirrels they see/hear during point counts, using the same protocol as for birds: during the first 3 minutes, count all squirrels seen or heard; during the last 2 minutes, count all new squirrels detected.

2.6 Practice makes perfect (or nearly so)

Practicing the protocol ahead of time will ensure that you collect the best data possible. If you have never done a point count, have limited experience, or have never split one into two segments before, try doing a few practice runs before heading out and consider attending an atlasser training workshop.

Regularly reviewing and practicing bird identification will help to develop and expand your skill set. Everyone gets a little rusty over the winter so refreshing your memory, especially for bird songs and calls, before the first point counts of the season will go a long way to ensuring that species are not missed. Visit the website for a list of helpful resources.

3. COLLECTING POINT COUNT DATA

Collecting point count data will be facilitated by using the Point Count Form or the NatureCounts mobile app. Familiarize yourself with the form before heading out to do point counts and be sure to bring enough forms.

3.1 Planning

If possible, scout out point count locations ahead of time. Doing so will allow you to find a safe place to park and will avoid any last minute changes to plans. If you have a GPS enabled device, load the coordinates of the roadside point count locations (available for download on the website) for easy navigation.

Table 1. The Beaufort Wind Scale. Shading indicates wind conditions in which point counts should not be conducted.

Force		Km/h	Characteristics
0	Calm	<2	Smoke rises vertically
1	Light Air	2 – 6	Wind direction shown by smoke drift
2	Light Breeze	7 – 12	Wind felt on face, leaves rustle
3	Gentle Breeze	13 – 19	Small branches move (make decision whether to point count or not)
4	Moderate Breeze	20 – 30	Small trees sway (do not conduct point counts)
5	Strong	31 – 40	Large branches move (do not conduct point count)

3.2 Before the point count

Wait about a minute after arrival at the location for the birds to settle down to your presence. During this time fill out the required information at the top of the form, but **do not record any birds** heard during this time (see Figures 1 and 2 for examples of completed forms).

At the top of the form fill in the designated number for each predetermined road-side point count. For off-road counts, fill in the UTM Easting and Northing coordinates precise to at least 100m.

3.3 During the point count

When ready to begin, start your timing device and note the start time. During the point count remain in place, but turn around during the count so as not to miss any birds which may be flying or calling behind you.

Minutes 1-3: Count all birds (and squirrels) seen or heard, even if they are very far away or are only flying by and record level of breeding evidence.

Minutes 4-5: Count any additional birds (and squirrels) not detected in the previous 3 minutes. For example, if you heard 2 American Robins singing in minutes 1-3 and another joins the chorus during minutes 4-5, record 1 in the second count column. Upgrade breeding codes as necessary.

If an individual is heard at more than one location, record it at the first location it was detected at and omit it from subsequent counts.

Remember, if you find that you are unable to identify more than three species per point count, please do not submit the count and continue learning.

3.4 After the point count

Do not add ANY species discovered after five minutes. While it may be tempting to add a new species detected seconds after the end of the count to the list, please do not succumb to this temptation. Point counts are certain to miss some species, and their absence is an indicator that those species may be relatively uncommon in the area. Any species detected before or after point counts can be recorded as incidental observations on an Atlas Checklist.

Fill out a Rare/Colonial Species Form for any rare species or colonies observed during the point count.

Review the Point Count Form to ensure all required fields are filled and there are no errors or omissions in your species list, counts, or breeding evidence codes.

4. SUBMITTING POINT COUNT DATA

We highly recommend that you review your data at the end of each atlassing visit and submit the data soon thereafter. This strategy helps to reduce errors and omissions since the details will still be fresh in your mind; it also allows everyone to track the Atlas progress more effectively. The annual deadline for data submission is **August 31st**. Your diligence with submission ensures ample time to have all data peer-reviewed by experts.

There are two options for submitting Atlas data:

a) Submit data online or using the mobile app

This is the **preferred method** of data submission. The website and app allow you to enter and submit your general atlassing, point count, and rare species data all in one place; use the mapping tool to tell us exactly where you have atlassed; receive warnings for unusual or invalid species-breeding code combinations or unusually high counts; and receive prompts for rare/colonial observations that require more information. Entering your data online also allows the Atlas Office to regularly update maps and square summary sheets throughout the breeding season to better track progress, avoid duplication of effort, and direct effort as needed.

All data submissions are linked to an Atlas Checklist. If you are submitting point count data only, create a travelling count corresponding to the route you took, noting the start time and duration of the entire session, regardless of whether or not you made observations between point count locations. If no observations were made between point counts, check off no under **complete checklist**. See Appendix E for how to submit data online; or

b) Submit completed forms to the Atlas Office

If necessary, completed data forms can be sent to the Atlas Office for data entry. Remember to **write neatly** and review all forms to ensure no errors or omissions. Don't forget to include your name, the square number, the date, and any other required information. Please retain a copy of submitted forms; doing so will make it easier if clarification is required and guards against forms getting lost in the mail.

5. THANK YOU AND GOOD LUCK!

Thank you for participating in the Atlas. Your contributions will have a lasting impact on bird conservation in Newfoundland!

If you have any questions, please contact your Regional Coordinator or the Atlas Office.

Figure 1. Example of a completed Point Count Form.

Point Count Form

Instructions: Point count duration is 5 minutes, split into a 3 minute segment followed by a 2 minute segment. During the first 3 minutes (Min 1-3) count all birds detected; during the last 2 minutes (Min 4-5) only count additional birds not detected in the previous 3 minutes. Record the highest level of breeding evidence (B.E.) observed. Don't forget to also count the number of red squirrels seen/heard.



Atlasser's name Jane Smith			Atlas square 21 TWP 810			Year 2020					
Point A	Month 7	Day 10	Coordinates** Easting (UTM - NAD83) _____ Northing (UTM - NAD83) _____			Point B	Month 7	Day 10	Coordinates** Easting (UTM - NAD83) 5181517815 Northing (UTM - NAD83) 513108131216		
Designated number* 112			Start time (24h) 015:215			Designated number* 1			Start time (24h) 07:09		
Point A Count Min 1-3 Min 4-5 B.E.			Point B Count Min 1-3 Min 4-5 B.E.			Point A Count Min 1-3 Min 4-5 B.E.			Point B Count Min 1-3 Min 4-5 B.E.		
Species			Species			Species			Species		
American Black Duck						American Goldfinch					
Wilson's Snipe						Fox Sparrow			3 5 S		
Spotted Sandpiper						Dark-eyed Junco			1 1 S		
Greater Yellowlegs						White-throated Sparrow			3 2 S		
Ring-billed Gull §						Savannah Sparrow			2 S		
Herring Gull §			2 X			Song Sparrow					
Great Black-backed Gull §						Lincoln's Sparrow					
Common Tern §						Swamp Sparrow					
Common Loon						Ovenbird					
Hairy Woodpecker						Northern Waterthrush			1 S		
Northern Flicker			1 5			Black-and-white Warbler					
Yellow-bellied Flycatcher						Tennessee Warbler					
Alder Flycatcher			1 S			Mourning Warbler			1 1 S		
Canada Jay						Common Yellowthroat					
Blue Jay						American Redstart			1 S		
American Crow			1 1 H			Magnolia Warbler					
Common Raven						Yellow Warbler			1 S		
Black-capped Chickadee						Blackpoll Warbler			2 S 2 S		
Boreal Chickadee						Palm Warbler					
Tree Swallow			1 H			Yellow-rumped Warbler					
Golden-crowned Kinglet						Blk-throated Grn Warbler			1 H 2 S		
Ruby-crowned Kinglet			1 S			Wilson's Warbler					
Red-breasted Nuthatch											
European Starling											
Swainson's Thrush			1 S								
Hermit Thrush											
American Robin			2 1 S 2 S								
Cedar Waxwing			2 H								
House Sparrow											
Evening Grosbeak †											
Pine Grosbeak			1 S								
Purple Finch											
White-winged Crossbill											
Pine Siskin											

Point A Count Min 1-3 Min 4-5 B.E.			Point B Count Min 1-3 Min 4-5 B.E.		
Additional Species			Additional Species		
American Red Squirrel			1 1 — —		
Ruffed grouse			1 S		

* For road-side points only

** For off-road points only

† Provincially Rare: extra documentation required for ALL breeding records

§ Species of Interest: extra documentation req. for CONFIRMED breeding records only

Figure 2. Example of a completed blank Point Count Form. This form allows the observer to write in species as they are detected. On this form, species are identified using standardized 4-letter species codes.

Point Count Form

Instructions: Point count duration is 5 minutes, split into a 3 minute segment followed by a 2 minute segment. During the first 3 minutes (Min 1-3) count all birds detected and during the last 2 minutes (Min 4-5) only count additional birds not detected in the previous 3 minutes. Record the highest level of breeding evidence observed. Don't forget to also count the number of red squirrels seen/heard.

Atlasser's name

Atlas square

Year

Jane Smith

21	TWP	80
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2 | 0 | 2 | 0



Point <div><div>A</div></div>	Month <div><div>7</div></div> / <div><div>06</div></div>	Coordinates** Easting (UTM - NAD83) <div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Designated number* <div><div>1</div><div>2</div></div>	Start time (24h) <div><div>05</div><div>:</div><div>25</div></div>	Northing (UTM - NAD83) <div><div></div><div></div><div></div><div></div><div></div><div></div></div>

Point B	Month 7	Day 06	Coordinates** Easting (UTM - NAD83) 5181571815
Designated number* 1	Start time (24h) 01309		Northing (UTM - NAD83) 5308326

[illegible]

* For road-side points only

** For off-road points only

[illegible]

Red squirrels