

Maine Bird Atlas 2018-2022

Volunteer Handbook for Winter Atlasing

January 2020, version 1.1



A Project of the Maine Department of Inland Fisheries and Wildlife



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BACKGROUND & OVERVIEW

Bird atlases have long been recognized world-wide as an effective method of capturing comprehensive information on the distribution of species over a large area. In fact, breeding bird atlases are so common place, an international recommendation exists for conducting atlases within a state or region every 20 years. In North America, most states and provinces have completed their second breeding bird atlas and some are already embarking on their third, yet few have completed a winter bird atlas. Maine conducted its first breeding bird atlas between 1979 and 1983, with its second underway, but has never completed a winter bird atlas.

Winter is a critical time of year for bird populations because it is the time when food and cover can be most limiting. High mortality rates, often associated with severe winter weather events, can also dramatically reduce populations. In addition, the condition and health of birds coming out of a winter season can affect their breeding performance many months later. Despite this, we know little about birds that winter in Maine. The Maine Bird Atlas winter survey is the result of a concern for the lack of baseline data on the distribution and abundance of the state's winter avifauna.

This handbook describes how volunteers can contribute records of winter birds to the Maine Atlas effort. Field work for the Maine Winter Bird Atlas will be completed from 2018-2022 and will document the distribution and relative abundance of birds in Maine within the 14 December to 15 March survey window. This winter survey window was determined through analysis of historical winter records entered into eBird. During this winter period, a majority of birds present in Maine are strictly wintering. A few species with early spring or late fall migration or early breeding periods may overlap with our winter study period. These will be dealt with on a case by case basis at the completion of the Atlas project.

Observers of all skill levels can make valuable contributions to the winter atlas. We want to involve as many people as possible, including younger generations, in the Maine Bird Atlas. The success of the Maine Bird Atlas will rely, in large part, on the efforts of many volunteer birders, both those who focus field efforts on a specific area and those that contribute incidental observations. We hope this project will provide an opportunity for bird enthusiasts to get out in the field together, have some fun, make new friends, encourage and train young and new birders, and learn more about the natural history of birds, all while contributing to bird research and conservation in Maine.

For questions, visit the Maine Bird Atlas webpage (www.maine.gov/birdatlas), or contact the Project Coordinator: Glen Mittelhauser, Maine Natural History Observatory, 317 Guzzle Road, Gouldsboro, ME 04607, E-mail: mainebirdatlas@gmail.com, Phone: 207-963-2012; or Project Director: Dr. Adrienne Leppold, Maine Department of Inland Fisheries and Wildlife, 650 State Street, Bangor, ME 04401, E-mail adrienne.j.leppold@maine.gov, Phone: 207-941-4482.



PURPOSE & OBJECTIVES

The purpose of the Maine Bird Atlas is to provide a comprehensive understanding of the distribution and relative abundance of Maine's bird populations, during both breeding and wintering seasons. The Atlas will be invaluable in guiding current and future species status assessments, priority species needs, and identifying and conserving important wildlife habitats. Specifically, the winter atlas will: 1) provide current information on the species that winter in Maine and their distribution; 2) provide geographic patterns of relative abundance for winter birds, particularly for species of greatest conservation concern; 3) identify priority winter bird habitats and regions based on species diversity and relative abundance estimates; and 4) provide a platform for education and communication to inspire nature appreciation through the enjoyment of Maine's birds.

ATLAS BLOCK SYSTEM

The Atlas Block (each Block is approximately 3.0 x 2.9 miles) is the basic survey unit of the Maine Bird Atlas. All observations of birds submitted to the atlas must be attributed to the appropriate Atlas Block. As is the standard for many other state atlases, Maine has been gridded into 706 7.5 minute U.S. Geological Survey quads (often called topo maps) and we have subdivided each quad into 6 Atlas Blocks for a total of 4,246 Blocks. For the winter Atlas, we extended the Blocks along the coast to include all areas within a 3-mile buffer of land since wintering birds can be found in these areas. Each Block has a unique name based on the name of the corresponding topo map plus a 2-letter code based on their position within the topo map (Figure 1).

While we would ideally like to survey the entire state for winter birds, given the remoteness of many of the Atlas Blocks, the distribution and number of observers, and the challenges of conducting winter surveys, this would be nearly impossible. We have purposely not identified a subset of Atlas Blocks for priority surveying, primarily because we did not want to send birders into specific remote areas during winter when slight mishaps can quickly become life threatening without adequate preparation. As a result, we do not have any coverage goals for the winter atlas except to adequately survey as many Atlas Blocks that can be safely surveyed as time and effort allows over the 5-year duration of the project. We encourage atlas volunteers to focus their winter survey efforts on any and all Atlas Blocks that can be safely accessed.

WAYS TO VOLUNTEER

Anyone with an interest in birds can contribute records to the atlas - well, having binoculars helps too. Whether you spend many hours surveying throughout the state or report a few species you observed during winter in your backyard, your contribution will help to build the Maine Winter Bird Atlas.

There are 2 main ways you can contribute winter bird sightings to the atlas:

- * **Focus your survey efforts on specific Atlas Blocks.** Volunteers are encouraged to take responsibility for surveying and completing one or more Atlas Blocks. We do not have a sign-up for adopting Atlas Blocks for winter surveys. Instead we encourage volunteers to go to the Maine Bird Atlas webpage (www.maine.gov/birdatlas) to peruse a map of Blocks in your region and see which Blocks have not yet been completed. You can also contact the Atlas Coordinator (mainebirdatlas@gmail.com) and ask which Blocks in your area still need surveying.
- * **Incidental Observations.** We encourage volunteers to take responsibility for surveying and completing one or more Atlas Blocks, however, incidental observations of birds anywhere in Maine are welcome and an important source of winter bird records for habitats or species that may otherwise receive less survey coverage. We welcome and encourage volunteers to submit all incidental observations from any Block, even if visited only briefly. However, it is very important that all observations be precisely plotted and identified at the Block level.



Pemadumcook Lake NW	Pemadumcook Lake NE
Pemadumcook Lake CW	Pemadumcook Lake CE
Pemadumcook Lake SW	Pemadumcook Lake SE

Figure 1. Sample Block naming convention, using the Pemadumcook Lake topo map (represented by bold outline) as an example. In this example, “Pemadumcook Lake” is the name of the topo map and the last 2 letters refer to the Block’s location in relation to the topo map (NW = northwest, NE = northeast, CW = center west, CE = center east, SW = southwest, and SE = southeast).

Getting Signed Up. If you have already done this for the breeding component, you can skip this step. It is all the same project. Otherwise, step 1 is signing up as an official volunteer for the Maine Bird Atlas through the Department’s new Citizen Science portal (ifw.citizenscience.maine.gov). Click on the Bird Atlas link, read through the instructions, and register as a new user.

SURVEY METHODS: DATA COLLECTION, RECORDING, & SUBMISSION

Surveying a Block

Atlasing during winter is fairly straightforward. The goal is to visit all habitat types of each atlas block in an effort to document as many species as possible within the 14 December to 15 March survey window. We are aiming for a minimum of 6 hours of birding in each Atlas Block, with at least 3 hours of surveying during early winter (14 December to 31 January) and at least 3 hours of surveying during late winter (1 February to 15 March). These minimum survey hours were determined through a pilot study in Maine during the winter of 2018-19 and should allow us to detect at least 80% of the birds wintering in an atlas block.

Awareness of the Atlas Block name, your location within the Block, and your observations at that location are all critical for accurate surveying for the Maine Bird Atlas. If you do not have a GPS, you can work out the location of your observations by using the eBird app (in areas with or without cell phone coverage),



Google Earth, or paper maps. If all else fails, keep your wintering traveling checklists under 1 mile in length. Particularly during winter, it is important to record all of your observations of birds on every survey trip you make. Keep separate species lists for distinct areas and habitats in your Block.

All observations for the Maine Bird Atlas should include, as a minimum:

- List of observer(s) contributing bird records.
- Date of the survey in the field.
- Observation type, which can be “traveling” = observations made while birding over a specific distance; “stationary” = observations made from a fixed location (i.e., observer moving less than 30 meters while birding); or “incidental” = observations made when birding was not your primary purpose. Choose whichever category best represents your list of species.
- Exact time the survey started. Currently the eBird system flags a checklist as nocturnal if the survey starts more than 40 minutes before sunrise or more than 20 minutes after sunset, so please make separate checklists for nighttime and daytime observations.
- Duration of survey for “traveling” and “stationary” observation types.
- Survey distance in miles. Note that the distance traveled is the one-way distance. Do not count the distance you backtrack along the same track.
- Precisely determined location within the survey Block.
- Species observed. Tentative identifications should not be recorded. Contact the Regional Coordinator if you observe a potential rare bird, but are not able to confirm identification.
- Count or estimate of the number of individuals observed for each species at your location. Coming up with an accurate number can be challenging, but is a very important part of the winter atlas effort. See the “Determining Abundance” section on the next page for more guidance.

One of the advantages of using eBird to record your data for the atlas is that the data entry process can help automatically track some of this information for you and also prompt you to include all of these details with your submissions so you won’t forget a key piece!

When the time comes to document winter birds in your Block, you will want to be as organized as possible to make the most of your valuable time. The following approach is a suggested strategy for effective surveys once you have become familiar with the materials presented in this handbook, the layout of the Block you are surveying, and the potential birds you may encounter.

* **Organize.** Once you have decided on an atlas block to survey:

- Obtain a map of the Block from the Maine Bird Atlas webpage or from your Regional Coordinator. At the Maine Bird Atlas website, you can download digital color maps (in PDF format for easy printing) of Atlas Blocks in your region with either topographic or satellite imagery backgrounds. You can also download a file that can be added to your Google Earth app on your smartphone, tablet, or computer that will allow you to overlay the Atlas Blocks over other maps of Maine.
- Study habitats, topography, roads and trails, and the boundaries of the Block.
- If possible, visit the Block before the winter season starts so that access and route issues can be addressed.
- Assess whether you will need to request permission to access important areas of private property in the Block.

* **Timing.** Try to spread out your Block surveying over multiple visits throughout the winter season since winter birds do tend to move around a great deal and are typically not tied to specific territories. The winter survey period is from 14 December to 15 March, and at least 3 hours of surveying should be conducted during early winter (14 December to 31 January) and at least 3 hours of surveying should be conducted during late winter (1 February to 15 March). Avoid surveying during the first and last part of the day when birds can be moving to and from roosts. Visits during the night for nocturnal species are encouraged but optional. Visit the Atlas web-



page for additional guidance for conducting nocturnal surveys.

- * **Weather.** Surveys should, when possible, be conducted in good weather and not on days with strong winds, heavy snow/rain, very poor visibility, or extremely cold temperatures that may make birds inactive.
- * **Where to Survey.** There is no need to try to visit all areas of the Block. Most Atlas Blocks will contain multiple habitat types. You should attempt to survey representatives of each major habitat type present in the Block and keep separate species lists for each location. Areas with bird feeders can be important areas to check.
- * **Birds Near Block Boundaries.** The best way to treat birds near Block boundaries is to record exactly what you observe in each Block. For example, you may observe a Black-capped Chickadee crossing from one Block into another during your survey. This observation should get recorded for both Blocks.

Recording Observations in the Field

You can record data in the field two ways, either on paper or via the eBird app (see Appendix 3). We provide several Field Forms for recording data in the field (see Appendix 2) or you can record observations in your own field journal. If you use paper forms, double-check that all of your information is legible!

Remember that all bird observations for the Maine Bird Atlas should include, as a minimum: 1) the observer(s); 2) date; 3) observation type; 4) start time; 5) survey duration; 6) precisely determined location; 7) distanced surveyed; 8) species; and 9) count of individuals observed.

Determining Your Location. Now is a good time to stress the importance of keeping track of the location of your observations. We encourage you to pinpoint the precise location within an Atlas Block that best represents your list of species. We suggest subdividing your Block into surveyable sub-units and recording a precise location associated for each area surveyed. Traveling checklists should not exceed 1 or 2 miles in length as eBird only allows you to plot a single point to represent a traveling route, and that point will be the only location associated with all the birds you observed along your route.

Note, below, that for rare or unusual species, please record the precise coordinates of the location where you observed the species of interest.

Species Identification. Do not guess on species identifications. Tentative identifications should not be recorded. Your goal is to confirm wintering for as many species as you can and to count the number of individuals you detected for each species. Please collect additional supporting information for rare or unusual species you encounter. Additional information includes:

- Exact location of the bird (latitude and longitude, UTM coordinates, or a detailed description and map)
- The habitat where the bird was observed
- Description of the bird or a photo.

This additional information should be entered directly into the comments section in eBird for special documentation.

Determining Abundance. Counting or estimating the number of individuals observed for each species can be challenging, but is a very important part of the winter atlas effort. It is fine to estimate the number instead of giving an actual count, provided it is reasonably accurate. An educated guess is preferable to no count at all. The number entered on the checklist should be the total number of birds seen or heard, not a projected estimate of the number that may be present in the area but were not detected.



Additional Comments. Given we know so little about the winter ecology for most species in Maine, including general behavioral patterns and foraging activity, we encourage volunteers to provide any additional information of interest in the comments section for each species observation. For example, what species or type of plant was it observed on (e.g., evergreen vs. deciduous tree)? Was it foraging? Was it interacting with others of its own kind or with a different species?

Options for Submitting Data

Submitting Winter Bird Observations. OK, so you have your list of bird observations and you know where you were when you made them (i.e., at a minimum, the block level). Now, how do you get this information to us?

The preferred method for entering winter bird data is through the Maine eBird portal. While some volunteers may choose to use their smartphone to enter their observations in the field through the eBird app (works in areas both with and without cell phone coverage), others will prefer to use written records of their observations in the field and later transfer these records into eBird on their home computer. Don't know how to use "eBird" or don't even know what "eBird" is? That's OK. We'll teach you, but if you're already feeling confused and overwhelmed with the thought of online data entry, just skip to the last paragraph in this section for the alternative. Data entry through eBird really is quite simple and straightforward, though, so we encourage everyone to give it a try. Training opportunities are available to those interested. Just check our calendar of events or contact your local Regional Coordinator. Appendix 3 also provides details on how to enter data through eBird.

eBird is an international platform used for collecting and storing bird observations from all over the world in one big pot. There are individual "cups" (called portals) that collect region specific data and dump it into the larger pot that is eBird. For the Maine Bird Atlas, we are using two different "cups" or portals, the Maine Bird Atlas portal and the Maine eBird portal. Please take care to enter your checklists into the correct eBird portal.

- * **Winter observations** (i.e., winter atlas records) should be submitted to the Maine eBird portal (ebird.org/me).
- * **Breeding observations** (i.e., breeding atlas records), or any checklist with at least 1 species with a breeding code, gets entered into the Maine Bird Atlas Portal (ebird.org/atlasme).

This means that nearly all winter checklists and checklists during the migration season should be entered into the Maine eBird portal unless you find an early nesting species such as owls or pigeons. Visit our project website (maine.gov/birdatlas) to learn more about breeding codes and the breeding bird component to this project.

Setting the correct eBird portal for winter atlas records is quite simple. If you are entering records into eBird on your computer, just use the web address in the bulleted text above. For mobile eBird app users, this can be a little trickier depending on the version of the app you have on your phone. You will need to find the settings option within the eBird app (gear icon in the lower right hand corner of the home screen on some models, drop down list in the upper left hand corner of others, etc.) Once in settings, you can select the portal your mobile checklists will be entered from a dropdown list. If you accidentally submit a checklist to the wrong portal, switching it back is very easy. Instructions are given on the following website (<https://ebird.org/atlasme/news/change-portals>).

If you prefer not to use eBird for whatever reason, you may mail in paper records. If you are mailing in observations, it is extremely important, however, that you include UTM coordinates, latitude/longitude, or a detailed description to the exact location within the Block where the birds were documented. This will



ensure we can enter it correctly. Including a map of your Block with handwritten notes showing your observation areas is also very helpful. Send us your paper field forms each month ONLY if you did not already enter them into eBird. Paper forms can be mailed directly to Maine Bird Atlas, Maine Natural History Observatory, 317 Guzzle Road, Gouldsboro, ME 04607. Please make copies or take photos of your Field Forms before mailing them, in case they get lost in the mail. You can also scan your completed forms and maps and email them to mainebirdatlas@gmail.com.

Submitting Volunteer Hours. The amount of time you spend surveying winter birds in Maine and the mileage your drive for these surveys can be leveraged to help fund this project! The federal dollars we are using to fund the organization and management of this project come with a catch - a 25% match, catch. Any work you do for the Maine Bird Atlas can count for this funding match. This includes travel time to and from a field site, miles of travel to and from field sites, time preparing for field surveys, attendance at training events, time entering bird records, etc.

We just need the total amount of time and miles you contributed to the project on any given day. Once you have registered as an official volunteer, return to the Department's citizen science portal page (ifw.citizenscience.maine.gov) and click on the "Sign In" button. Once signed in, please enter your daily time and mileage. We have also provided a form to help you keep track of your volunteer hours and miles driven (Appendix 2).

How to Know When your Atlas Block is Complete

Deciding when an Atlas Block is complete during winter is fairly straightforward:

- * **Total Survey Time.** At least 6 hours of active surveying has been spent in the Block. If you survey together with others in the field, count each survey hour as one hour. If two people survey at the same time but in separate locations in a survey Block, survey hours of each person count separately.
- * **Timing of visits.** The winter survey period is from 14 December to 15 March; at least 3 hours of surveying should be conducted during early winter (14 December to 31 January), and at least 3 hours of surveying should be conducted during late winter (1 February to 15 March).
- * **Coverage of Habitats.** Each habitat type present in the Block has been checked. Note that some habitat types may not be able to be surveyed if on private land and permission to access is not given.

You will not be prevented from re-visiting completed Blocks and adding additional records and new species. Returning to Blocks to seek out missed species is a good thing, but you should be careful not to spend a great deal of time doing so...your time is likely better spent working in a new Block.

Where to Get Answers to Your Questions

Your primary source for assistance will be the Regional Coordinator (see Appendix 1). You can also go to the Maine Bird Atlas webpage where you can read the Frequently Asked Questions page. You can also submit your questions directly to the Project Coordinator and Director.



SAFETY, BIRD DISTURBANCE, & PRIVATE PROPERTY

Your Personal Safety

Safety of all atlas volunteers is a high priority. Be safe! Always put your safety first. Don't take chances in the field and don't survey birds alone when off-road or at night. Do not enter an area that looks unsafe, for any reason. Be careful and vigilant around ice. Working in pairs or teams is strongly encouraged, particularly in remote areas. As a volunteer participant in the Maine Bird Atlas, you are fully responsible for your own safety, and for your own personal insurance in case of injury, unless you opted-in for state coverage when signing up as an official volunteer (see "Getting Signed Up" above). Make sure you let someone know where you are going before heading out in the field each day, the time you expect to return, and how to contact you. This is particularly important if you work alone or go off-road. Put a copy of the atlas volunteer placard in the window of your car while you are surveying (Appendix 4). If driving on an active logging road, drive cautiously, with your lights on, and yield to logging trucks. Be very cautious when stopping along roadsides and use your flashers. Stay on known roads and well-marked trails at night. Be cautious of severe weather and slippery roads. Do not survey areas if you think that your safety will be compromised for any reason.

Always carry a compass and multiple maps with you and know how to use them. Consider extra safety precautions in areas not covered by cell phones. Always carry a charged cell phone, compass, a GPS, and multiple sets of spare batteries. Marking your car as a waypoint in your GPS is always a good idea prior to leaving your vehicle, and knowing how to navigate back to this point is essential. When working in remote areas, bring water, survival gear including a first aid kit, warm clothes, rain gear, safety matches, a pen knife, a space blanket, lighter, emergency snacks, and water treatment. Let someone know where you are going, when you are expected back, and make sure to check in as soon as you get home. Be aware of ticks that can transmit Lyme Disease; even during winter. Always check yourself over for ticks and have someone remove them quickly and cleanly if any are found.

Respect for Birds & Habitat

The welfare of birds and the protection of their habitat are extremely important. Always minimize disturbance to birds and the surrounding vegetation. The following guidelines should be followed by ALL involved with fieldwork for the Maine Bird Atlas:

- Sightings and photos should never take precedence over the well-being of a bird. Birds are easily stressed in winter and unnecessary movements that seem simple or normal for a bird can have dire energetic consequences and compromise bird welfare.
- Never approach birds too closely and keep disturbance to a minimum. Take extra care when surveying in groups. If a bird shows signs of agitation, retreat immediately.
- Avoid trampling of vegetation, stay on roads, trails, and paths when possible.

Respect for Private Property

Access to private land and public land presents logistical challenges when surveying Atlas Blocks. Respect barriers, follow laws, and obey signs. Private property should never be entered without permission. Remember that there is no reason to survey every private property in an Atlas Block. Only consider requesting access to private lands that may have important habitats or species not present elsewhere in your Block. Stay on roads, trails, and paths where they exist to keep habitat disturbance to a minimum. Permission should always be secured from landowners before entering private lands (see Appendix 5 for sample permission letter). It is also important to inform land stewards of your interest in conducting atlas surveys



on public lands. In many instances, landowners will have no objections to your looking for birds on their property.

Be sure to be courteous when explaining what you are attempting to accomplish and remember that a friendly attitude will go a long way. Remember that access during the early morning should be arranged ahead of time. If someone denies permission to enter the property, do not press the issue or continue to contact them.

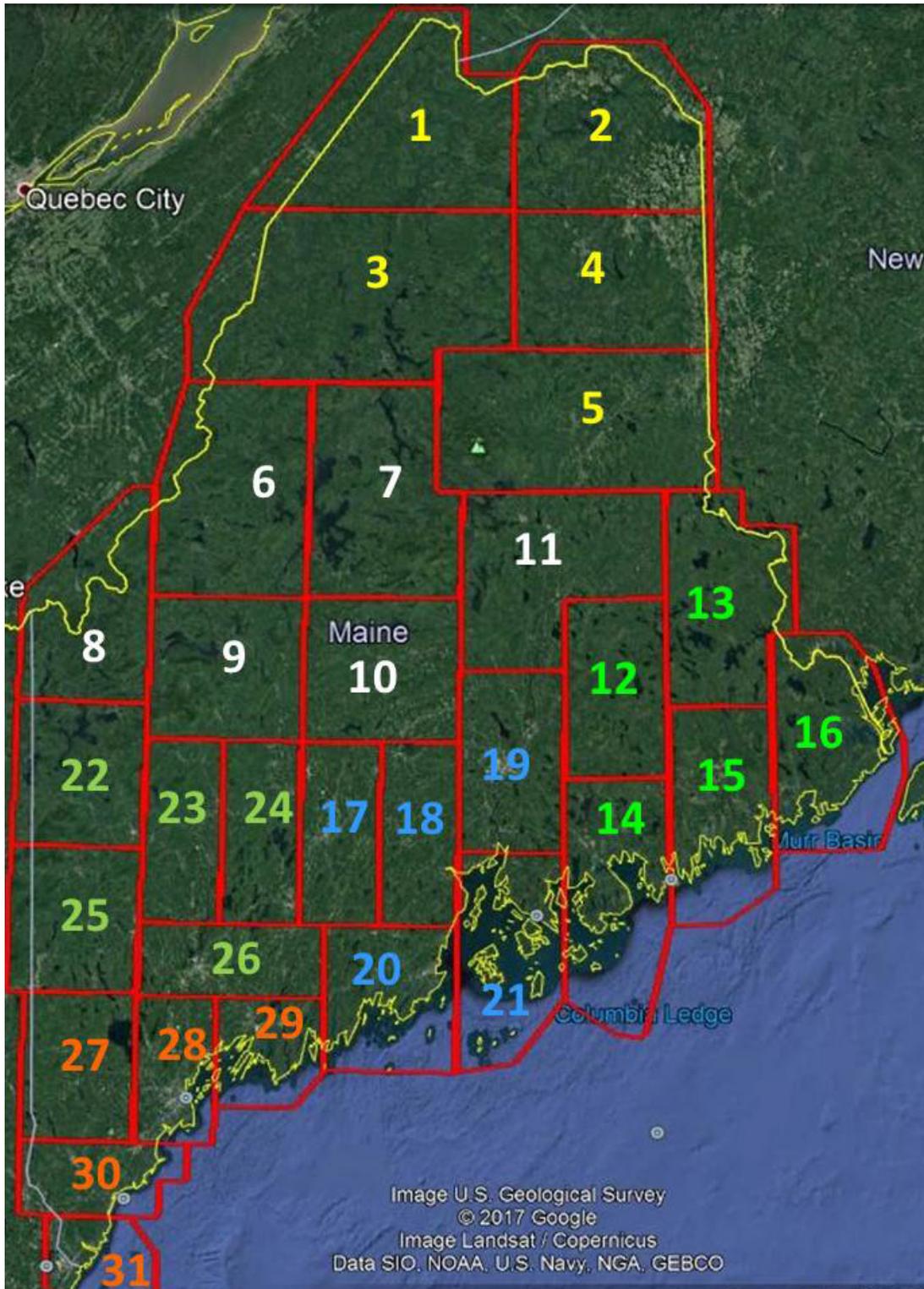
In some instances, it may be difficult to determine who owns certain parcels of land. Inquiring door-to-door can be an effective way to determine land ownership. If this approach fails to reveal a specific landowner, you may want to consult with officials at the appropriate town office.

If a landowner does grant you permission to enter their land, be sure to follow any additional instructions that landowners give you and give them a schedule of when you expect to be on their property. Be respectful of their property and take great care to not damage crops, fences, or other structures.



Appendix 1. Regional Coordinators & Map of Regions

We divided Maine into 6 Super-regions, the regions noted in the table to the right of the map below and color coded on the map, and 31 Regions and we assigned a Volunteer Coordinator to each Region. The duties of Regional Coordinators for the Maine Bird Atlas are to: 1) help recruit volunteers to survey Atlas Blocks; 2) manage Block assignments in the region; 3) help answer any questions volunteers may have; and 4) help review and validate bird records flagged as needing supporting details. The Super-region Coordinators for the 6 larger Super-regions work more closely with the Atlas Director and Coordinator while making sure things run smoothly in each Super-region.



<p>Northern Region</p> <p>1) Allagash 2) Caribou 3) Chamberlain Lake 4) Presque Isle 5) Houlton</p>
<p>Northwestern Region</p> <p>6) Jackman 7) Greenville 8) Kennebago Lake 9) Carrabassett Valley 10) Dover-Foxcroft 11) Millinocket</p>
<p>Downeast Region</p> <p>12) Aurora 13) Topsfield 14) Frenchman Bay 15) Columbia Falls 16) Dennysville</p>
<p>Mid-coast Region</p> <p>17) Waterville 18) Brooks 19) Bangor 20) St. George 21) Vinalhaven</p>
<p>Western Region</p> <p>22) Rangeley 23) Farmington 24) Belgrade 25) Woodstock 26) Lewiston</p>
<p>Southwestern Region</p> <p>27) North York 28) Portland 29) Popham Beach 30) Mid York 31) South York</p>



Appendix 1. Regional Coordinators (continued)

List of Regional Coordinators and their contact information.

NORTHERN REGION: Bill Sheehan (bill.j.sheehan@gmail.com)

- 1) **Allagash:** Don Lima (winkumpaughwoodworks@gmail.com)
- 2) **Caribou:** Kimberly Hitchcock (me_rabbit7@yahoo.com)
- 3) **Chamberlain Lake:** Chris West (christineanitawest@gmail.com)
- 4) **Presque Isle:** Judy Roe (jlroe7@gmail.com)
- 5) **Houlton:** Tammy Kerekes (tammylkerekes@gmail.com), Dennis Kerekes (varminthunter57@yahoo.com)

NORTHWESTERN REGION: Kyle Lima (kylelemur21@gmail.com), Nick Leadley (nick@touchthewild-photos.com)

- 6) **Jackman:** Sandi Duchesne (smduchesne@roadrunner.com)
- 7) **Greenville:** Bob Duchesne (duchesne@midmaine.com)
- 8) **Kennebago Lake:** Nick Leadley (nick@touchthewildphotos.com)
- 9) **Carrabassett Valley:** Kate Weatherby (kweatherbymba@gmail.com)
- 10) **Dover-Foxcroft:** Kate Weatherby (kweatherbymba@gmail.com)
- 11) **Millinocket:** Kyle Lima (kylelemur21@gmail.com), John Wyatt (birdsnbears@roadrunner.com)

DOWNEAST REGION: Chuck Whitney (whitneywhistles@gmail.com), Maurry Mills (maurymills@gmail.com, Maurice_Mills@fws.gov)

- 12) **Aurora:** Malcolm Hunter (mhunter@maine.edu)
- 13) **Topsfield:** Maurry Mills (maurymills@gmail.com, Maurice_Mills@fws.gov)
- 14) **Frenchman Bay:** Rich MacDonald (rich@thenaturalhistorycenter.com)
- 15) **Columbia Falls:** Chuck Whitney (whitneywhistles@gmail.com)
- 16) **Dennysville:** Woody Gillies (cwgillies@gmail.com)

MID-COAST REGION: Steve Mierzykowski (steve_mierzykowski@msn.com)

- 17) **Waterville:** Herb Wilson (whwilson@colby.edu), Bets Brown (bbrown6548@gmail.com)
- 18) **Brooks:** Tom Aversa (tom.aversa@gmail.com)
- 19) **Bangor:** Steve Mierzykowski (steve_mierzykowski@msn.com)
- 20) **St. George:** Don Reimer (reimer6117@tds.net)
- 21) **Vinalhaven:** Seth Benz (sbenz@schoodicinstitute.org)

WESTERN REGION: Logan Parker (lparker.mainelakes@gmail.com)

- 22) **Rangeley:** Seth Davis (kd7gxf@gmail.com)
- 23) **Farmington:** Pete McKinley (peter_mckinley@tws.org), Trevor Persons (Trevor.Persons@nau.edu)
- 24) **Belgrade:** Logan Parker (lparker.mainelakes@gmail.com)
- 25) **Woodstock:** Chris Lewey (chris@ravenprograms.com)
- 26) **Lewiston:** Kevin Rogers (kevin.rogers82@gmail.com)

SOUTHWESTERN REGION: Doug Hitchcox (dhitchcox@maineaudubon.org)

- 27) **North York:** Laura Minich Zitske (lzitske@maineaudubon.org), Brad Zitske (brad.zitske@maine.gov)
- 28) **Portland:** Doug Hitchcox (dhitchcox@maineaudubon.org)
- 29) **Popham Beach:** Becky Marvil (bmarvil@maine.rr.com)
- 30) **Mid York:** Scott Richardson (atlas@aves-specta.com)
- 31) **South York:** Glen Mittelhauser (mainebirdatlas@gmail.com)



Appendix 2. Field Forms

More compact, printable Field Forms are available on the Maine Bird Atlas webpage.

Maine Winter Bird Atlas - 2018-2022: Block Survey Checklist (www.maine.gov/birdatlas for more info)

Optional paper form for recording results of block surveys - When form completed, enter into eBird or send hard copy or scanned copy to the Maine Bird Atlas (mainebirdatlas@gmail.com; or 317 Guzzle Rd, Gouldsboro, ME 04607)

Atlas Block Name: _____ Date: _____ / _____ /20_____

Observers: _____

Travel Effort between Home and Block - Miles: _____ Hours: _____

Start Time: _____ End Time: _____ Duration (hrs, min): _____ Miles: _____

Specific Location Within Block: _____

Species	Count
Snow Goose	
Brant	
Canada Goose	
Mute Swan	
Wood Duck	
Northern Shoveler	
Gadwall	
Eurasian Wigeon	
American Wigeon	
Mallard	
American Black Duck	
Northern Pintail	
Green-winged Teal	
Canvasback	
Ring-necked Duck	
Greater Scaup	
Lesser Scaup	
King Eider	
Common Eider	
Harlequin Duck	
Surf Scoter	
White-winged Scoter	
Black Scoter	
Long-tailed Duck	
Bufflehead	
Common Goldeneye	
Barrow's Goldeneye	
Hooded Merganser	
Common Merganser	
Red-breasted Merganser	
Ruddy Duck	
Ring-necked Pheasant	
Ruffed Grouse	
Spruce Grouse	
Wild Turkey	
Red-throated Loon	
Common Loon	

Species	Count
Horned Grebe	
Red-necked Grebe	
Northern Fulmar	
Northern Gannet	
Great Cormorant	
Double-crested Cormorant	
Great Blue Heron	
Turkey Vulture	
Northern Harrier	
Sharp-shinned Hawk	
Cooper's Hawk	
Northern Goshawk	
Bald Eagle	
Red-shouldered Hawk	
Red-tailed Hawk	
Rough-legged Hawk	
American Coot	
Ruddy Turnstone	
Sanderling	
Dunlin	
Purple Sandpiper	
Dovekie	
Common Murre	
Thick-billed Murre	
Razorbill	
Black Guillemot	
Atlantic Puffin	
Black-legged Kittiwake	
Bonaparte's Gull	
Black-headed Gull	
Little Gull	
Ring-billed Gull	
Herring Gull	
Iceland Gull	
Glaucous Gull	
Great Black-backed Gull	
Rock Pigeon	



Appendix 3. eBird Data Entry - Users Guide

You do not need a smartphone to enter your atlas data into eBird, although entering data that way can be very effective in areas both with and without cell phone coverage. You can record your data in the field on paper forms or in your notebook, then enter data into eBird at a later time on a computer at home or at the library. Don't rely on your memory alone to collect data. Write your observations down on Field Forms or in your notebook as you see them. **We encourage all observers to submit their own winter bird records through the Maine eBird portal.** For any checklist (i.e., list of bird observations from a specific location) that has a breeding code, such as for a winter breeding owl, please use the Maine Bird Atlas eBird portal.

There are several guides and tutorials explaining how to enter data into eBird, available through the eBird Help menu. The following instructions were built in the fall of 2019 based on using eBird on a home computer and will hopefully work for some time. Refer to the eBird help menu if these instructions do not appear to work. There is an eBird app that you can install on your phone, if you prefer entering data directly in the field.

Getting started for new users. Go to the eBird webpage (ebird.org/content/ebird/). Select the "Submit" tab near the top of the page. New users should hit the "Create Account" button where you will enter your name, email address, choose your username, and create password for your new account. We encourage you to write down your username and password for eBird and keep it in a safe place. If you already have a user account for ANY of Cornell Lab of Ornithology's projects (e.g., Project Feederwatch, Great Backyard Bird Count, etc.), you can use this same username and password for submitting data to eBird.

Entering data in eBird. After signing in to your eBird account, select the "Submit" tab. This will take you to the first screen titled "Where did you bird?". The first time you use the atlas portal to enter data from a specific Block or location, you should use the "Find it on a Map" option. Type "Maine" into the box, then click on "Maine, United States (US)" that appears underneath, and you will be shown a map of Maine. Use the zoom tools ("+" and "-" buttons in upper left) to zoom in on the map and you can drag the map to pan to the exact location that you surveyed or observed birds. Zoom in as far as possible when plotting your observation point to prevent location errors. The buttons on the upper left of the map allow you to switch between satellite imagery, plain maps, and topo maps.

On the map, you may see blue pins (your existing eBird locations, if you have any) and red pins (birding hotspots). You can use one of these existing pins (by clicking on it) if it accurately represents your birding location. We do not suggest using birding hotspots (the red pins) to report your atlas observations as often these hotspots refer to larger areas that cross Block lines or are near Block edges and may not be a good representation of where you birded.

To set up a new location on the map that represents where you birded, click on the map to plot the midpoint or center of the area that your species list represents. You should enter a name for this location where it says "Enter Location Name". It really doesn't matter what you call it, but we strongly suggest including the Atlas Block name in your location name. Note that after you enter a location once, the location name will be available from the "Choose From Your Locations" dropdown list. You can select an entire Atlas Block as your location (Blocks are approximately 9 square miles), but these less precise locations are not as useful for analysis, so we recommend using the Block-wide point for data entry only in rare instances when you were not exactly sure where you were in the Block, or for the odd incidental observation. Hit the "Continue" button to go to the "Date and Effort" page.

On the "Date and Effort" page, choose the observation date from the pulldown menu. For "Observation Type" most atlas volunteers working in their Block will select "Traveling", but you should select the type of observation that best describes your checklist. Enter the start time of your survey and make sure to choose AM or PM or



Appendix 3. eBird Data Entry (continued)

use the 24-hour clock. Currently the eBird system flags a checklist as nocturnal if the survey starts more than 40 minutes before sunrise or more than 20 minutes after sunset, so please make separate checklists for nighttime and daytime observations. Do estimate and fill in the distance traveled and the party size, if applicable. Note that the distance traveled is the one-way distance. Do not count the distance you backtrack along the same track. Hit the “Continue” button to go to the “What did you See or Hear?” page.

On the “What did you see or hear?” page, enter the number of individuals you observed for each species at the location covered by that checklist. It is fine to give a rough estimate for the number of individuals seen or heard. Once you have all of your records entered, click the “Submit” button in the lower right hand corner of the screen.



Appendix 4. Volunteer Vehicle Placard. Printable Placards are available on the Maine Bird Atlas webpage.

BIRD SURVEY IN PROGRESS

Maine Bird Atlas Volunteer

The Maine Bird Atlas is a 5-year project to document the numbers and distribution of breeding and wintering birds in Maine. A volunteer of the Atlas Project has parked here to gather important information for the project in a nearby area.

Atlas volunteers have been trained to record data by observing birds only and will not cause disturbance to wildlife or property.

If you have concerns or would like to participate, visit www.maine.gov/birdatlas or contact the Maine Bird Atlas project coordinator (mainebirdatlas@gmail.com).

In an emergency, contact the Maine Game Warden dispatch center 24-hours a day (1-800-432-7381).

Thank you for your cooperation!





Appendix 5. Landowner Permission Request Letter.

Printable Letters are available on the Maine Bird Atlas webpage.



Dear Landowner,

I am a volunteer working on the Maine Bird Atlas project, a 5-year citizen science project using hundreds of volunteers to document the numbers and distribution of breeding and wintering birds throughout Maine. I am writing to ask permission to access your land for the purposes of this project. I am hoping to make several visits this winter to simply observe and count birds. The results of this project will be vital to understanding the status of birds in Maine.

Your property is included in a 9-square-mile survey block that I am surveying. Your property may contain unique habitats, and birds, not found elsewhere in the block and I would like to take a closer look. The only activity on your land will be to watch and count birds. I assume full responsibility for my own welfare and will be careful not to disturb you or your property. I am willing to discuss any rules or stipulations you may have, and I am happy to provide you with a list of birds observed during my visits. In addition, I would be grateful to receive any information that you may already have about birds on your property.

Would you grant me permission to survey birds on your land as per the following:

Specific areas to survey:

Time of survey (how often, time of day):

Thank you for considering my request. Please feel free to contact me with any questions you may have as well. I look forward to hearing back from you within the week.

Please visit the Maine Bird Atlas webpage at www.maine.gov/birdatlas to learn more about the project and even sign up to be a volunteer yourself.

Sincerely,

Surveyor:

Telephone:

Email:



Appendix 6. Project Staff, Committee Members, & Partners

The Maine Bird Atlas project staff extends a sincere thank you to the partner organizations and committee individuals who contribute a significant amount of time and effort to this project.

Project Staff

Project Director

Adrienne Leppold, Ph.D. (MDIFW)

Project Coordinator

Glen Mittelhauser (MNHO)

Outreach Coordinators

Doug Hitchcox and Laura Minich Zitske (Maine Audubon)

Spatial Analysis and Mapping

Amy Meehan (MDIFW)

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 Amber Roth
 Brian Olsen

Partners



Maine Natural History
 Observatory

