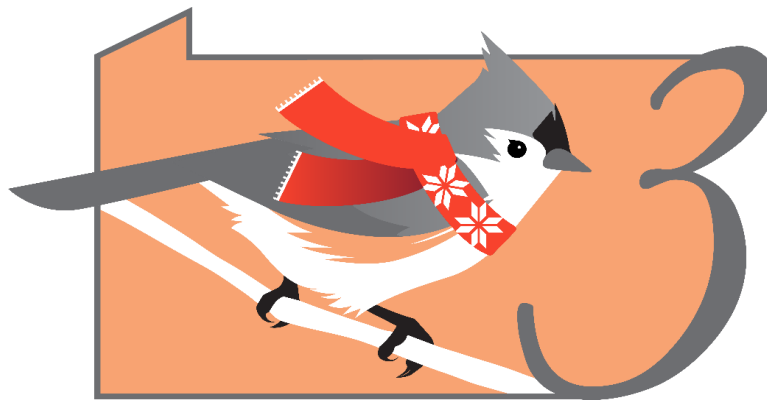


# PENNSYLVANIA BIRD ATLAS 3

## WINTER SURVEY

2024 – 2029



## VOLUNTEER HANDBOOK



A project of the [Pennsylvania Game Commission](#) and [Hawk Mountain Sanctuary](#)

November 2024, version 1.3

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## QUICK START GUIDE

### SUBMIT DATA USING THE “PENNSYLVANIA BIRD ATLAS” PORTAL IN EBIRD

- Download the free [eBird](#) app for quick and accurate data collection in the field.
- Switch to the [Pennsylvania Bird Atlas portal](#) in eBird. Switch out of the portal when you do not want the data to go into the atlas—such as if you venture out of state or are not following Atlas protocols.
- If you are using the web version of eBird instead, submit data to the Atlas portal at: <https://ebird.org/atlaspa/submit>.

### SUBMIT DATA FROM ANYWHERE IN THE STATE AT ANY TIME

- The state is divided into 4,938 3x3 mile blocks. Make sure that your checklists do not cross [block boundaries](#). If your checklist is a [traveling checklist](#), start a new checklist at the boundary.
- Be very careful when using [eBird hotspots](#), as many are close to block boundaries. Personal locations at the exact location of your checklist are preferred.

### ASSIGN BIRDS TO THE BLOCK THEY ARE OBSERVED IN

- Only report and count (or estimate) the birds that you identify in the block you are surveying. Birds observed outside of the block should be assigned to a different checklist using a location in the correct block.

### ATLAS ETHICALLY

- Keep disturbance to wintering birds to a minimum and respect people and property at all times. Please read the atlas [Code of Ethics](#). Do not rely on [Merlin](#) for species identification - always verify Merlin’s suggestions for yourself.

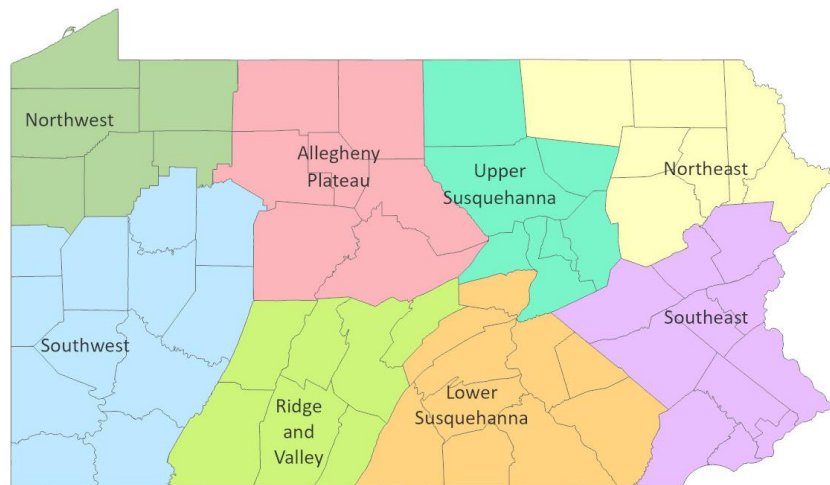
### HAVE FUN!

## CONTACT US

We're here to help!

- Reach the Pennsylvania Bird Atlas team at: [pabirdatlas@hawkmountain.org](mailto:pabirdatlas@hawkmountain.org)
- Regional email addresses are provided below. Please refer to [ebird.org/atlaspa/about/atlas-team](http://ebird.org/atlaspa/about/atlas-team) for the most up-to-date contact information Regional and County Coordinators.

### PBA3 Regions



### REGIONAL COORDINATION

- Northwest – [PBA3.Northwest@gmail.com](mailto:PBA3.Northwest@gmail.com)
- Southwest – [tjk.kuehl@gmail.com](mailto:tjk.kuehl@gmail.com)
- Allegheny Plateau – [PBA3.AlleghenyPlateau@gmail.com](mailto:PBA3.AlleghenyPlateau@gmail.com)
- Ridge and Valley – [dsg4@psu.edu](mailto:dsg4@psu.edu) and [gwg2@psu.edu](mailto:gwg2@psu.edu)
- Upper Susquehanna – [PBA3.UpperSusquehanna@gmail.com](mailto:PBA3.UpperSusquehanna@gmail.com)
- Lower Susquehanna – [PBA3.LowerSusquehanna@gmail.com](mailto:PBA3.LowerSusquehanna@gmail.com)
- Northeast – [PBA3.Northeast@gmail.com](mailto:PBA3.Northeast@gmail.com)
- Southeast – Carbon, Schuylkill, Berks, Chester, Delaware - [rgallardy@gmail.com](mailto:rgallardy@gmail.com); Monroe, Northampton, Lehigh, Bucks, Montgomery, Philadelphia - [pflicke.holger@gmail.com](mailto:pflicke.holger@gmail.com)

## INTRODUCTION

Breeding bird atlases have a long history extending back to at least the 1950s, but winter bird atlases have been attempted by only a handful of states and countries since the Atlas of Wintering Birds in Britain and Ireland (1981-1984), including Oklahoma, Connecticut, Maine, and North Carolina. Pennsylvania has never conducted a winter bird atlas.

Winter is a critical time of year for bird populations because food and cover can be limiting, and severe winter weather events can result in high mortality. Additionally, the breeding productivity of birds can be affected by their health and condition coming out of the previous winter season. Increasingly, it is known that those bird species which winter in North America are also facing rapidly changing environments due to land use change and climate change. Yet winter bird distribution and abundance remain much less extensively studied than do those in the breeding season. A [Winter Atlas](#) effort, as part of the [3<sup>rd</sup> Pennsylvania Bird Atlas \(PBA3\) project](#), will set an important baseline for 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 Pennsylvania Bird Atlas project. Field work for the PA Winter Atlas will occur from 2024 to 2029, beginning in December 2024. During this winter period, most bird species present in Pennsylvania are exclusively wintering. However, a small number of species with year-round or very early breeding seasons will overlap with the winter survey season. Breeding observations of these species can be contributed concurrently with data collection for the Winter Atlas.

We want to involve as many people as possible, including newer and younger birders, in Pennsylvania's 3<sup>rd</sup> Bird Atlas. Volunteers who have participated in the 3<sup>rd</sup> Breeding Atlas recognize the time and effort required to understand the breeding codes and seasonal dates used to contribute breeding records. The learning curve is much gentler for the Winter Atlas; therefore, we believe this effort can serve as an easier entry point for new atlasers. The success of the Winter Atlas, and the entire PA Bird Atlas project, will rely on the efforts of many volunteer birders. We hope this project will provide an opportunity for birders to have fun, learn about birds, explore the Keystone state, and contribute to our knowledge and the conservation of the birds of Pennsylvania.

Finally, be mindful of the wildlife you are observing. Winter is a critical period during which energy and resources are not plentiful for birds and other wildlife, and unnecessary movements due to disturbance can impact their well-being. Try to minimize the stress and impact your birding activities have on wildlife. A sighting or photo should never take precedence over the well-being of wildlife.

## OBJECTIVES

The purpose of Pennsylvania's 3<sup>rd</sup> Bird Atlas is to provide a comprehensive understanding of the distribution and relative abundance of PA's bird populations, during both breeding and wintering seasons. The Winter Atlas will:

- Provide current information on the species that winter in Pennsylvania and their distributions.
- Identify spatial and temporal patterns of relative abundance for winter birds.
- Identify priority winter bird habitats and regions based on species diversity and relative abundance estimates.

## WINTER ATLAS SEASON

Winter Atlas surveys will take place between December 1 and February 28, beginning in December 2024 and culminating at the end of February 2029. The winter survey season will be divided into early winter (December 1 – January 15) and late winter (January 16 – February 28) periods.

<b>Early Winter</b>	<b>Late Winter</b>
December 1 – January 15	January 16 – February 28

## ATLAS BLOCK SYSTEM



The PBA3 uses the ‘[block](#)’ system based on 7.5-minute (1:24,000) U.S. Geological Survey quadrangles (quads). Each quad is subdivided into 6 blocks for a total of 4,938 blocks across the state. Blocks are each roughly 3 x 3 miles, totaling about 9 mi<sup>2</sup> (23 km<sup>2</sup>), except for blocks along borders of the state, which may be irregularly shaped and sized. Each block is given the name of the quad it is located in followed by a 2-letter code denoting the position of the block within the quad: northwest (NW), northeast (NE), center-west (CW), center-east (CE), southwest (SW), or southeast (SE). All southeast (SE) blocks are designated as ‘Winter Priority’ blocks. Block boundaries can be seen in the eBird mobile app, and maps can be downloaded from the [Atlas Map Tool](#).

*Example quadrant consisting of six blocks.  
The southeast (SE) block highlighted in  
yellow is a priority block.*

Atlas blocks are the scale at which data are collected for the PBA3. Just like the aim of the Breeding Atlas is to develop a list of the bird species breeding in each block, the aim of the Winter Atlas is to produce lists of the species present during winter in as many blocks as possible. Therefore, it’s important that each checklist only includes birds observed in the block you are currently atlas-ing in and submitting a checklist for. If a bird is observed outside of the block, it should be excluded from your list (resulting in an incomplete checklist) or put on a separate incidental checklist with a location from the correct block. As in the Breeding Atlas, it may be necessary to select personal locations for checklists rather than hotspots, as hotspot points may lie in different blocks than your observations. This will help ensure the accuracy of your checklists.

Winter Atlas effort will be reduced relative to the Breeding Atlas given the logistics of birding during months with shorter days and more challenging weather. **For that reason, data collection is encouraged in all blocks, but we will prioritize completing priority blocks to help ensure even coverage across the state.**

**Additionally, each priority block will be assigned to a season during which it is to be completed.** This approach will help spread effort across the winter seasons, which is important because how birds are distributed and faring during the winter can vary significantly from year to year.

Across the state, there are 817 priority blocks. Each of our 67 counties contains between 3 and 24 priority blocks. By assigning the priority blocks to winter seasons one through four, only a small number of priority blocks will need to be completed in a county each season – only 3 to 5 blocks in most counties.

## DATA ENTRY

As with the Breeding Atlas effort of the PBA3, Winter Atlas data are collected via the Pennsylvania Bird Atlas portal in eBird. **You may enter all birding data into the Atlas portal as long as you are birding within Pennsylvania and you remain within a single block for each checklist.** All data you enter this way will still enter into your single eBird account, but by submitting data via the Atlas portal you are indicating that you are following PBA3 protocols. This is important for ensuring the quality of the data we collect. Don't know how to use eBird? See [here](#) for help getting started. You can also inquire with your [County and Regional Coordinators](#) about eBird training opportunities.

### 1. eBIRD MOBILE APP

The simplest way to submit data is to use the mobile eBird app and enter your data using your smartphone while you are in the field. If you are birding in an area without cell coverage, you can still enter your observations in the mobile app, but you will select your location and submit the checklist after returning to cell coverage. To begin submitting data from your phone, you will need to [change the portal](#) in the app settings (Appendix A).

### 2. eBIRD WEBSITE

You may also choose to take written records of your observations in the field and later enter on a computer at [ebird.org/atlaspa/submit](http://ebird.org/atlaspa/submit). We provide [field forms](#) to print and use for data recording in the field.

### 3. PAPER FIELD FORMS

For birders without computer access or who otherwise do not use eBird, you may either:

- Mail completed forms to:  
PA Bird Atlas, 414 Forest Resources Building, University Park, PA 16802
- Scan forms and email to [pabirdatlas@hawkmountain.org](mailto:pabirdatlas@hawkmountain.org).

**Note: Only field forms that have NOT been entered into eBird need to be sent to us.**

## TIMED ONE-HOUR SURVEYS

All birding observations are useful for understanding species' distributions. However, surveys with standardized effort are needed to help us understand how **numerous** a given species is. During the Breeding Atlas, birders conduct point counts for this purpose. For the Winter Atlas, birders will conduct traveling (on foot) surveys of precisely one hour. Data from these 1-hour surveys will be especially useful for making comparisons across blocks.

### ONE-HOUR SURVEY PROTOCOL:

1. Study the block ahead of time and identify suitable habitat patches for conducting surveys in. Ideally, each 1-hour survey will cover one habitat patch or type. For example, a 1-hour survey could take place along a forested trail, through a shrubby meadow, or around an urban neighborhood.
2. Survey the designated habitat patch on foot, identifying and counting all birds seen and heard.



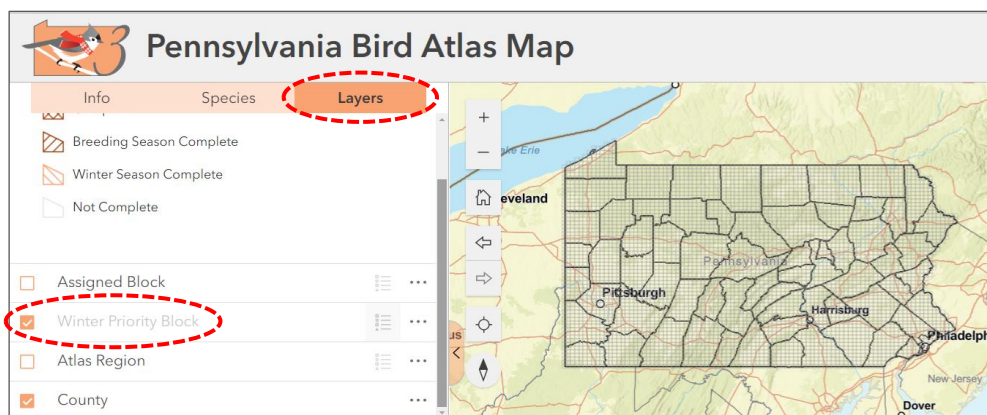
3. Don't worry about the distance covered but do try to keep the checklist to precisely one hour. Set a timer if needed to ensure that you end your survey on time.
4. Only record the birds detected during the 1-hour survey on your checklist. If you want to record other birds detected outside of the survey window, start a new checklist once the 1-hour survey is over, or record additional birds as incidentals. This will help ensure that the data used for estimating relative abundance is accurate.
5. One-hour surveys can be conducted at any time of day, except the first hour after dawn and the hour before dusk, when birds may be traveling from or to roost sites. Find your local sunset and sunrise times at [www.suncalc.org](http://www.suncalc.org). Multiple 1-hour surveys can be completed in a day, but make sure that each survey is recorded as a unique checklist.
6. As with other types of surveys, avoid conducting 1-hour surveys during inclement weather that will impact your ability to see or hear birds.
7. Unlike the volunteer point count surveys conducted for the Breeding Atlas, you do **not** need to assign a specific name to your 1-hour survey checklists (though you may, if it helps with keeping track of your personal effort). Additionally, do not share these checklists with the 'PA Bird Atlas' eBird account like you do with the volunteer point counts.

## COMPLETING PRIORITY BLOCKS

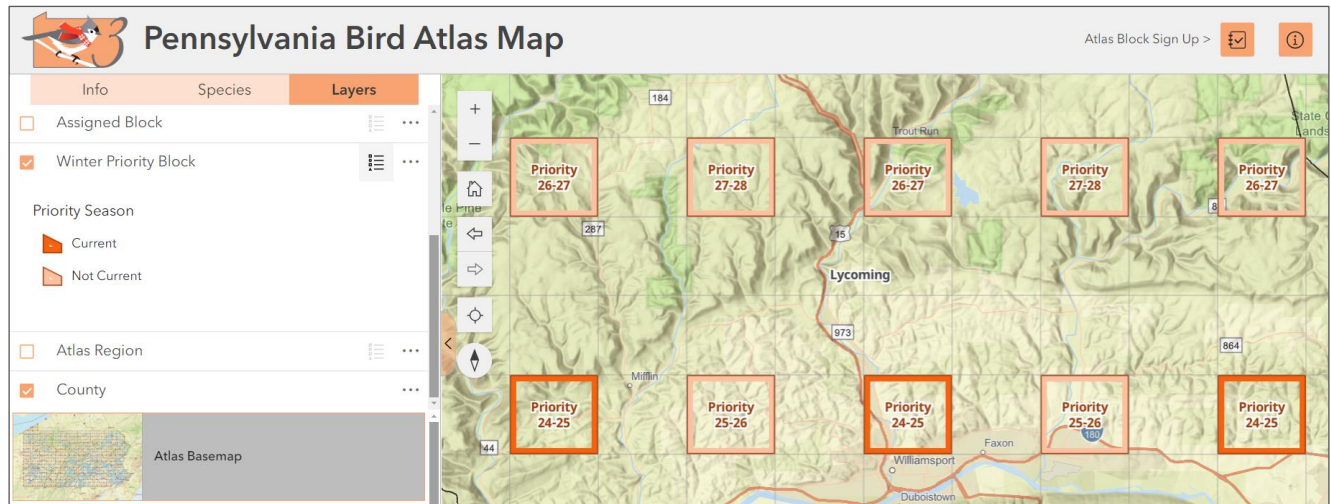
**Each priority block will be assigned to a winter season (1 – 4) during which it is to be completed.** (The fifth and final winter season will be used to finish priority blocks that were not completed previously, and/or to improve coverage in defined areas.)

Winter Season	Time Frame
1	Dec 2024 – Feb 2025
2	Dec 2025 – Feb 2026
3	Dec 2026 – Feb 2027
4	Dec 2027 – Feb 2028
5	Dec 2028 – Feb 2029

The priority blocks and their assigned seasons are found in the [Atlas Map Tool](#). After opening the map, make sure you are in the 'Layers' tab and the 'Winter Priority Block' layer is turned on. You may want to turn off other layers to improve visibility.



Zooming in will highlight the priority blocks, and the priority season will also appear once zoomed in enough. The darker orange blocks indicate the current (or upcoming) winter priority season.



**Principal atlasers** are the default volunteers responsible for completing priority blocks. Any principal atlasers unable to survey their priority blocks in the assigned season should communicate with their **County Coordinators** before the season so that an alternative surveyor can be identified.

At a minimum, a priority block needs to be visited only two times (once in early winter and once in later winter) to complete; therefore, it is entirely feasible to complete in one season. The following list includes the criteria that will determine block completion. However, all additional data collected in priority blocks in any of the winter seasons will greatly improve coverage during the Winter Atlas and be very valuable.

#### To complete a priority block in the assigned season:

1. Survey the block for at least 3 hours during the early winter and at least 3 hours during the late winter. These should be daytime surveys.
  - At least 1 hour in each period (early and late winter) should come from a timed 1-hour survey. The remaining hours can come from additional 1-hour surveys or any other traveling or stationary checklists, ideally coming from different habitat patches.
2. At least one nocturnal\* survey is preferred, but this may not be possible during winter months in all priority blocks. There is no prescribed time length for nocturnal surveys, and the time does not count toward the minimum 3 hours in each period.
3. Each principal atlaser or other person completing a winter priority block in the assigned season is responsible for tracking their effort for the block and should confirm with the County Coordinator once the block has been completed.

\*The winter survey season is a prime time to survey for owls after dark, especially Great Horned Owls and Barred Owls, which are both breeding during the winter. **Nocturnal checklists in eBird must START at least 20 minutes after sunset or at least 40 minutes before sunrise.** Find your local sunset and sunrise times at [www.suncalc.org](http://www.suncalc.org). If you do a nocturnal survey but don't detect any birds, you should still submit this checklist (with no species reported) to count toward effort in the block. It is helpful to add a note in the comments indicating that no species were detected to indicate that the checklist was

not submitted in error. Find a guide to owl surveys [here](#). This document is geared toward surveying for nocturnal birds during their breeding seasons, but the general guidelines and owl playback protocol apply whether the target species are breeding or not.

## SURVEYING NON-PRIORITY BLOCKS

Although non-priority blocks do not have specific criteria for completion, any and all data collected for the Winter Atlas in these blocks is still valuable. This can include:

- 1-hour surveys and other [traveling](#) checklists
- [Stationary](#) checklists – Including counting birds at bird feeders, which is a great activity for days when the weather keeps you inside!
- [Incidental](#) checklists – Observations made while doing something other than birding, such as while driving. These records can be especially important if you observe an uncommon winter species or a species that has not been recorded yet for the block during the Winter Atlas.

Though not required, principal atlasers of non-priority blocks are encouraged to conduct two or more 1-hour surveys (one in early winter, one in late winter) in their blocks during any of the five winter seasons.

## WATER BODY SURVEYS

Supplemental water body surveys are an important component of the Winter Atlas because waterbirds are highly mobile and can be difficult to accurately count. Surveying water bodies for the Atlas may require a slightly different approach than general birding. The goal is to produce a single count of the waterbirds using the habitat at the time of the survey. Some water bodies are not fully accessible or are too large to fully survey; in these cases, the goal is to get a minimum count of birds in the surveyable parts of the water body. Surveying water bodies multiple times during the winter season, when possible, will help us understand how the use of these habitats changes over the course of the winter. These surveys will contribute to our winter block species lists, while also producing data that can be analyzed at a larger scale to inform our understanding of how waterfowl and other waterbirds are using habitats and moving across the state during winter months.

### SURVEY PROTOCOL:

1. **Where to survey?** Identify suitable lakes and wetlands that are accessible to survey. It's ok if the entire water body is not visible or accessible to survey, but do try to survey the same area(s) of the water body each time a survey is repeated.
2. **When to survey?** When possible, survey each water body two or more times each season: at least once each in early winter (Dec 1 – Jan 15) and late winter (Jan 16 – Feb 28). If only two surveys are done, they should be at least two weeks apart. Where water bodies are known to freeze annually, try to survey early in the season before freezing.

3. **Who should survey?** Smaller water bodies can be surveyed by a single observer. Be careful to not double count birds seen from multiple locations. Larger water bodies, especially those that cover multiple Atlas blocks, should be surveyed by multiple observers simultaneously counting birds from different vantage points. Observers should be aware of boundaries and only count birds within their assigned block(s) to ensure that birds are not double counted.
4. **How to survey?** Although the focus of the survey is on waterbirds, count all birds observed during the survey. There's no fixed length of time to survey – simply spend the amount of time it takes to count birds in all accessible parts of the water body.
5. **How to record data?** Each independent observer surveying a water body should create an eBird checklist for each block surveyed in. If multiple independent observers survey a water body together, each observer should create one or more eBird checklists, depending on if they are surveying across more than one block.
6. **Multiple checklists?** When more than one checklist is used to survey a water body, the County Coordinator or another organizer should combine the checklists into an eBird [Trip Report](#), which will create a tally of all birds counted during the survey.
  - Set the Trip Report to the date of the survey and set the visibility to 'public.'
  - Invite all participants in the survey to join the Trip Report. Each participant should double check that only water body surveys end up in the Trip Report (i.e., if you bird somewhere else on the same day, make sure that those checklists are unselected from the trip report).
  - Trip Reports can be created before or after the survey date (don't panic if you forget to create it ahead of time!)
7. **Is there ice cover?** In checklist notes or the Trip Report summary, record your best estimate of the percent of the waterbody that is covered by ice.
8. **Use the following convention to name single checklists or Trip Reports (whichever has the full tally for the water body):** "PBA3 water survey – Location"; for example, "PBA3 water survey - Pymatuning." Email Trip Report links to [pabirdatlas@hawkmountain.org](mailto:pabirdatlas@hawkmountain.org).

## WINTER BREEDING SPECIES

Most winter atlasing will not require using [breeding codes](#), but breeding seasons of 12 species do overlap the winter survey season. (Find the list of winter breeding species in an abridged version of the Breeding Guidelines Chart in [Appendix B](#).) For these species, any breeding codes may be used during 'B' (breeding) weeks, whereas only probable and confirmed codes should be used during 'E' (either migrating or breeding) weeks. Remember that any species displaying confirmed breeding behavior, such as a chickadee carrying nesting material or a Canada Goose observed on a nest, should be given the appropriate code regardless of which week they are in on the chart!

During the breeding season, we ask birders to keep eBird checklists to a traveling distance of about one mile or less to improve the spatial precision of their breeding observations. This precision is crucial

for linking birds with their breeding habitats in data analyses. Although this level of detail is generally not quite as important during the winter atlas, keep this in mind while you are winter atlas-ing in case you do encounter birds exhibiting breeding behaviors. You may choose to continue keeping checklists shorter during winter surveys, especially if you are targeting owls, Bald Eagles, or any other species that you will potentially find breeding during the winter. Conversely, if you are recording checklists that span greater distances over the winter and you encounter a breeding behavior, you may opt to report it via an Incidental checklist.

## FIELD SAFETY

Winter conditions can exacerbate slight mishaps into much more dangerous situations. Enjoy winter atlas-ing but take appropriate cautions before heading out birding and always put your safety first.

- Let someone know of your birding plans and when you plan to return.
- Check the weather forecast before your outing.
- Keep extra clothing, food, water, and a first aid kit in your vehicle. Always bring more water than you think you'll need.
- The Winter Atlas overlaps multiple [hunting seasons](#). Be safe and respectful by wearing blaze orange while birding on public or other huntable lands.
- Drive cautiously. Many roads, including most PA State Forest roads, don't receive winter maintenance. As soon as the first precipitation and freezing temperatures occur in the winter, these roads can quickly become unsafe, and they often remain undriveable for much longer than you think.
- Don't assume your cell phone will work in all locations. Download and print maps, directions, and emergency phone numbers.

## WINTER ATLAS CODE OF ETHICS

**Practice and promote respectful, enjoyable, and thoughtful birding!**

Based on the [American Birding Association's Code of Birding Ethics](#). Also see [Audubon's Guide to Ethical Bird Photography](#) for further guidance for birders.

### 1. Respect and promote birds and their environment.

- a. Avoid stressing birds or exposing them to danger. **Flushing birds from their habitat or roosts in winter causes them to use precious energy reserves and can be detrimental to their health and survival.**
- b. Limit the use of recordings and other audio methods of attracting birds, particularly in heavily birded areas and with rare, threatened, or endangered species. Always exercise caution and restraint when photographing, recording, or otherwise approaching birds.
- c. Minimize habitat disturbance. When possible, consider the benefits of staying on trails, preserving snags, and similar practices. Follow the 7 [leave-no-trace](#) principles.

**2. Respect and promote the birding community and its individual members.**

- a. Bird and report your data with honesty and integrity.
- b. Respect the interests, rights, and skill levels of fellow birders, as well as people participating in other outdoor activities.
- c. Share your bird observations freely, except for sensitive species, provided such reporting would not violate other sections of this Code.
- d. Promote these values among your birding peers.

**3. Respect and promote the law and the rights of others.**

- a. Never enter private property without the landowner's permission. Respect the interests of others and interact positively with people living in the area where you are birding.
- b. Follow all laws, rules, and regulations governing activities at your birding locations.

**4. Responding to inappropriate behavior:**

- a. **Speak to instances of perceived unethical birding behavior with sensitivity and respect, in a positive manner, keeping in mind that perspectives vary. Take opportunities to teach by example and to introduce more people to this Code.**
- b. **If a questionable behavior persists or cannot be resolved, report your concern to your County Coordinator, or if necessary, to the appropriate Regional Coordinator or Project Director.**

## USE OF MERLIN APP

The use of Cornell Lab of Ornithology's Merlin app (<https://merlin.allaboutbirds.org/>) can be a useful birding tool. However, with use of Merlin comes an increased risk of birders submitting incorrect identifications. Remember, Merlin does not identify species, but instead offers suggestions based on artificial intelligence. Please use the following guidelines if using Merlin:

- **Always rely first on your own eyes and ears.** When Merlin suggests a species based on audio, try to find the bird and identify it visually. Consider if the species makes sense for the habitat and time of year. You must confirm identifications independently to submit them to the Atlas!
- **Set your location.** Merlin works best with an accurate location.
- **If possible, upload your Merlin audio recording to your eBird checklist.** Instructions can be found [here](#).
- If you are unable to submit a quality audio recording, please **describe how you made the identification in the species comment box**. Describe the sound you heard (high-pitched, squeaky, two notes, similar to Red-eyed Vireo but raspier, etc.). If you saw the bird making the sound, describe what it looked like and its behavior. "Identified by Merlin" is not a sufficient response here – we want to know how YOU identified the bird!
- Rare or unusual species will require supporting documentation to be included in the Atlas data.



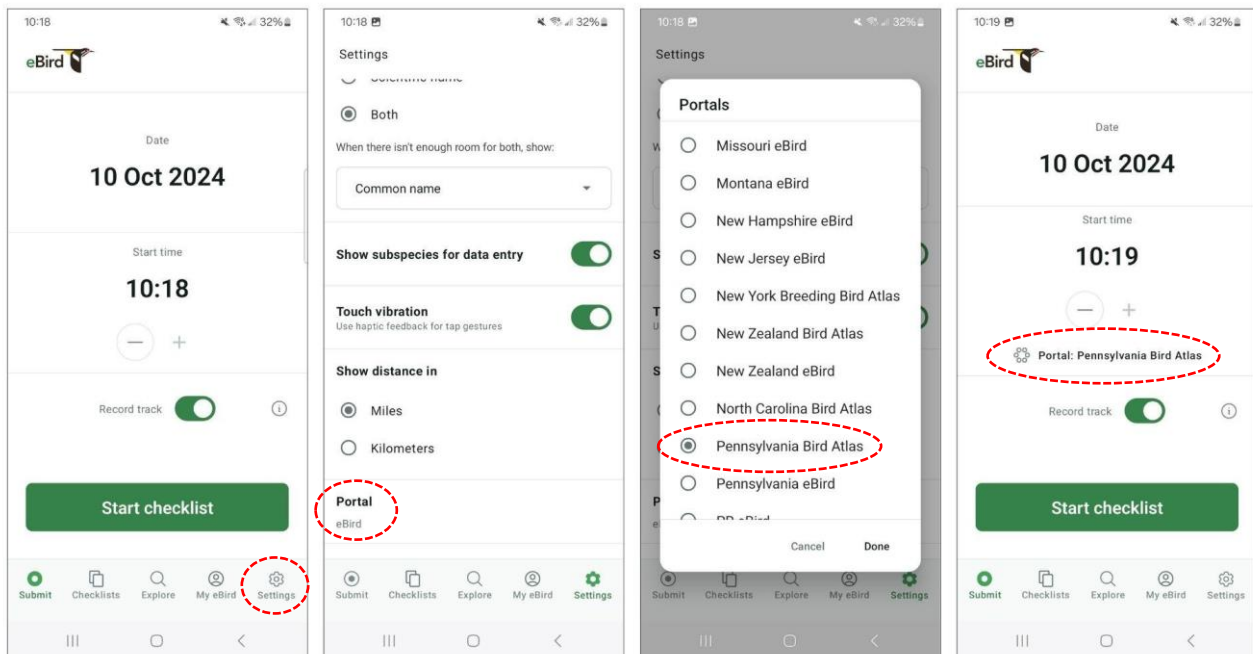
## APPENDIX A: EBIRD PORTAL INSTRUCTIONS

A portal is a subset of the entire eBird database that supports a specific project, in this case our Atlas. Records entered into eBird via a portal also enter into core eBird, so all your observations and checklists for the Atlas will also appear on the main eBird website! Using the Pennsylvania Bird Atlas portal:

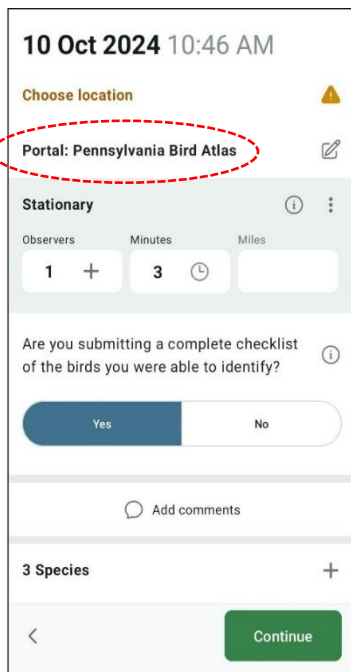
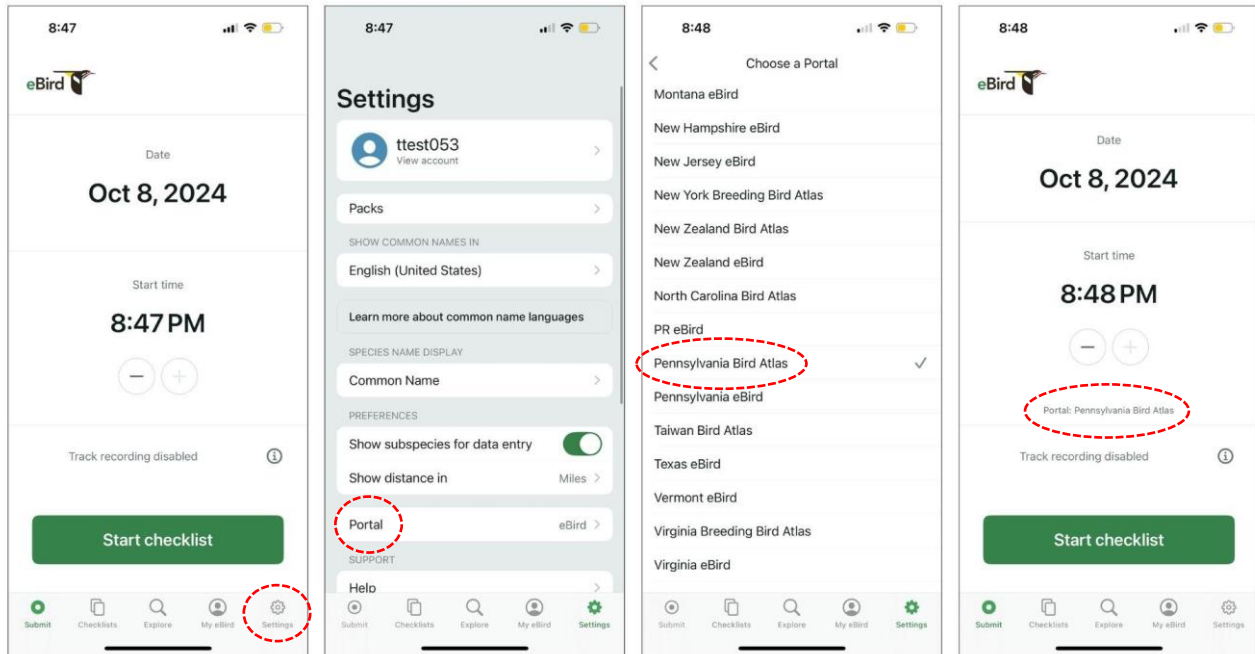
1. Allows us to organize, visualize, and use data more quickly and easily.
2. Indicates that you understand the Atlas concepts, including the use of breeding codes and block boundaries.

Once you've created an account and installed the eBird app on your mobile device, find Settings and change the portal to Pennsylvania Bird Atlas. You may remain in this portal so long as you are birding in Pennsylvania and not crossing block boundaries during individual checklists.

### Android



ios



eBird offers a convenient option for removing an individual checklist from the Atlas portal while you are submitting via your mobile device, rather than having to change out of the portal entirely. When you are about to submit the checklist, tap the portal line near the top of the screen and select eBird or another portal from the menu that opens. You may choose to remove an individual checklist from the Atlas portal if you did not observe any breeding behaviors, if you have ventured outside of Pennsylvania, or if you have not been following Atlas protocols.



## APPENDIX B: ABRIDGED BREEDING GUIDELINES CHART

### Pennsylvania Breeding Guidelines Chart

This chart indicates the time of year when a species is breeding in PA.

**\*Priority species.** Additional documentation is requested. See handbook.

To learn more about the atlas and submit data, visit: [ebird.org/atlaspa](http://ebird.org/atlaspa)

### Season Key:

**N** Non-breeding season

**M** Migration

**E** Either migration or breeding

**B** Breeding season only

### Acceptable Breeding Codes:

CONFIRMED only

CONFIRMED only

PROBABLE & CONFIRMED

ALL codes are OK

### Date Key:

**1** =1st-7th

**2** =8th-14th

**3** =15th-21st

**4** =22nd-end of month

	Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct				Nov				Dec																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Common Name	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Rock Pigeon	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
American Goshawk*	N	N	N	E	E	E	E	E	E	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	B	B	B	B	E	E	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	N	N	N	N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Bald Eagle*	N	N	N	E	E	E	E	E	E	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	B	B	B	B	E	E	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	N	N	N	N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Red-tailed Hawk	N	N	N	N	E	E	E	E	E	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	B	B	B	B	E	E	E	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	N	N	N	N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Barn Owl*	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	E	E	E	E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Great Horned Owl	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	E	E	E	E	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

## APPENDIX C: GUIDANCE FOR ATLASING WHILE PARTICIPATING IN OTHER SURVEYS

Many Pennsylvania birders participate in multiple community science bird projects. If you are one of these birders, there's a good chance you already share data from these projects to eBird as well. **As long as you collect your data via the Pennsylvania Bird Atlas portal in eBird, it is relatively simple to contribute data to most of these projects at the same time.**

### Audubon Christmas Bird Counts (CBC)

- Enter your [CBC](#) count data via eBird, and ensure that you are using the portal and starting a new checklist any time you move to a different block.
- You may want to create an eBird [Trip Report](#) to capture your CBC checklists. This will produce a summary of the species and numbers observed, making it easy to share your data with your CBC compiler.

### Winter Raptor Surveys (WRS)

- Study your [WRS](#) route to determine where it will cross block boundaries. Be prepared to start new checklists as you enter new blocks, and again, make sure you are using the portal. If using this method, you may again want to create an eBird Trip Report.
- If your route crosses many blocks and it is difficult to keep track of where you need to start new checklists, you may opt to submit Incidental checklists instead.

### Cornell's Great Backyard Bird Count (GBBC)

- Data for the [GBBC](#) are already collected in eBird, so you will automatically contribute to both the GBBC and the PBA3 as long as you are using the portal.

### Cornell's Project FeederWatch

- Project FeederWatch observations are collected by the Cornell Lab of Ornithology but through a different platform than eBird. Protocols for the two projects differ enough that FeederWatch observations will not directly translate to eBird checklists. If you want to contribute FeederWatch data to the PBA3, you'll need separately track your observations in accordance with [eBird best practices](#) and submit checklists to the PA Bird Atlas eBird portal in addition to submitting your data to Project FeederWatch. Keep in mind that each eBird checklist must correspond with a single calendar date.