

# Kirtland's Warbler eBird Migration Blitz: Survey Protocol

PLEASE NOTE: As part of our protocol, we will be asking you to broadcast Kirtland's Warbler vocalizations. We have received special permission from the United States Fish and Wildlife Service to conduct this type of activity. Kirtland's Warblers, like all migratory birds, are under severe energetic demands during migration. The overuse of playback may prevent individuals from carrying out important behaviors, such as resting and feeding. The limited use of playback for our survey is unlikely to cause problems, but repeated and prolonged playback could be harmful to this Endangered species. Playback of any kind, without specific authorization from the USFWS, remains prohibited on Kirtland's Warbler breeding grounds in Michigan and Wisconsin. Please respect the special opportunity to join forces in protecting this unique species by following survey protocols closely and limiting your use of Kirtland's Warbler playback exclusively to protocol surveys on this migration blitz.

## WHERE IS THE BLITZ TAKING PLACE?

We are focusing the 2017 Kirtland's Warbler eBird migration blitz on three states that provide critical stopover habitat: Florida, Georgia, and Ohio. We chose these states, and the focal regions of the locations for this blitz, based on our results from geolocator tracking studies (see [this paper here](#)) and past observations from eBird. Currently, we do not know much about the habitat types used by Kirtland's Warblers during migration. Our expectation is that they use young, short-stature forests with structure similar to their breeding and wintering habitats. We are focusing our sampling efforts on scrub habitats, secondary-growth forests, and regenerating coniferous forests, but Kirtland's Warblers could be found in almost any habitat!

FLORIDA: After spending the winter in The Bahamas, Kirtland's Warblers will make their first landfall in Florida. In Florida, we will focus on scrub habitats, and regenerating stands of coniferous forests. Individuals have also been observed along the coast, but we're hoping to get a better understanding of the inland habitats they use while migrating through Florida.

GEORGIA: We have the least amount of information about migrating Kirtland's Warbler from Georgia. Much like Florida, we expect Kirtland's Warblers to use scrub habitats, and recently cut coniferous forests and other secondary growth.

OHIO: The state of Ohio is one of the last legs of the trips for Kirtland’s Warblers to make it back to their breeding grounds in Michigan and Wisconsin. The habitats that we are focusing our survey efforts here are coastal dune areas, scrub habitats and various types of secondary growth.

OTHER STATES: Kirtland's Warblers have been documented on spring migration in a number of other states, including Alabama, South Carolina, North Carolina, Tennessee, Kentucky, and Virginia, among others. If surveyors wish to try the protocol in those areas feel free to do so. Follow the temporal window for the nearest state. You will have to select the sites yourself: we recommend scrub habitats and ridgetop areas. Since our permissions to do audio lures are from the U.S. government, we cannot extend this protocol to Canada.

#### WHEN IS THE BLITZ?

We have chosen time windows based on the date range for when we detect birds with geolocators in each state, as well as the peak of timing for observations in eBird during migration.

State	Start Date	End Date
Florida	Friday, April 14th	Sunday, May 14th
Georgia	Friday, April 21st	Sunday, May 21st
Ohio	Friday, May 5th	Sunday, June 4th

#### WHERE SHOULD I GO?

We have chosen our survey points based on the location of critical habitats we consider are important for migrating Kirtland’s Warblers. When we contact you by email we'll include a link to the points for each state, which will also be set up as eBird hotspots so that you can access them from [eBird Mobile](#). The points are named using the code for the species name, the state, and the number of the sampling location. For example, point KIWA-Survey-FL-015 represents a survey point in Florida. If you would like to add your own survey points, please name them using the same format (KIWA-Survey-STATE), but include a location name instead of a number for the point. For example KIWA-Survey-FL-Twelvemile Hammock.

## Selecting your survey points

Please use the maps we send to find your sampling points within a general area you will visit for your surveys. On average, you will be able to complete ~3 points in an hour, so make sure to plan accordingly. It is always best to choose a group of points to be able to move easily from one point to another and find additional points. The points are labeled ~25 meters from the road. When possible, walk anywhere from 25-100 meters away from the road in the direction of the point and towards suitable habitat (low scrub, recently cleared forests- see pictures below). And remember, you can always add your own points!





What if the survey point does not have the right habitat, and you cannot do the survey?

The survey points were selected from aerial imagery and have not been field tested, so you may be the first surveyor to actually visit a point. If a point does not look like it is placed on or near suitable habitat, or you could not reach or visit the point, please move on to another point. To let us know any issues related to the point, please make a note of the point name, and why you could not visit the point or conduct the point count, add any comments to the [Google Sheet](#) on the second tab named "Locations."

## WHAT IS THE SURVEY PROTOCOL?

### Audio Playback Description

During your survey you will be asked to play a single track that contains recorded Kirtland's Warbler vocalizations, followed by a track of an Eastern Screech-Owl being mobbed by chickadees. If playing through your phone, you'll want to do so at maximum volume. We'll email a link to all those who sign up to download the necessary audio file for the playback.

If you choose to use a small portable speaker ([JBL Clip](#) is one good Bluetooth-enabled option), use a volume that is loud enough to be heard for a good distance, but not so loud that you can't hear birds respond or that distorts the quality of the recording. Please use only the recordings we have provided for the playback portion of the survey. Avoid doing the playback surveys if it is raining, or if winds are above 10mph.

### Playback Instructions

The 10-minute survey will consist of five timed segments that combine passive and playback surveys. Make sure to keep a complete checklist with counts for all species observed during the 10-minute survey. If you observe a Kirtland's Warbler during any of the time segments, you can skip the remaining components of the survey. For example, if you observe an individual during the initial passive survey (0-1 minutes), you do not have to continue with your count, and can instead move on to another point!

**0-1 mins** = Remain silent, look and listen in all directions for all species of birds. Note start time.

**1-9 mins** = Play the nine minute audio file provided, look and listen for all species of birds, and pause the recording when instructed. The recording consists of two sections: 1) Two minutes of mixed Kirtland's Warbler songs, chips, and silence followed one minute of silence; 2) Scolding chickadee/Eastern Screech-Owl mix for 4:30 that is designed to attract a variety of passerines, followed by with 30 seconds of Kirtland's Warbler vocalizations and then one minute of silence. (The final minute on the audio file is silent.)

**9-10 mins** = After the 30 seconds of Kirtland's Warbler songs and calls, spend the final minute silently watching for birds. This period has a minute of silence on the audio file as well so that you do not need to pause the audio. Note the end time, and submit a complete checklist for the 10-minute count.

What if you detect a Kirtland's Warbler?

If you detect a Kirtland's Warbler, we would like for you to record some additional information to help improve our understanding of the stopover ecology of migrating Kirtland's Warblers.

Using the eBird app or the website:

- Enter how many individuals were detected
- Note during what period the individual(s) was observed (i.e., before, during, or after Kirtland's or owl playback)
- If you observed a flyover bird (not interacting with the habitat – see <http://help.ebird.org/customer/portal/articles/1736559> for more information), choose the following option under "Breeding Code":
  - F: Flyover
- Take and upload in your checklist a close-up picture of the bird (if possible). Even a smartphone picture may help document the identification.
- If the bird is vocalizing (e.g., chip notes or songs) please make an audio recording and upload that to your checklist. Most smartphones can use a Voice Memo to make decent field recordings of bird calls.
- If you cannot get photos or audio recordings, please add details to describe the plumage of the bird, indicate the Age and Sex (if known), and describe the bird's behavior.
- Please make note of any color bands the bird may have on its legs
- Take a picture of the habitat the bird was in
- In the notes under your Kirtland's Warbler entry, include the following:
  - height (in feet) of bird off of the ground
  - average height (in feet) of vegetation in the habitat that the bird is
  - notes about the habitat type, vegetation, response to playback, etc.
  - any other interesting observations you made!

What if you don't detect a Kirtland's Warbler?

Don't be discouraged! Not detecting a Kirtland's Warbler during the survey still is very valuable information! This is also an incredibly rare species, and it will be difficult to find, but hopefully you were able to record other interesting bird species during your survey.

It is always best to have multiple points identified from our maps, so you can survey several points during one trip, and increase your chances of observing a Kirtland's Warbler. If your first survey was unsuccessful, go to the next one! The more points you survey, the more information we're able to obtain for our study. Also, please try to visit spots that have had few visits, or those that have never been visited before.

And don't forget: every survey you complete and submit via eBird will give a chance to win a beautiful, 10x15 fotoflöt print of this Kirtland's Warbler photo below:

