



srearl docs: update birding protocol to always estimate bird count

History

2 contributors



# \*\* Core Birding Point Count Protocol\*\*

Revised 2022-01-13

## Point Counts

A point count consists of one person standing in a specific location for a fixed length of time at a specific time of day, counting all birds seen and/or heard within a specific distance ("fixed radius") or as far as the eye can see ("open radius").

- CAP LTER uses 15-minute observation periods.
- Counts are completed within 4 hours of local sunrise (refer to the provided table for sunrise times).
- Counts are done using the "open radius" method.

## Additional Observers

The primary observer may be accompanied to the point by an additional observer when required for safety reasons; however, *only the observations of the primary observer should be recorded on the datasheet*. To avoid any bias that would invalidate the data collected, the secondary observer should not verbalize, point out birds, or give any non-verbal cues to the primary observer (e.g., looking at a bird with binoculars is a non-verbal cue). The secondary observer should position him/herself to minimize disturbance to birds as well as to the primary observer. Ideally, the secondary observer will stand near the primary observer (so the secondary observer does not prevent birds from coming near the primary observer). The observer should sit down or stand so that he/she does not obstruct the primary observer's views.

- Please note in the "*Site Condition*" section of the datasheet if an additional observer was present during the count.
- If the second observer sees a species that the primary observer did not see, it may be noted in the "Notable additional bird species" section of the datasheet.

## Count Conditions

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- The first point count should be started *no earlier than local sunrise*. The final point count should be finished *no later than 4 hours past local sunrise*.
- Do not conduct point counts in steady or heavy rain, though it is acceptable to conduct counts in light, intermittent drizzle (be sure to make note of this in the "Precipitation" section of the datasheet). It is recommended to use Rite in the Rain paper during drizzle conditions.
- Do not conduct point counts in steady winds above 20pmh (visual cue = branches of a moderate size move, small trees with leaves begin to sway). Make a note of the wind condition in the "Wind" section of the datasheet.
- In the "Disturbance" section of the datasheet, note "yes" or "no" if any type of disturbance occurred during the count, and describe the disturbance under the "Site Condition" section of the datasheet. A disturbance may involve disturbing you, the observer (e.g., a homeowner came and talked to you), or disturbing the birds (e.g., a cat chasing birds, garbage truck making lots of noise and flushing birds,

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- If you, the observer, are disturbed during the 15-minute count period for any reason, make a note of the interruption in the "Site Condition" section of the datasheet. Time should be paused for the duration of the interruption and resumed once the interruption is terminated. Redo the count entirely if you are unsure of the time you were disrupted for. Note that someone passing by and saying "hi" is not considered a disturbance; however, if someone comes to talk with you and it turns into a conversation, it is considered a disturbance and time should be paused then resumed once the conversation is over.
- Make note of the overall noise condition for the whole count period in the "Noise" section of the datasheet.

## Approaching the Point and Filling Top of Datasheet

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- Park your vehicle at >40m from the bird point.
- Approach the plot as quietly as possible to minimize disturbance to the birds present.
- At the bottom of your datasheet, make note of any bird species flushed by your approach in case they do not return during the count, as well as any bird species seen or heard before and/or after the count. After your count, if these species have not been recorded during the 15 minute survey, record these species in the "Notable additional bird species" section. Bird species recorded under this section are species NOT observed during the count but observed while at the site.
- Stand quietly at the bird point for 5 minutes before starting the count. This is essential to allow any disturbance caused by the approach to settle down.
- Use this 5-minute settle-down time to fill out the information at the top of the datasheet, set up the noise meter, and find your distance brackets (5m, 10m, 20m, 40m) with a range finder.
- Record in the "Site condition" section of the datasheet any unusual circumstances around the plot, such as construction activity or flooding, or anything you noticed that has changed since your last visit. Also note presence of water (or absence of it) at sites where water is typically present such as at riparian sites or absent such as desert sites.

- Record "Site Obstruction" as the percent of the horizon view that is blocked within a 20m radius of the point. The ground (i.e., a slope, not a rock outcropping or dirt mound) should not be recorded as an obstruction as your line of sight should follow the topography. Determine whether you could bird beyond the feature if it was not there. If you could, then record it as an obstruction. Record this every visit, even if it does not appear to have changed since your last visit. Record in 5% increments.

## Conducting the Count

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### *Species*

- Use the standardized four-letter alphabetic ("alpha") codes for the English bird names from [The Institute for Bird Populations](#). If unknown, refer to the bird code list provided, or write down the complete common name of the bird and look up the code when reviewing your datasheet.
- If the species cannot be positively identified, use the closest taxonomic affiliation from the provided bird code list. It is better to record something as "unknown" rather than guess. Make sure you look at all the "unidentified" code options listed on the list to pick the most appropriate code.
- NOTE: For the Yellow-rumped Warbler (*Setophaga coronata*), we use the code YRWA. If the observer can visually identify the sub-species, we use the appropriate code. Audubon's Warbler AUWA, and Myrtle Warbler (MYWA).

### *Number of Individuals and Distance*

- A single individual bird will be recorded per line.
- Only record a number greater than one on a single line if birds of the same species are observed very close together, such as a flock or family group.
- If a mixed flock is observed, put each species on a separate line and note in the "Notes" column that they were part of a mixed flock.
- Write the number of individuals observed in the appropriate distance columns.
- Do not count the young in a nest as individuals. If the nest is linked to an adult individual in the count, you can record the young in nest in the notes for that line. Likewise, do not count the dependent young of precocial species (e.g. ducks and quail). Only count adults and independent juveniles. Dependent young can be recorded in the notes.

- If a bird moves during the count, record only the distance at which it was first observed.
- Pay close attention to bird movement to avoid counting birds twice.
- Record estimated numbers for flock sizes that are difficult to count accurately. Write, for example, "15" in the appropriate Distance column and then record a flock size estimate in the Notes column (e.g., 15-25).
- Hummingbirds should be recorded in the distance column if they are using the habitat (such as when they are observed foraging) even if they are not perched. However, if you see them flying quickly through the point count site, they should be recorded as FT (see below).
- Swallows, martins, and swifts are aerial birds that forage on the wing. If the birds appear to be foraging during the count, they should be counted and recorded in an appropriate distance bin. The observer should drop an imaginary "plumb bob" from the bird (or center of the flock) to the ground. The perpendicular distance can be measured from observer to the point the "plumb bob" touches the ground. Remember, record the distance at which the bird(s) was first observed. Birds that are just passing through, are recorded as a FT (see below).
- The number of birds, whether seen, heard, or both, should always be estimated so be sure that you enter a count on each line of the datasheet.

### ***Fly-Through (FT)***

- If birds are seen flying through the count area and not observed taking off or landing, record them in the "FT" column only, not in the distance columns.
- See notes above regarding when to record hummingbirds, swallows, martins and swifts as FTs.
- High-flying birds can be noted as FTs if they are "aerial screeners" using the habitat, such as a hawk circling 30m overhead looking for food. High-flying birds moving through the area can also be recorded as FTs, whether or not they are using the habitat; examples are cormorants flying high along a river corridor, a heron flying high over a pond, or geese flying through the area. If possible, estimate the height and make a note if the bird is flying higher than the tallest structure.

### ***Seen (S) and Heard (H) Columns***

- Record with a check mark whether the bird was identified from sight (S) or sound (H), or both. Use caution with similar-sounding birds like juncos and chipping sparrows, or with mimics and imitators, like mockingbirds and starlings.

## Direction

- Record the direction the bird was **first** observed or heard. This may mean recording a bird heard to the south (S) even though you were facing northwest (NW) at the time.
- Use the cardinal and mid-cardinal points of the compass (N, NE, E, SE, S, SW, W, NW) in this column.

## After the Count

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- After the count is completed and before leaving the site, review your datasheet to ensure you have filled it correctly. Make sure you have a count and distance for all observations and that the top part of your datasheet is complete.
- Record under "Notable additional bird species" section **ONLY BIRDS USING THE HABITAT**. This section is to record bird species seen using the habitat, but not recorded during the count.
- Record under "Non-bird/exotic bird species present" any non-bird species observed at the site or fresh signs of non-bird species (i.e., coyote scat) at the site. Also record "pet" birds (birds in people's yards or escapees) such as roosters, peacocks, and parrots under the "Non-bird/exotic bird species present" section.

## Additional Instructions

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- *Wear drab clothing and avoid bold patterns* that might scare away some birds, or attract other ones.
- Before and during the count, *do not "pish", "squeak", or use any other methods to encourage birds to show themselves*. This would artificially inflate the bird densities recorded and invalidate the data collected. If you want to see a bird you had difficulty identifying, you can "pish" only **after** the count is completed.
- Use the 15-minute count period effectively; do not spend precious time trying to identify a bird that is far enough away so that a spotting scope would be necessary to identify the species.

- Do not start or continue a count if personal safety is threatened in any way. Notify CAP LTER Site Manager of any threat to safety encountered at a research plot.
- If the full 15-minute point count survey cannot be completed entirely for any reasons (e.g., weather, time limits, safety, etc.), the count must be re-done entirely and completed at another time within the season survey window.

## Data and Communication

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- To minimize errors, please *review and complete your data sheets within a day after the survey*, preferably the day of the survey. Make sure you did not leave any blank spaces, review all the alpha codes (verify that your codes are the same as the one provided in the bird list code, or write the FULL common name), complete your notes and make them concise, and perform necessary research (listen to calls and/or look at different field guides) to fill in uncertain identification(s) when possible.
- The datasheets must be **clear and easy to read** to facilitate data entry and prevent errors. If necessary, re-write your codes to make them very clear to read and make sure each letter is clearly written.
- All completed datasheets (diligently reviewed for bird code errors) must be returned to ASU **within one week** of the last survey completed during that season.
- Report any problems (i.e., site access issues, road closures, safety concerns (e.g., stray dogs, transients, etc.), interesting occurrences, scheduling issues, etc.) to the group by email, using the email string started at the beginning of the season and "replying all". Be sure to let the CAP Site Manager know if you were not able to survey a site.