

Christmas Bird Count Compiler's Manual

This manual contains the instructions on how to use the
Christmas Bird Count protocol

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Compiler's Web page: www.christmasbirdcount.org/compilers

Main Christmas Bird Count website: www.christmasbirdcount.org

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The Christmas Bird Count, started by Frank Chapman along with 26 other conservationists, was a way of promoting conservation by counting, rather than hunting, birds on Christmas Day of 1900. Now in its second century, The CBC has evolved into far more than just another holiday tradition. The CBC, to quote Geoff LeBaron, the CBC Director, “increasingly accepted by ornithologists and conservationists alike as the best, if not only, tool available for assessing the long-term trends in the early winter bird populations of North America”. With the cumulative historical CBC data now on-line, there are many thousands of individual counts from December 25, 1900 to the present available for perusal and scientific research.

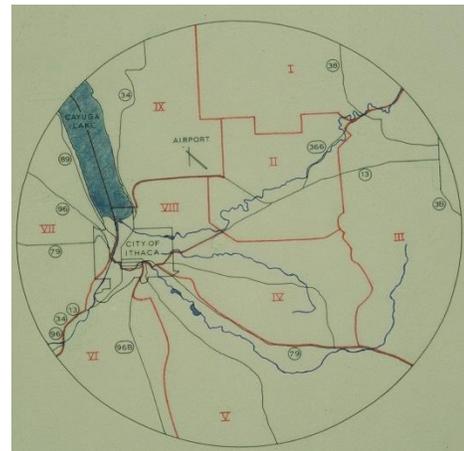
Information about how the CBC data have been used in research, and a bibliography of publications produced with CBC data, are available on the CBC website at www.christmasbirdcount.org

[Compiler’s webpage with answers to your questions, the full count manual, printable references, guidance, and more can be found here: www.christmasbirdcount.org/compilers](http://www.christmasbirdcount.org/compilers)

[Please review the full compilers webpage first to see if you can find the answer to your question there.](#)

THE BASICS

- *Circle:* A count must be entirely within a 15-mile (24 kilometer) diameter circle. The location of the circles cannot overlap any other circles, and the circle cannot be moved once established as a count circle. Any exceptions must be discussed with the Director of the Christmas Bird Count.
- *Center Point:* The same center point should be used each year as the circle cannot be moved once established
- *Circle Overlap:* Circles may not overlap or abut neighboring counts.
- *Count Period:* Your count must be conducted within the official count period, 14 December through 5 January, inclusive dates. Your specific date can be any within that range, and it is best to be consistent each year about the date selected.
- *Count Day:* Your count must be conducted only within one 24-hour calendar day (midnight to midnight)
- *Field coverage within circle:* It is important to confirm in advance of each count day that you have permission from appropriate authorities to access any areas you wish to bird.
- *Birds outside the circle* seen by an observer standing in the circle should not be included in your census data.



- *Count Hours & Observers:* Minimums of full daylight hours (at least 8 with exception of short daylight areas or pelagic counts) in field with 10 observers are preferred for best annual coverage.
- *ID by Voice:* Birds may be identified by voice, but specimens or tracks are *cw* (count week) birds (unless you can document the fact that the specimen/track wasn't present in the area earlier than the count day).
- *Linear pelagic CBCs* are allowed, if the boat follows the same transect or covers the same area each season.
- *Count Week:* is defined as from 3 days before to 3 days after your official count day. Birds seen during this count week period but NOT seen on count day can be recorded in your checklist as "present" and marked in the online checklist with a "cw". Numbers of count week birds are NOT recorded. More details about count week can be found here: <http://birds.audubon.org/faq/compilers#t1406n5608>
- Audubon requests that each CBC circle maintain one point of contact for emailing of count materials, receipt of update emails on the CBC and data entry of the count data. This "primary" circle contact needs to provide name, address, email and phone numbers in their online account on the CBC website upon creation of the circle. An email address is required for this "primary" contact. This one "primary" compiler may also designate other "secondary" compilers to receive emails.



[ROLE OF THE COMPILER AND WHAT TO CONVEY TO PARTICIPANTS](#)

(A very useful and thorough discussion about planning for your count can be found by reading *The Art of the Christmas Bird Count* by Alan Contreras at <http://home.pacifier.com/~mpatters/cbc/acbc.html>)

Organizing/recruiting participants including feeder-watchers: Remind previous participants and start recruiting new ones in early November. The CBC website contains general information to guide new potential participations to find out what CBC circles are near them, using information in the database provided by compilers about count dates and plans. This is generally available online in mid-November of each year.

What new CBC volunteers need to know: Compilers should reiterate to past participants and communicate or email out to new participants a list of reminders such how much time they may be spending in the field, what to wear, the need to bring their own binoculars, the need for food and water/soda, sturdy footwear, rules of counting using the CBC protocol covered in this manual, where they should meet up, etc. Please notify your participants what to do in case of inclement weather. Please let your participants know that anyone involved in the CBC can submit photos taken during a CBC into the online CBC photo gallery for display on the website. To do this they should go to the photo upload tool available in the menu of items on the CBC web page at www.christmasbirdcount.org. Photos must be submitted by the original photographer so that terms of use can be obtained.

Scheduling count: It's best to schedule your count during the same weekend/day of the count period annually. This helps observers plan their activities well in advance, and enhances the value of your data. A discussion about why the count dates are Dec 14-Jan 5 can be found here: <http://birds.audubon.org/faq/compiler#t1406n5673>

Participant consistency: It's best to use the same people in the same areas each season. That way they can better learn their area and the birds therein. New participants that join the count can be paired with experienced birders.

Designated census route: Each group (party) should run a census-style route where they cover the route in-depth counting every bird encountered. No other group should cover that area—we need to ensure that no double-counting occurs. Routes and field activities should be run the same way each year by the same people. Consistency over time is very important to the integrity of the data collected.

Counting when retracing census route: If a group needs to retrace their path along a census route, birds *should not* be recounted. However, if additional species are encountered, they should be included in the census results.

Effort: Please remind all participants that complete effort information (see below) must be reported to the compiler for all field parties. Hours spent watching must be reported separately by feeder watchers. This is very important to making the data scientifically useful.

Feeder-watchers: Feeder watchers should look for the maximum number of each species visible (or within earshot) at any one time as their maximum count. They should not just keep adding chickadees for their entire watch period. Feeder watchers also must report the number of hours spent watching their feeders.

Large roost counts: For counts where large roosts are within the circle, an observer experienced with estimating large numbers of birds should census that roost in the morning or evening. With very few exceptions, no other individuals of that species counted by other observers during the day should be included in the final tally.

Online data: Online entry of data can be accessed by the one or more people designated by the compiler to complete data entry. In most cases the data entry is done by the “primary” compiler. This compiler (or designated person of his/her choice) is responsible for entering the results of their CBC count each year, entering and maintaining the participant list, entering and maintaining the contact information about themselves and any secondary compilers, and providing any required documentation of rare birds directly to the regional editor.

Use of audio: Because the CBC is monitoring birds in the non-breeding season (and most species are not singing, at least in North America) the use of playback and attractant noises have always been permitted on the CBC, where allowed by law. With the proliferation of iPods and other hand-held devices that can readily play bird vocalizations and elicit responses from otherwise hidden birds, this use is reported to be on the rise.

If prudent use of audio broadcast has been used routinely on a CBC, those methods should be continued to maintain consistent counting data over time. If a field party or CBC elects not to use attractant measures, it's best for them not to suddenly start one year.

The use of playback on a CBC should be very judicious, and never done in a fashion that could affect the behavior of target species in any significant way.

TIMELINE AND DEADLINES FOR EACH CBC

- all counts must be run within the “Official Count Period,” which runs from 14 December through 5 January (inclusive dates) each season.
- on-line data entry should be complete by 15 February of each year. Data entry access will be closed as of February 28 each year.
- Regional Editing process should be completed by March 31 each year.

GUIDELINES FOR SCOUTING

Scouting is not a required part of the preparation of any Christmas Bird Count. However, if one goal of your group is to get the highest species total each season, pre-count scouting can make or break that effort. The early winter bird season is quite variable from year to year, and a bit of time over the week or so before your official Count date will save valuable time (and potentially frustration) for your field parties on Count day.

- *The timing on routes:* While your field parties probably always tend to follow the same route in their section of the circle each season, scouting beforehand can provide them tips about finding reclusive, crepuscular (dusk-loving), or nocturnal birds. In addition, if you learn before count day that a particular marsh or lake is completely frozen or dry (and thus not worth a visit), that could save your participants a valuable few minutes on their busy day.
- *Road conditions:* As with the Breeding Bird Survey, it's best to make a dry run through all your Count's areas prior to your CBC to ensure that no construction areas or bridge outages will hamper your participants' access to their assigned areas
- *Rarities:* Scouting before the Count day may turn up rare, out of range, or out of season species. These could well be your "best birds" during count day, and obviously you'll want to alert your field parties to their presence if any rarities are turned up.
- *Tricky identifications:* Scouting may result in the location of difficult-to-identify birds that could otherwise go unlisted if they are only seen on Count day. Sorting these species out in advance (some shorebirds, gulls, flycatchers, or sparrows for example) can ensure that observers familiar with the species assist with the identification, and will help supply the details that will probably be necessary to satisfy your CBC Regional Editor.
- *How and where to scout:* The weekend before, or during the week leading up to, your Count ideally all your routes should be pre-run. Thickets, marshes, and congregations of birds should be checked for birds of note, and any logistical difficulties uncovered, or good birds found, should be reported to your party leaders and observers. Many times some of your regular observers will be anxious to scout their areas in advance, so don't feel you have to do all the scouting on your own time.
- *Owling:* Scouting for nocturnal species prior to your Count day can be especially helpful to your observers. The CBC period is the time when many species of owls are defining their territorial boundaries, and driving your routes at dusk or dawn may uncover specific locations where owls may be quickly seen or heard by your observers on Count day.

DETAILS ON RECORDING CBC DATA FOR THE ENTIRE COUNT

A blank field form is available to compilers through the CBC circle access online. You can download and print or revise and share with participations as you wish in advance of the count day. This will help participants know in advance what data they should be submitting to the compiler.

Note that a detailed manual on how to use the data entry system can be found on the compilers webpage, along with instructional videos to help you learn data entry.

WEATHER/EFFORT

Units

Measurements can be in choice of English or metric units.

Date & Time

Count Date: Date must be Dec 14 to Jan 5 inclusive.

Start and End Times: You must specify at least one start time and one end time. If your count times are discontinuous, you can specify additional times by using additional rows.

For example: If your nighttime and daytime hours are discontinuous, give both sets.

Start time 1 and End time 1:	1:15 a.m. to 3:00 a.m.
Start time 2 and End time 2:	8:00 a.m. to 4:30 p.m.

Weather

Temperature: Indicate the minimum and maximum temperatures of the day to the nearest degree.

Wind Direction: If there is little to no wind, select Calm for Wind Direction. In case of fluctuating wind patterns, select Variable.

Wind Velocity: For Wind Velocity, report representative values rather than rare extremes. You will need to use your best judgment as to what is representative. For example, if wind velocity was generally in the 5 to 15 mph range but very infrequent gusts of 30 mph occurred, report Wind Velocity, Minimum as 5 mph and Wind Velocity, Maximum as 15 mph.

Snow Depth: Minimum and Maximum should be reported to the nearest quarter-inch. Both should be reported as 0 if there was no snow. Report representative values rather than rare extremes. For example, if snow depth was typically between 4 and 8 inches with occasional 3-foot snow drifts in gullies and bare spots on ridge tops, report Snow Depth, Minimum as 4 inches and Snow Depth, Maximum as 8 inches. If snow depth increases with elevation, report the representative minimum depth at low elevation and the representative maximum depth at high elevation. If snow depth decreases with elevation, do the reverse.

Still/Moving Water: Ice Coverage, Open and Moving Water should be set by these guidelines: Open= 100% water, Partly Frozen = more water than ice, Partly Open = more ice than water, Frozen = 100% ice.

a.m. and p.m. Conditions

Cloud Cover: For Cloud Cover, a.m. or p.m., select the condition that was true most of the time. Local Fog means that only portions of the count circle had fog for most of the period, while Foggy means the entire circle had fog. Clear = 0-15% clouds, Partly Cloudy = 15-33% clouds, Partly Clear = 33-66% clouds, Cloudy = 66-100% clouds.

Rain/Snow-a.m./p.m.: For a.m./p.m. Rain/Snow, check all conditions that were true. For example, if the morning started with drizzle that developed into heavy rain, the "Rain" boxes should have both "light" and "heavy" checked for the a.m.

Observers

Observers in the field during daylight are counted separately from nocturnal birders and those observing at feeders. When reporting the minimum and maximum number of parties, remember these include only parties in the field during daylight hours.

In Field- Total Number and Minimum/Maximum Number of Parties: To determine the number of daylight parties, use the number of parties that you began the day with as your basic number. If parties further split up during the day, the maximum number in the field at any given time of the day should be reported, and the basic number becomes the minimum.

Example: Count Frozentoos, Alaska starts the day with 3 parties. Later, two of these split into two parties each. The compiler records this as Minimum Number of Parties (daylight) = 3 and Maximum Number of Parties (daylight) = 5.

Frozentoos, AK also had a group of counters out owling from 4:45 a.m. to 6 a.m., but this party is not included in the Minimum/Maximum Number of Parties.

At Feeder-Total Number: Example would be of 4 people feeder-watching for several hours during the day as well, but again, this is not recorded in the daylight party number (it is recorded as observers At Feeders, Total Number).

Party Hours and Distance

Video on why it is important to collect effort information on your CBC: <http://birds.audubon.org/videos/cbc-why-its-important-collect-effort-information-while-surveying-christmas-bird-count>
(excludes viewing at feeders and nocturnal birding)

Record a value for all hours and distance fields except for those associated with By Other Transportation. If appropriate, enter a 0 for distance. For example, an owling party may spend 1/2 hour in one spot--resulting in 1/2 hour and 0 miles owling.

Party hours and distance (Total Party, By Foot, By Car, and By Other Transportation) are reported excluding feeder hours and nocturnal birding hours and distance. Please round all hours to the nearest quarter-hour, and all distances to the nearest quarter-mile or quarter-kilometer.

Total Party Hours and Distance: Totals for Party Hours and Party Miles are calculated automatically on the website.

Please make every effort possible to be accurate with these numbers.

By Other Transportation

For party hours and distance By Other Transportation, you are given a limited choice of methods of transportation. If the exact method is not listed, please select the best approximation.

NOTE: It would be unrealistic to report any more Total Party Hours than the Maximum Number of Parties (daylight) times 12, since 12 is the approximate maximum number of daylight hours in December and January.

Compilers should make sure to get the breakdown of hours and distance covered by car, foot, and other means of transportation (boat, bicycle, skis, etc.) from the party leaders.

NOTE: Take into account that for a party on foot, it is stretching reality to have traveled--and birded--much more than 1 or 1.5 miles per hour.

Other Time and Distance

At Feeders: The number of hours is obtained by totaling the hours spent at feeders by feeder-watchers taking part in your count. Time spent observing feeders by parties afield should not be included here--they should be included in your field party totals. Hours should be rounded to the nearest quarter hour.

Nocturnal Birding ("owling"): For nocturnal birding, report the number of hours spent by all parties in the field during non-daylight hours, rounded to the nearest quarter-hour and for the distance, total up the distance (by foot, car, or other transportation) traveled by those parties, and round to the nearest quarter-mile or quarter-kilometer.

RECORDING CHECKLIST DATA

For each species seen, record the number observed on count day, *or enter "cw" if the species was observed count week only.*

The **count week** runs from three days before to three days after the count day. The count week can therefore extend outside the official count period; for example if your count is run on 14 December, the first day of the period, your count week is still from three days before to three days after your count (11 through 17 December). Count week birds are those that were NOT seen on count day but seen within the count week period and are indicated on the checklist with a "cw", noting that they were present. Numbers of count week birds are not recorded.

Please remember that, for birds coming to feeders, it is the highest number of individuals seen and heard at one time that should contribute to the total number for that species.

Please note that species only reported by birders not participating on your CBC but listed on local list serves or eBird should never be included in your results. All birds included in your CBC results must be seen by official observers on your count; these will be part of full checklists with their respective effort data. Species mined from eBird or other sources will not have these critical additional data.

Other Flags: The US (unusual species) flag is for species that are out of range or seasonal or are difficult to identify. The HC (high count) flag is if the number of birds observed is an unusually high count. The LC (low count) flag is for unusually low numbers.

Note that when a new species is added to the checklist in the online database, you must decide whether to flag it as "unusual". The requirement as to whether a species is "unusual" and therefore needs a rare bird report requires a human to decide. You should obtain guidance from your regional editor about what species will need rare bird reports and should be flagged as "unusual". The data system does not have any special knowledge about individual bird species and does not set this for you.

Total Number of Species

The total number of species that will be recorded equals the number of AOU-listed ('real') species observed on count day plus any generic or *sp.* forms not represented within the list. For example, *loon sp.* counts in your total only if no other loons were identified to the species on count day. A species such as Dark-eyed Junco only counts once in your species total, even if three or four forms were identified on count day. Your total will not become official until it has been reviewed by CBC Regional Editors.

Note that the online system does not calculate this for you automatically – you will need to manually enter the total species number.

RECORDING UNUSUAL SPECIES

General Instructions

Documentation of all rare bird/unusual species must be submitted directly to the regional editor, not to Audubon. If you have received written reports from observers documenting species that they observed on Count day, and especially if you have photographs of sketches accompanying the report, it is best to mail or email and scan of those "original" documentations directly to the regional editor. It is NOT wise to transcribe those reports into other forms, as the report then becomes yours, not that of the observer.

Regional editor contact information can be found here:

<http://birds.audubon.org/programs/cbc/cbc-regional-editors>

When are Unusual Bird Reports Required?

Unusual Bird Reports are required under the following circumstances:

Neotropical migrant species for which there are few accepted records for North America. Any reports of these species in North America **MUST** be accompanied by impeccable substantiating details, preferably including sketches and/or photographs, or they will be deleted from counts. The only exceptions for some of these species, such as Broad-winged Hawk and Ruby-throated Hummingbird, will be for the very limited geographic area (like coastal Louisiana or south Florida) where the species is regular on Christmas Bird Counts.

The species (or form) is out of range, season, or difficult to identify. These species should be flagged as US (Unusual Species) when reported on the checklist. The best rule is that if it's a "good bird" or not a winter regular, it should include details. Lack of a report could result in the species being omitted or tagged with the dreaded ND (no details)!

Regional editors often will give specific guidance on which species will require documentation. If you have any questions, please contact your regional editor directly.

All reports must include the name and phone number of the person who is the contact for the report. This could be a compiler or it could be a participant who observed the species. Unusual bird reports are reported directly to your regional editor and not to Audubon. Please see <http://birds.audubon.org/programs/cbc/cbc-regional-editors> for regional editor contact information. The decision about accepting unusual species is up to your regional editor.

HOW TO CONTACT THE CHRISTMAS BIRD COUNT PROGRAM

The Christmas Bird Count website is at: www.christmasbirdcount.org

The compiler's web page is at www.christmasbirdcount.org/compilers, where you can find the most commonly asked questions and printable materials and references that compilers need.

The email mailbox for the Christmas Bird Count program is cbcadmin@audubon.org. This is the best way to get support if you have a question. Note that this mailbox is monitored daily during the CBC season and periodically at other times of the year. We appreciate your patience as we typically receive a very high volume of emails during the CBC season.

The mailing address of the Christmas Bird Count office is:

**Audubon Science/CBC
2300 Computer Avenue #I-49
Willow Grove, PA 19090**

*note – rare bird reports or documentation for unusual species should NOT be sent to Audubon. Those must be sent directly to your regional editor (see compiler's web page, or previous section in this manual for list of regional editors)

Phone number for the Christmas Bird Count: 302-858-0724

Note – this phone line serves staff posted in different offices. Please leave a message and we will return your call at the next opportunity. This voice mailbox is monitored regularly during the CBC season, but we appreciate your patience as we typically receive a very high volume of calls during this time.

IMPORTANT INFORMATION:

The Christmas Bird Count now relies 100% on donations to provide support to compilers and volunteers on count day, to manage the historic database, and to fund the technology to make historic data available to researchers. Please share this link with your volunteers and consider donating to ensure the future of this very important citizen science program:

Online donation form: <http://birds.audubon.org/action-items/donate-christmas-bird-count>

Text to donate \$10: Text CBC to 50555 to donate \$10 to National Audubon Society. 100% of your gift of \$10 to Audubon will be used to support the Christmas Bird Count. *Charges will appear on your wireless bill, or be deducted from your prepaid balance. All purchases must be authorized by account holder. Must be 18 years of age or have parental permission to participate. Message and Data Rates May Apply. Text STOP to 50555 to STOP. Text HELP to 50555 for HELP. Full Terms: mGive.org/T. Privacy Policy for text to donate: <https://mgive.org/privacy.aspx>*

Mail donation checks to:

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