THE ART OF THE CHRISTMAS BIRD COUNT

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Revised 2009

Most birders have taken part in a Christmas Bird Count (CBC), but few have organized and compiled one. This article is intended as a guide for new compilers and a refresher for compilers and team leaders. It also provides some guidance for team leaders and members on count day.

I have some experience as a CBC compiler at Cottage Grove (1971-73), Florence (1983-87) and Coquille Valley, Oregon (1991-present) CBCs and I have participated in 15 of Oregon's CBCs as well as counts in Missouri. Counts in other regions may have unique conditions, but much of this article may be useful to them as well.

Starting a new CBC

Imagine that you are starting a new CBC, the "Lister's Bay" count. What are the initial considerations in setting up a CBC? First, ask yourself "Why here?" Why put a CBC in the vicinity of Lister's Bay? Bear in mind that birders already support scores of counts. Competition for dates and observers already is keen. Ask around to find out how many observers can be expected. To what extent will the count be locally supported? A count with a long-term core group of local birders is more likely to survive than one relying largely on imported talent, unless the birding area is so inherently interesting that people will always want to go there. Examples of the latter sort of count are Tillamook Bay, Oregon or Grays Harbor, Washington which have only a few local participants. At the other end of the spectrum are counts like Salem, Oregon or Spokane, Washington which have large local contingents and few imported observers.

Unless you can get enough people to field at least 5 teams, don't bother unless there are special reasons for the count, or unless conditions allow fewer people to make a useful census. Examples of the latter situation include marginally covered CBCs conducted in order to census Spotted Owls or other special-interest species. Another example is the count held in a traditionally uncovered habitat, e.g. open ocean or alpine regions. A special condition might also be isolation — Hart Mountain, Oregon or Creston, British Columbia. Large sections of the region would otherwise be countless. Another special condition is open country and open water, which are easier to cover with fewer observers.

Second, you must decide where to put the count circle. The National Audubon Society allows you a circle 15 miles in diameter and doesn't allow overlap with any other count circle. Other than that, where you draw it is up to you. There are special rules for pelagic counts. There are two primary considerations in drawing a circle: will it include the birds

you want to count, and is there adequate access via roads, trails, viewpoints, etc.? Part of the first question is whether to seek species variety or good counts of particular species. I faced an example of this choice when drawing the Florence, Oregon circle, because a circle drawn to include Siltcoos Lake, the largest duck wintering lake on the central Oregon coast, is too far south to include the rocky headlands around Sea Lion Caves and Heceta Head, the only rocky shores near Florence. A southern circle would also have excluded a portion of the beaches where a sizable group of Snowy Plovers winters. Now there are thousands of scaup and coots just outside the Florence CBC circle, but both can be hard to find inside!

Third, you must contact the National Audubon Society. They require a good quality map of the circle and the coordinates of the center, as well as evidence that you can scrape up enough observers to make a go of it. Check with National Audubon for deadlines. They require new counts to be in to the bureaucracy by October in order to get a compiler's packet to you in time for count period. The packet includes their count form and instructions, special requests (for example, for the sex of all American Kestrels), and other minor paperwork and junk mail inserts. It is now November and time to organize your first annual Lister's Bay Christmas Bird Count!

Organizing the CBC

Begin organizing the count early. Unless your count always uses a set date (e.g. first Saturday in the period), announce the date as early as possible, say by September. Start recruiting observers by mid-November for a new or "imported talent" count, late November for an established, locally supported count. Some aspects of the count, such as final team assignments, can't be done with certainty so early, but other things can.

When choosing a date, bear in mind that other counts have well established dates and patterns of observer attendance. For example, the Coos Bay and Columbia Estuary, Oregon counts are traditionally held on the first Sunday of the count period. This is not a problem because they are over 200 miles apart. However, another coastal count scheduled on that day may have difficulty attracting observers and will need a strong local base. Choose a practical date by looking at past count dates and talking to potential observers about the other counts they plan to attend.

Before beginning the next steps in count organization, consider the count as a whole, as a day-long birding event involving a variety of people. The purpose of a CBC is to locate every species present in the count area in numbers proportional to those actually present. That is, don't miss any species and count everything that moves.

This primary purpose is to provide a statistically valid (given enough counts) and generally useful account of the species and individuals present in the count area. The secondary purpose is to provide a high-quality birding experience for the participants such that they will want to participate again. This latter purpose is important not only for the count's ability to field enough observers to maintain validity, but for the sheer pleasure of birding. I attend CBCs because they are usually fun. If they are no longer fun, I won't go. I suspect that many CBC participants feel the same way. A successful CBC, to me, is one

that achieves a customary level of statistical utility and also is enjoyable for the people involved.

Organizing the coverage

Although the next step is to recruit participants, this is a good time to sit down with a map of the circle and sketch out some rough team boundaries. The processes of recruitment and coverage design are necessarily intertwined. The recruitment of participants varies widely from count to count. A few with very strong local support need only recruit at local Audubon Society or bird club meetings. Counts such as Grays Harbor that have little local base must search elsewhere for every observer.

When recruiting for the Lister's Bay CBC, you will likely fall somewhere in between. You will have a few local participants from the small city of Noburg, but you will also need to recruit from elsewhere. There may be groups such as Audubon Societies in nearby cities. Notify them of the count by early November if possible so they can put a blurb in their newsletter. Notify the Noburg Herald, too. This probably won't net many new team members, but will often produce good home counters as well as letting people know what is going on.

The circle may contain certain species, such as Snowy Plover, Spotted Owl, etc. that certain birders are known to have an interest in. Send a postcard mentioning the species and if possible offer to send Penelope Plover-lover on the beach team and Olivia Owlogler into the woods at 3 am. Finally, send an e-mail announcement to likely participants you know, with an RSVP deadline. Many will respond if interested, allowing you to commence planning your coverage.

You now have a list of names, some of which have question marks. At this point comes the first of the ugly realities for the organizer. You will never know until the last minute who really is going to show up on count morning. My response to this used to be to prepare 17 different contingency plans, with maps and so on. That proved an insane technique for the peace of mind of the organizer, so I recommend that you keep a few observers, if you have enough, in "Team Zed" until the last minute. Use them to fill gaps as needed.

There may be a couple of loose observers present come dawn, especially on counts of the "meet in the morning" variety. Send them looking for tough species, tack them onto a team that has too large an area, give them some territory that you hadn't planned to cover, or give them a bit of all 3. There are, or course, obvious advantages to the organizer assigning herself to Team Zed. She is in the best position to know the last-minute needs of the count.

Coverage design is a matter of geography, experience, personal traits, and simple numbers. Your Lister's Bay CBC has attracted 21 field observers, ranging in competence, experience, and the unique enthusiasm I call "count attitude" from Bonnie Biglist and Stan Scoper at one end to Uncle Ted and his pocket telescope from the Battle of Manila Bay at the other. You also have Emil Snork, who has always covered Chickadee Park and plans to do so until death though he couldn't hear a chickadee if one called from his beard. Harry

Hawkfreak responded to your promise of raptor-saturated pastures but can't identify a junco. And Roger Runabout can identify juncos but wants to skim the circle for rarities. You wanted observers, and here they are!

What are you going to do with them? You can create 7 teams of 3, or some other combination. But just what is in the circle for these people to cover? Well, there is Chickadee Park, Shearwater Point, Raptor Valley, urban Noburg, Peep Flats, Rail Marsh, Wigeon Lake, several chunks of reasonably productive forest and brushland, Grouse Peak, Eagle Canyon, Plover Beach, Grassy Knoll, and of course the clearcuts of Vulture's Breath Ridge and the bleached snags of Darklark Dunes. Every Starling in the circle visits the latter thrice daily.

In addition, there is no way to get at Raptor Valley except via Darklark Dunes, and Grouse Peak and Eagle Canyon are separated from the rest of the circle by the silent stumpscape of Vulture's Breath Ridge. Because of the habitat configuration in the circle, much of the most productive habitat is clustered in nodes, and here the birds swarm in splendid variety.

As organizer, you can simply carve up the circle by habitat — a mountain team, a park team, a bay team, a river team, and so on. I advise against this technique. Instead, cut a swath out of all sorts of habitat for each team area. This isn't always possible, and has certain negative aspects, but in general is best. Most birders like variety and the chance to come up with a solid species list on a CBC. There are geographic limitations to this cross-habitat technique. A small pond can't be sensibly divided between 3 teams, although if it is productive, multiple visitation by poachers keeping careful notes could be useful.

At Lister's Bay, you will find that roads don't always go where you want them. Design coverage so that teams don't have to backtrack to get around their area. However, there is nothing wrong with going over parts of your area more than once. Indeed, this is good technique. But do it because you want to, not because the organizer stuck you with a lot of dead ends.

A useful planning tool, especially for counts that frequently change area boundaries, is a laminated copy of an 8 1/2 by 11 inch circle map. A print shop can do such lamination for a couple of dollars. A waterbase (temporary) acetate marker will allow you to fiddle as often as necessary with area boundaries without having a stack of blank maps at hand or trying to remember which of ten computer files is the current one. I put 2 maps in the same lamination for twice the fiddling power at the same price.

Team assignment

Now that your areas are brilliantly sliced out of that portion of the circle that you choose to cover, it is time to assign team leaders and members. Team leaders who know the area are best, but in any event choose people with a certain amount of dedication — people who still have the ability to bird in the snow at 3 pm and convince others to do the same. For a compiler, the most crucial component to success is to field as many observers as possible unless you have the rare good fortune of absolutely the cream of birders to choose from.

Although weather is a significant factor for good or ill in the northwest, nothing beats a good turnout for finding birds. Observer quantity helps make up for not always having a very experienced observer in each team. Most birders who come on counts can identify most of the birds they see, but keep in mind that some people have just as much an aversion to processing a flat full of gulls as others would an endless sparrow patch. Match observers to their strengths.

One concept that some compilers have trouble grasping is this: observers should be concentrated where birds concentrate. There are situations where this does not apply so clearly, mainly in open spaces where one observer can easily count a thousand ducks or thirty buteos. In general, however, count organizers ought to avoid wasting observers on bird-free zones. As long as the habitat coverage is accurately stated in count data sent in, this does not raise a problem for users of the data.

Sensible compilers make choices about where to emphasize coverage and where to skimp: it is all very well to have some teams take a swipe at recent clearcuts or high sage plains, but having three teams staggering about in that habitat all day is not a productive use of limited observer-hours unless a main purpose of the count is to survey that habitat. At the counts I have organized, Cottage Grove, Florence and Coquille Valley, Oregon, some places were left uncovered on purpose in order that observers would be able to cover their areas more thoroughly. At Coquille Valley, which sometimes finds the largest species variety in Oregon and often has many high individual counts, about 40 percent of the land area of the circle is never assigned or visited on count day because it is unproductive and, in many cases, inaccessible.

However, there are situations in which sending one or two observers on a half-day hike through spotty habitat can produce good birds. This is especially true along the outer coast, where walking beaches or deflation plains behind dunes may only produce nine species, but three of them are found nowhere else.

Note that in winter many birds can be found most easily in cities and towns. Temperatures are slightly warmer (in some micro-sites much warmer) and there are often plantings that provide both food and cover. Feeders are an incredible CBC resource that are undercovered in many situations. The tendency to undercover urban areas on Christmas Counts results in missing many birds. This is especially true of rare winterers such as warblers. One or two of the best birders ought to be assigned to sift the neighborhoods for unusual birds lurking in yards, deciduous draws and brushy sumps. It does not take much habitat to hold a small bird desperate to survive under undesirable conditions.

When you are designing coverage, resist the temptation to ignore residential and urban areas. Except for central business districts and the newest, most sterile developments, cities are full of birds in the winter. Backyards contain the remnants of old orchards. Little garden plots exist in odd places. Give some teams mandatory streetwalking. They'll come up with hawks, rare sparrows, and Northern Mockingbirds sitting on convenience store fences.

Team size will be somewhat dependent on observer turnout, but except in unusual circumstances they should all fit comfortably in one car. Four people is usually a practical

maximum, and is easily divisible in the field. Five is a pack, 6 a horde, and 7 is a convoy: 2 teams masquerading as one, often to the detriment of the count. I have seen the convoy technique work, but it is only effective where the mega-team covers sites such as large parks where the ability to send a skirmish line a mile wide through the habitat provides better coverage. Convoys are a poor technique when teams are limited to roads.

Team member mix is a delicate subject. There are people who don't like each other and people whose birding styles clash. Note, however, that differing styles do not necessarily clash, especially on a CBC. Some of the most thorough coverage I have seen came from teams that combined rather sedentary experienced older birders with lively teenage brushstompers. Different styles can result in different and more birds. That's the point, right?

A final note on boundaries and the mysterious Circle Edge. CBC maps need to be reasonably accurate, but if a road wanders along the edge of the circle, in and out by a few hundred feet, no one really knows or cares whether the robins were on one side or the other. The maps aren't that accurate, and can't practically be made so. The rule of thumb for the all-important In or Out is as follows, arbitrarily set by me. There is a Swallow-tailed Kite sitting in a snag on the edge of the circle. If you know it's In, count it. If you think it's In, count it. If your aren't sure, count it. If it is obviously Out and you can't convince yourself that it flew from In, hope that some unknown party starts a gorse fire behind it to goose it into the circle, because otherwise you're out of luck. This is obviously of greater interest with the Kite than with the flock of juncos.

Draw area boundaries so that teams understand them. Avoid drawing them down the middle of roads ("Well, it was on our side until the Merlin chased it"), or narrow waterways ("We thought *you* were looking for the Smew that was there yesterday"). Use ridgetops, abrupt habitat changes and other features likely to be obvious.

Leading up to the count

In the week or two before the count, notify local police agencies of the count. This will keep owling teams unhassled and free to owl, and will give teams a head start in explaining to the gendarme their peering into backyard garden plots. Another note to the local paper can help, too, as residents may stop a team to say there is an eagle in a tree on Cat Street, which would otherwise have gone uncovered. Some pre-count coverage is good, if possible. Where is the shrike hiding? Are there rails this year in that otherwise useless ditch? Which feeders are active? Finally, seed slicks can be laid at areas where sparrows concentrate, to make them easy to find on count day. This is especially helpful with species such as Swamp Sparrow, which is disinclined to come out in the open.

An information packet sent early to team leaders should contain: a good map of the area to be covered; aerial photos if useful; tide information for coastal counts; phone numbers of all team members, other area leaders, and the organizer; notes on the area and past coverage; information on any pre- or post-count meetings; the names and phone numbers of local people such as park caretakers and landowners who may be willing to permit special access; and finally, a list of species specially to be sought in the area or hard

to find in the count as a whole. Some areas have good maps downloadable from free online sites.

Some teams will use a lot of this material, others will use none. The organizer's job is to give the team leader as many options as possible, so that she can make informed choices on count day.

Count day

Go count birds. Never let tallying take up more time than counting. Adjustments can always be made if the woodpecker didn't get marked down the instant after it was seen. If you were marking it down when the Goshawk snagged it and flew away, you will never know that the list — and your day's birding experience — is short one large rare accipiter. Try to stay caught up on jays, magpies, sparrows, and other more "even-flow" species that are hard to accurately remember later.

In addition to food and appropriate clothing, there are 2 things that counters ought to bring and often don't. One is that nasty little red Audubon squeaker that Aunt Jane sent you. The ugly truth is that those things work if kept dry, and are useful to give the old pishing lips a break during a long day in the field. The other (don't laugh) is an umbrella for counts in the rain zone. Why get yourself, your binoculars, and your scope soaking wet while scanning pastures? They have one important negative characteristic: noise. The rattle of raindrops may drown out the chatter of Crossbills. Use the small, collapsible kind with the loop handle, and hang it from a belt clip when not in use. It is not a replacement for rain gear, but an added convenience. Finally, some kind of sound-pod with portable speakers useful for calling rails will be helpful for some teams.

The CBC is next to useless as a true population indicator unless accurate party mile and hour data is kept. Keep your compiler happy and your data useful by keeping track of those numbers. The same is true of habitat coverage. If you never got to that pasture, indicate that on your results, or the compiler may try to guess your coverage from the maps. A count known to have spent 50 percent of its energy in the forest is a better indicator of woodpecker populations than one that spent 10 percent even though the maps may show 60 percent of the area as forested. Don't make the compiler guess what you did.

Remember, as a team leader your purpose (and that of the count) is to locate every species present in the count area in numbers proportionate to those actually present. The key to a count achieving this goal is to get as many people in the field as possible, send them where the birds are, get them out of their cars as much as possible and get them to make attractive noises, i.e. "pish" and hoot.

Tips for team leaders and members

Although it is not always possible to do a dry run through your area in the days before the count (especially on "imported observer" counts like Gray's Harbor, Washington or Tillamook Bay, Oregon), you can nag the compiler for information about where to go. If possible obtain permission from landowners to count on their land. Public but limited access locations such as sewage ponds and dumps are always good. Railroad rights-of-way are often splendid counting routes. I once walked "cross country" on the Eugene CBC by using a railroad line. I had more Lincoln's Sparrows and Marsh Wrens than I had ever had in my years of covering that area. One team at Coquille Valley counting at a private dairy farm found a Northern Saw-whet Owl being harassed by a Swamp Sparrow in a willow patch in broad daylight — you never know what's hiding on private land.

Any good count organizer will provide adequate maps to the area and suggestions about what birds to look for. The question is what you do with that information — how do you operate your team on count day to meet the goal of finding all the birds that you can?

In the northwest we have roughly eight to nine hours of daylight in which to count, depending on weather conditions. Except on counts with enormous turnouts that is not enough time in which to truly "cover" a count sub-area. Areas are simply too large. The concept of observer concentration carries over to you as a team leader. Parts of your area will be dense with birds, other parts sparse. Some spots require intense bush-to-bush birding, an exercise in bird-by-bird extraction that can be tedious but produce great results.

I recall following a loud "chink" note in and out of the bushes in Sunset Bay park on a Coos Bay count in the mistaken belief that I was chasing a small woodpecker, only to finally unearth *three* White-throated Sparrows in one shrub. On another Coos Bay count I decided to stop at one more swampy hole surrounded by bushes in a residential neighborhood. It looked birdless. When I pished I got a Townsend's Warbler, Bewick's Wren and an Anna's Hummingbird at the same time. Rare birds such as Northern Waterthrush and Black-throated Gray Warbler have been lifted into sight that way, as has the odd Harris' Sparrow.

Anyone interested in effective winter birding west of the Cascades needs to read the excellent article on birding winter habitat microsites (Irons and Fix, 1990) in *Oregon Birds*. This is the definitive guide to being where the birds are and finding them in the moister parts of the northwest. In sum, spend your energy in moist sump areas choked with blackberry, canary grass, teasel and scrub willows. The more of this habitat the better, especially if it is contiguous. However, don't get sparrowitis to the extent that you completely ignore the brooding evergreen ridgetop that overlooks the juicy bottomlands. The count's only Red Crossbills are probably up there hoping that you'll miss them.

The concept is also applicable east of the mountains, but the habitat is somewhat different, being generally devoid of blackberries. Willows and Russian-olive are the common species found in moist lowlands and brushy draws, and these places tend to have more cattails than west of the Cascades, and are often frozen. The crucial factor in finding birds on east-side CBCs is finding unfrozen water and focusing your birding along it. See also the useful article on locating Swamp Sparrows (Fix, 1992) which is good advice for winter birding in general.

If you have done CBCs you know about the two o'clock blahs. There comes a time in the afternoon when the early morning catches up with you and the area seems, well, adequately covered. That's why experienced counters do most of their heavy lifting in the morning. Most areas have places that require long walks and other places that are better birded from one spot. Ideally, of course, you walk all day long, as you will find far, far more birds in most habitat. However, most people don't have that kind of energy and most counts don't have areas designed to be covered that way.

One obvious but little-used technique for covering large areas that have lots of birdy places is to "leapfrog" your team members. As you enter a good area, drop one or two people along the road and have them walk a mile or so to where you have filed the car. You, having left the car, proceed on foot ahead on a predetermined route. Your team members pick up the car and drive it ahead of you to another agreed-upon location, where they park it and walk onward, and so on. This allows two or three people to bird a large area very intensively. I have had remarkable success in getting high counts of species like small woodpeckers using this technique. It can be stunningly effective at finding owls under good conditions, see Fix (1987). Hint: remember to give your team members a set of keys or they will get to the car and be stuck there, while you wander indefinitely onward, beyond their reach, an ornithological Flying Dutchman.

By late afternoon it is often most productive to direct your energy at birds going to roost such as gulls, harriers, turkeys and sometimes waterfowl. In the interior west this is a good time to find Gray-crowned Rosy Finches going to roost in Cliff Swallow nests or similar protected sites. If you have done some serious walking in the morning and have as a consequence done very well on woodsy birds, pipits, hedgerow lovers and the like, you can feel quite comfortable using your afternoon to scope from some good vantage point while giving your body a break. You'll be amazed at what you can see at great distances by using your scope for more than watching buteos and ducks.

Also remember that some really good birders are for physical reasons (health, hearing loss, mobility problems) unable to spend the day scrambling up 45 degree slopes after mysterious "chip" notes. These people, often older birders, are still extremely effective in the field when they are placed where their years of experience can be used without wearing them out. They are glad to be involved and will do excellent work on duck-filled pastures, raptor havens, shorebirds and sea-watching — situations where experience and visual acuity outweigh other physical factors or hearing problems.

A distant blackberry or willow patch carefully watched can yield everything from Lincoln's Sparrows to Orange-crowned Warblers to the dashing shrike that would like to eat both. Small hawks (and Red-shouldered Hawks) are notorious for being invisible at a distance although sitting in the open, and some languid scoping can raise them from hiding. Even on a nasty day you can scope in relative comfort through the simple expedient of using an umbrella. You won't hear passerines very well over the noise of raindrops, but you can scope for a long time without getting sodden. A sheet of mylar or one side of a plastic binder cover (minus the three rings) held on with a rubber band keeps the rain off the objective lens if you don't have a slide-out shield. See the unique article on scanning the sky (Fix, 1988) that helps at any time of year for other ideas on how to find lots of birds from a fixed position.

A specialized variation of this idea is sea-watching. Team leaders assigned to ocean view areas can almost always add several species to a count by spending a certain amount of time simply staring at the ocean. You'd be amazed what will fly into view. On a Coos

Bay count in the 1980s I was scanning from Shore Acres (o.k., I was idling in the afternoon) when the whole scope field was filled with two massive birds — a Brown Pelican being pursued by an adult Bald Eagle! Certainly a rude awakening for the pelican after the usual Heermann's Gulls. Other birds seen by diligent CBC ocean-watchers include Sabine's Gull, Heermann's Gull, Oldsquaw, the rare jaeger, lots of alcids, Peregrine Falcon, shearwaters, Northern Fulmar, Red Phalarope and others.

If you come across a patch of nice habitat for small birds, have one member of your party pish while another does a Northern Pygmy-Owl imitation. The capacity of this combination to attract birds is remarkable. I am constantly amazed at the number of birders who, even on CBCs, get out of their cars (or worse, stay in them), make no sounds, and, of course, see few birds. Make attractive sounds and you'll see far more. Those little red "Audubon" squeakers that well-meaning friends get you for Christmas are pretty effective once you learn to use them, especially for Fox Sparrows, Yellow-rumped Warblers and other birds that make a solid "chip" or "chunk" sound.

The pish and hoot technique is especially useful when you see or hear one small bird in winter, because chances are that forty are quietly feeding just out of sight, ready to be called in. Many species feed in mixed flocks, and such species as Hutton's Vireo or warblers can most easily be extracted from such groups in winter. It is often the case that the more you "work" such a group by pishing and hooting, the more birds come in from all directions.

There is nothing wrong with covering a location twice. It is essential in any tidal zone and very helpful at any lake or pond where waterfowl come and go. Different birds use these areas under different conditions or at different times of day. The same is true of wide-open areas that support raptors. These birds move around and by checking an area more than once you can find more of them.

Tips for owlers

Owling begins well before count "day," and there is nothing more frustrating than going out and stopping in all of the wrong places while finding no owls and mistakenly parking in the sheriff's driveway. Some owls are relatively easy to stake out ahead of time. A little practice will make you familiar with the habitats preferred by various species so that your count day stops are as hootful as possible. There is a great feeling in starting your count at dawn with two or three owls already in your pocket. See the note above on leapfrogging for an especially effective owling technique.

You can also find owls in the daytime, especially east of the Cascades. Long-eared and Barn Owls are fond of roosting in dense willow or Russian-olive thickets in open country. If you are pishing the outside of such a thicket you may not flush the owls. If you stick your head into one side of the bushes while your team members watch, they may be treated to a sight I once had: two Barn Owls and half a dozen Long-eared Owls boiling out the other side while a Great Horned Owl watched in amused dignity from a nearby cottonwood. West of the mountains there are more places to hide and such roosts are

harder to come by, but you can still find Barn Owls by peering into barns with the owners' permission — Barn Owls really do live there.

Here are some broad generalizations about CBC owl-finding. Western Screech-Owls like the edges of wooded areas with at least some older deciduous trees next to open mousy fields or pastures, even (or especially?) small grassy sites. They are not much for huge wide-open spaces. Northern Saw-whet Owls like mostly evergreens (not necessarily large trees) with some grassy openings, but they sometimes use dense willow and even ash stands, especially in swampy areas. Northern Pygmy-Owls prefer heavily wooded evergreen canyons and hillsides and don't need large open spaces, although narrow stringer meadows are ok. Great Horned Owls can be almost anywhere but big dense trees, even in city parks, are often favored. Great Horned, Barn and Western Screech-Owls east of the Cascades all use holes in cliffs from time to time.

I won't make this a treatise on the ins and outs of finding each species of owl — for one thing I am not especially successful with some species. Listen to recordings and learn to imitate owls, or just bring the tapes along and play them. That is a bad idea in the breeding season but for CBC purposes it is ok — there is not yet much breeding activity and there are few CBCs and many owls.

One final note on night birding — you can find more than owls. Rails are especially known for night activity and occur at open water in most of the region (sometimes at warm springs in colder areas), and Black-crowned Night Heron can erupt with a "krowk!" at almost any CBC with open water in the region.

A note on poaching

Poaching is the practice of one team stealing species from another team's area in order to come up with a big day list or see rare birds known to be in the area. It is useful and productive if used properly. Don't tell teams not to poach on other areas. Make all areas small enough to complete within a reasonable day's effort, and tell teams to poach if they have time. Suggest some possible areas to poach.

In 1984 the Eugene, Oregon CBC team in whose area a Snowy Owl had been lurking was jinxed on count day, finding everything but the owl. A poaching team made a pass through the area and found it. Boundaries are for convenience, and to make sure that areas that should be covered get covered. If you've squeezed all of the Song Sparrows out of your area, go elsewhere. This is a bird count, go where the birds are.

Be sure to keep separate notes on when and where you poached which birds.

When you're done

At the end of the day, have a get-together in some warm place with food and good cheer. Give people a chance to brag and gripe about the day's birding. Don't just collect the lists in some cold, rainy place and let everyone disappear into the gloom of night. That's no fun. Choose a restaurant or birder's home in Noburg and be festive. Give Team

X a chance to brag about how hard they worked to find that Peregrine, when in fact it was sitting on top of the Dairy Queen where they went for a surreptitious hot cocoa break when the thermos ran out.

At the end of the count the organizing is done and the compiling begins. Compilation is more than just sitting there with a calculator or computer. Did Team 4 really walk 30 miles? The swans and Rosy Finches were moving back and forth all day, so which sightings are likely duplicates? Details for the Reddish Egret seem adequate, but it was seen by Dan Dreamer, who had a full flask of Wild Turkey for lunch. The 6 Avocets skimming puddles in the 7-11 parking lot have no details at all, but were seen by sober Bonnie Biglist, and who could mistake an Avocet?

The birds that weren't

Compilers are loathe to purge sour species from the list, largely because birders are personally attached to their rarities and reputation is so important in birding. Tell people ahead of time what sort of details are required (in Oregon and Washington these are standard and published online in advance, see the regional editor's CBC web site at http://home.pacifier.com/~mpatters/cbc/cbc_WAOR_reg.html), and announce that you will mercilessly purge those that don't measure up.

Consider appending a brief list of species that are often reported with inadequate details: Swainson's Hawk, House Wren, Swainson's Thrush, Yellow Warbler etc. Purging has to be done by someone, or the whole count acquires a certain taint. Don't leave the dirty work to the regional editor.

When you send out or publish the results, explain, at least to the people who reported the inadequately supported species, why you found it unacceptable. Don't just secretly dump the species. Use the opportunity to improve the field skills of your observers.

Send some sort of results to your observers right away. They did the work and are entitled to know how it came out. I send a complete breakdown by area and species, previous years' highs and the average, a map and observer list by area, and a letter with my comments on various highlights of the count. If you care about the quality of your observers' experience, they will come back again next year. Finally, fill out the official online form for National Audubon, and make a few notes to yourself for next year.

The Lister's Bay CBC has been a success!

CBCs can be started wherever the energy exists to start them. The Christmas Bird Count is one of the most wonderful of birding experiences, an excellent way to introduce people to the joy of birding. Keep recruiting, keep developing new talent, keep the fun in birding. I hope that these thoughts will help make your CBC experience both more successful and more enjoyable. Remember that each count has its own traditions, so if you are a visitor don't try to tell your team leader how to run the area she's been doing for ten years. Just enjoy the day.

Thanks to Barbara Combs, Anthony Floyd, Craig Miller, and Paul Sullivan for their comments on an earlier draft of this article. They contributed significantly to some of the ideas set forth here. Good Birding!

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