



The Contents of American Birds, Summary of the 99th Christmas Bird Count, December 18, 1998 to January 3, 1999

The 99th Christmas Bird Count season was a pivotal one for the Count-history may show that it was the most significant year since the 1st CBC in 1900. This was the season when the Christmas Bird Count took on a new life-a life in cyberspace.

As most participants (and certainly all compilers!) know, the entire historical Christmas Bird Count database is now contained within the BirdSource website, where it is ready for viewing, review, and use. While many years' count data were on line before, this is the first time the complete data set has been available. The entire cumulative CBC is now viewable from what is termed a relational database. BirdSource now enables people to ask questions of the database, search for species over time, and will soon allow interactive, entertaining display of Count data. CBC data are now more readily available to biologists and conservationists for their own research and use than ever before, and the entire Count is now "cruise-able" by participants and other birders.



Birders never know what's going to be found as a yard bird on a Christmas Bird Count. This Brambling was visiting a feeder at Prince George, British Columbia. Photo/via Mark Phinney.

An especially important aspect of the on-line conversion of the Count is the ready availability of data for further review and correction. While each season we undertake great efforts to make sure CBC data are as clean as humanly possible, given the volume of material some errors still sneak through. Having all data from 1900 to the present available in a user-friendly form (and without the nagging pressure of publishing deadlines looming overhead!) Compilers, Regional Editors, and CBC aficionados now have the opportunity to review historical Count data at their leisure and report errors to a database correction manager. This will further enhance the value of what is already the ultimate tool for monitoring early-winter bird populations across the Western Hemisphere. You are invited to check it out yourself!

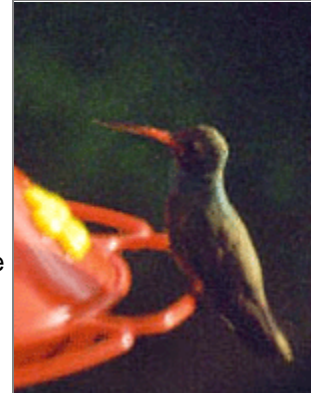


Adult male Summer Tanager, Greater Portland, ME. Photo/Richard Eakin.

Developing the relational database and the BirdSource website were only two aspects of the on-line conversion of the Christmas Bird Count. Equally important was providing a method to Compilers of on-line data entry of CBC sightings through BirdSource. Several months' testing of the site prior to the 99th Count period by a dedicated team of "Dovekies"-compilers who tested the data entry pages for functionality, stability, and user-friendliness-paved the way to easy and fun on-line data entry for all compilers with access to the Internet. We can't possibly thank the Dovekies enough! Their invaluable input was key to the resounding success of the project, and the subsequent direct on-line submittal of over 800 counts (50% of the 99th CBC data). Given that this was the first season this on-line data entry was available, many kudos go out to all involved. The remaining results from North American counts were submitted by Compilers on the traditional paper forms. These were entered on-line by BirdSource and Christmas Bird Count staff, thus completing the successful first season of the "cyber CBC".

One hurdle remains to be cleared-the incorporation of non-North American bird checklists into BirdSource. By the time we finalize the rapidly approaching 100th Christmas Bird Count's results, we hope to have on-line data entry available for counts conducted in the Caribbean, Latin America, and Guam and Saipan (or anywhere else in the Western Hemisphere outside Canada and the United States).

So much for the shiny new infrastructure-what happened during the 99th Christmas Bird Count? The "El Niño" season of the 98th Count gave way to a "La Niña" 99th Count, and weather again played a big role this season. Like it's masculine cousin, La Niña also affects weather on a continental basis, bringing warm and dry weather to southwest coastal North America, incessant storms to the Pacific Northwest, and generally warm and dry conditions in the northeastern quadrant. The Fall season leading up to the 99th Count bore out these predictions well-November and early December were eerily warm in the North and Northeast, and the Pacific Northwest was pounded by storms. The coastal storms continued all winter (and into spring!), but the seasons won out over La Niña in the rest of the northern tier. Counting conditions during the 99th CBC period reflect this, and with unusual clarity we can chart the advance of winter from the frigid Prairie Provinces and northern Great Plains states eastward and southward from the middle of the count period through the end.



Count-week Broad-billed Hummingbird, Prescott, AZ. Photo/Virginia Miller.

Conditions in the early part of the period were mild from the Great Lakes to the Atlantic Provinces and also notably warm in the upper Midwest, the northern Appalachians, and New England. Many species that should have been well on their way to the Tropics lingered creating amazing diversity in this part of the continent, as illustrated by 17 species of shorebirds and 15 species of warblers tallied in New England alone. Not surprisingly after last year's "superflight" of winter finches, very few representatives of this group of wanderers graced the overall 99th Count. Old Man Winter arrived with a vengeance however, and a cold front with severe storms and dangerous conditions forged downward across the continent from mid-period on. Many counts scheduled late in the period in the Great Lakes and midwest had to be curtailed or outright cancelled as a result of inclement weather, so some familiar names may not be found in the 99th tallies that follow these summaries.

In the Caribbean, another dire weather effect is reflected in this year's CBC results. Hurricane Georges pounded much of the region in the fall (especially Puerto Rico and the Virgin Islands), devastating habitat used by both breeding and wintering birds. Much of this area had only recently begun to recover from Hurricane Hugo a decade earlier, and in fact the St. Croix CBC has not been conducted since then. It may be that human observer effort on the islands suffers more in the long term due to storms like these than the naturally resilient habitat and bird populations.

A grand total of 1767 counts are included in the results of the 99th Christmas Bird Count, 1715 in North America and 52 in Hawaii and the Pacific Islands, Central and South America, and the Caribbean. This is a remarkable effort given the weather dealt to counters, only slightly down from last year's all-time record of 1780 total counts. In the United States and Canada, 39,907 field observers and 8279 feeder watchers tallied 57,756,147 birds of 659 species and 24 infraspecific forms. This North American species total handily beats last season's record of 650 species.

On the non-North American counts, 794 observers recorded another 220,487 birds, but the species total in these areas totaled over 1650! Well illustrated by these figures again is the incredible diversity of species in the Tropics. The total number of individual birds counted during the 99th Count was 57,976,634, and the total number of observers finding them was 48,980. In virtually every season since the inaugural count in 1900, the total effort includes a significant

number of new counts. This season was no exception, and **Table 1** (page 7) lists the new counts listed in the 99th Christmas Bird Count. We especially welcome the two new counts "south of the border", El Cuyo, Yucatan, Mexico and Barranquilla, Colombia. To enhance our understanding of both the winter distribution of species that breed in North America and the population dynamics of species breeding outside Canada and the United States, new counts in the "Tropical" regions are always heartily encouraged.



Harlequin Duck, Greenwich-Stamford, CT.
Photo/Patrick Dugan.

Given the unusually mild season preceding the 99th Count period and the resulting impressive record-high number of North American species tallied, the chances were good that new species to the all-time CBC bird list would be found. Lady Luck did not disappoint us, and three new species were added: Black-tailed Gull on three (!) counts in Virginia, Redwing in Ferryland, Newfoundland, and Poo-uli from a spectacular census effort in the forests of Haleakala on the Pu'u O Kaka'e, Maui, Hawaii count. Black-tailed Gulls have been occurring (or at least recognized) now for several falls along the east coast, and it seemed only a matter of time before this species showed up on a CBC. Redwing, a lovely Eurasian thrush, has showed up occasionally in Newfoundland in late fall (probably blown across the Atlantic during migration to their wintering areas in Great Britain). Poo-uli is one of the rarest birds on the planet—two of only three known individuals were found in the one locality in Hawaii where they still exist. Few humans alive today have ever seen this species—what a coup!

Two other species found this season deserve special mention. A Black-tailed Godwit was found on the Prince Edward Island N.P. count, for one of very few CBC records of this Eurasian vagrant shorebird. And a Short-tailed Albatross stunned observers on the Monterey Bay, California count. This species is another extremely endangered bird, and had never been seen on a continental CBC—only on Midway Atoll. However, thanks to conservation efforts in Japan and abroad the only nesting colony of this magnificent seabird has been producing more young birds in recent years. We can hope that they will begin to show up with some regularity on Christmas Bird Counts on the Pacific Coast of North America.

The high species total challenge in North America was again topped by relative newcomer Mad Island Marsh, Texas, this year at 230 species. Historical perennial winner Freeport, Texas was a close second at a commendable 218, followed by a wondrous host of other counts blessed with good observer effort, diverse habitat, and a generous portion of good luck. **Table 2** (page 8) contains the list of all counts with 150 or more total species. In Latin America this year Monteverde, Costa Rica again tops the list, amazingly with the same species total as last year, 343. Panamanian observers are again finding their way near the top of the species total heap, and the Atlantic Canal Area tallied 338 species in the 99th Count. On the mainland of South America itself the Mindo count in Ecuador tallied 308 species, and Trinidad (just off the coast) found an unusually high species total of 198.

In addition to geographic location, habitat diversity, and luck, the other key factor to a thorough census on a Christmas Bird Count is, of course, observer effort. This year, North Bay, Ontario surpassed perennial champions Edmonton, Alberta for top honors in the "number of participants" category, with 809 observers to Edmonton's still-impressive 620. **Table 3** (page 10) lists all the counts with 100 or more total observers.

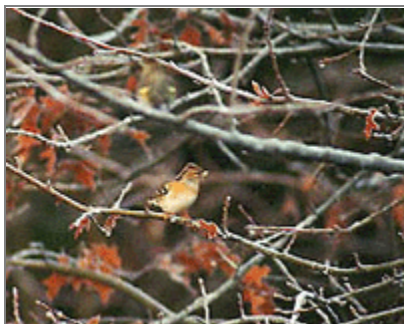
As mentioned above, the mild fall and beginning to the 99th Christmas Bird Count period enabled many birds to linger far north of their usual mid-December range. Even on some counts where the freeze-up had already occurred, lingering species were tallied before they expired or moved southward. Perusing the Regional Summaries and (especially) the counts themselves (remember-you can check them out yourself now on BirdSource: <http://www.birdsource.org>, in addition to going through the printed results!) hosts of species are found in the 99th Count far north from their usual haunts. An incredible array of shorebirds, warblers, tanagers, grosbeaks (not of the winter finch variety), and orioles can be found on many counts from the Canadian Maritimes to British Columbia, and south to New Mexico and Maryland. Franklin's Gulls normally vacate the continent for the CBC season, but lingering birds were found in several locations in the Midwest and Texas. And with the mild weather, lots of open water was available to record numbers of waterfowl and herons as far north as the northern Great Lakes. In some instances open water worked against observers-open conditions meant hydrophilic birds were harder to find than usual since they were not concentrated in the usual spots!



North of the species' usual range in the state was this adult male Costa's Hummingbird found on the Contra Costa County, California CBC. Photo/Robert Wisencarver.

Given all the lingering species, it's not surprising that quite a few record species totals were tallied in the northern portions of the continent. **Table 4** (page 11) contains the counts from the 99th CBC fortunate enough to come up with the highest species totals in each area.

One count from **Table 4** (page 11) that deserves special mention is the Zellwood-Mount Dora, Florida CBC. Mount Dora was a count in central Florida that had fallen by the wayside some time back. For the 99th season, the count was shifted slightly southward and re-started, with astounding results. Lake Apopka and the surrounding reclaimed farmland is within the Zellwood-Mount Dora circle, and the area has become a magnet for an incredible variety of bird species. This year 174 species were tallied at Zellwood, probably the highest-ever inland total on a North American Christmas Bird Count. The diversity of waterfowl, shorebirds, marsh birds, and thicket species turned up is astonishing. However, the picture isn't all rosy-Lake Apopka in recent years was reputed to be the most polluted lake in Florida. Decades of waste runoff from surrounding farmlands put a tremendous pesticide load into the area, and the surrounding reclaimed wetlands that so attract species like American White Pelicans and Wood Storks inadvertently turned into a deathtrap this season. As many as 1000 pelicans died before the wetlands were drained to stop the birds from concentrating there. Huge efforts are currently under way to clean up this critical area in Florida, and soon the lake and surrounding land will be safe for wintering birds. The Zellwood-Mount Dora CBC is now in place to help monitor this recovery.



Brambling, Campbell River, BC. Photo/via Heather Asplin.

Other trends of note appear in the 99th Count. Doves are on the increase across much of the south. White-winged Doves, Common Ground-Doves, Inca Doves, and the explosively-expanding Eurasian Collared-Doves are all on the increase in areas from the Mississippi Valley, across Texas, and into New Mexico, Nevada, and Arizona. Could this be there result of the El Niño/La Niña weather events? Or have agricultural practices changed to the benefit of dove production? Either way, CBC's can monitor their future trends.

Given the preponderance of lingering species in North America in the 99th season, it is very surprising how few Gray Catbirds were tallied. A neotropical migrant species that also winters along the southeast coast, Gray Catbirds are still one of the expected half-hardy species that often occur in small numbers well to the north. This year they were unusually hard to find in many areas.

What caused them to vacate early, while so many other birds lingered in the balmy fall? Did the La Niña-perturbed weather that affected much of this species' breeding range this summer reduce breeding success enough that most catbirds said "adios" early? The Christmas Bird Count cannot provide the answer to that question, but we can monitor how Gray Catbirds fare after future breeding seasons.

Given the background from the preceding overview, we can now delve a bit deeper into this year's CBC data. **Table 5** (page 13) contains the four species analyzed more in-depth from the 99th Christmas Bird Count. This year it includes four species we have followed over the years - Grasshopper Sparrow, Bohemian Waxwing, Cedar Waxwing, and Evening Grosbeak.

Roughly one-fifth fewer Grasshopper Sparrows were found in the 99th Count than in the 98th, and this species was reported by observers on ten fewer counts. However, it was seen in more states or provinces (14 compared to 13), and found well north in to New England this season. Fewer birds reported on fewer counts over a wider area-this reflects the same factor mentioned regarding waterfowl in the midwest, where open-water conditions failed to concentrate ducks, and observers were hard-pressed to locate them. With the favorable early season, Grasshopper Sparrows would not have been hastened southward prior to the 99th CBC season, and this is reflected in this year's reports by fewer birds found in the primary wintering areas censused by counts, in Florida and Texas. Many Grasshopper Sparrows were probably still in the northern regions of the continent, but dispersed enough in still-unfrozen fields that even eagle-eyed CBC participants were unlikely to spot them. During migration low-density, difficult-to-locate species like Grasshopper Sparrow may be best analyzed on a presence-or-absence basis in regions where they only sporadically occur. Population estimates would better be gathered by concentrating on long-term trends in CBC data from areas where this species winters (Florida, Texas, and Arizona, rather than Newfoundland or Massachusetts) and correlating these trends with Breeding Bird Survey data. Yet Grasshopper Sparrows and their ilk do serve as a very important catalyst on Christmas Bird Counts-they get observers carefully looking at every sparrow they find!



Eurasian Collared-Dove, Scott Lake, KS. Photo/Tom Shane.

Bohemian Waxwings in the 99th Count were even less well-traveled than in the 98th. Ten thousand more Bohemians were tallied this season, but they were found on fewer counts in fewer regions. They seem to have followed the same cues as the non-irrupting winter finches, and stayed close to their summering range in droves. The notable center of abundance this season was in Saskatchewan and Alberta, with a fair push southward into the northern Great Plains, though there were far fewer tallied in the Montana than last season. Remember, however, that there is a lot of area not covered by Christmas Bird Counts, and that Bohemian Waxwings are among the most gregarious of birds in the winter. Still, they did not undertake a continent-wide dispersal in the winter of 1998-1999, and were fairly localized on Christmas Bird Counts compared to some other seasons.



Orioles lingering on CBC's in the northern latitudes are often difficult to identify, as they are usually immature or female-plumaged birds. Not so was this adult male Bullock's Oriole on the Litchfield Hills, Connecticut count. Photo/via Raymond Belding.

Now we can compare the unusually localized Bohemian Waxwing reports included in the 99th CBC with those of its smaller cousin, the Cedar Waxwing. Cedar Waxwing is the waxwing of the Americas-the only endemic waxwing of the western hemisphere. This species is an odds-on favorite of any human who has ever observed one closely-their carefully manicured demeanor, subtle yet elegant body colors, and colorful fringing accents placing them surprisingly high in the world's avian beauty pageant. All that, and they show up in your face right outside the

window, too. Cedar Waxwings breed across much of Central Canada and the central latitudes of the United States, forming large, squeaking flocks in fall and moving southward in search of wild fruit crops. Like their larger Bohemian cousins, they may wander widely, but in general they winter in the central and southern United States. In the 99th Count, something seems to have pushed Cedar Waxwings to the south in larger-than-usual numbers. As seen in Table 5 many were chowing down on crabapples and sumac in Massachusetts, but the numbers southward in the east in Virginia, the Carolinas, and even Florida were also large. In the central portions of the continent, Kansas, especially Oklahoma, and Texas were Cedar Waxwing Central. California also had lots, and even Bermuda, Mexico, and Belize recorded Cedar Waxwing on their CBC's. What was up with these birds in the winter of 1998-1999? Were they pulled southward by the suction of the vacating Gray Catbirds? Not literally, of course, but Cedar Waxwings may have moved southward early in response to the same factors pushing catbirds on their way. Catbirds also rely on natural fruit crops to a significant extent, and the La Niña weather conditions of the breeding season of 1998 may have reduced the wild fruit crop in the fall and winter. As an aside, remember that Bohemian Waxwings (also frugivores) were absent in the 99th Count season from the same areas Cedar Waxwings and Gray Catbirds seem to have vacated early. All of these species may have been undertaking different responses to the same problem—a lack of wild fruit over much of central and eastern North America in the fall of 1998.

Our last participant in Table 5 for the 99th Count is another long-term favorite of birders, Evening Grosbeak. This was a year that wasn't for Evening Grosbeaks—or at least for observers hoping to find Evening Grosbeaks. These showy seedeaters were found in only about one-third the numbers of the 98th CBC, on one-third fewer CBC's, and in many fewer regions. Evening Grosbeaks were not one of the major players in the 1997-1998 winter finch superflight, being found then only in expected numbers. This season's tally is very low; Central Canada was the only area with even average numbers of Evening Grosbeaks found on CBC's. A small flight seems to have moved into the central and southern Rockies—perhaps many more were in these regions, where counts are few and logistics often more difficult. Again consider the La Niña weather effects on the eastern half of the continent—cone crops may have been low over many areas of North America both forested and densely populated by humans. Perhaps the Rockies had the good cone crop that Evening Grosbeaks desire, and they were dispersed away from observers, uncounted. Perhaps there will be a major flight of Evening Grosbeaks during the 100th CBC.



Now consider the future. You have had to visualize much of the discussion in this summary of the 99th Count—there have been many references to species' ranges across the continent, and to centers of distribution. In the near future, planned for the 100th Count period, you will be able to create abundance maps on your own through the BirdSource website. We are in the final process of creating a map-making tool that will talk to the relational historical Christmas Bird Count database. Anyone visiting the Christmas Bird Count on BirdSource will be able to query the database, asking to be presented with maps of species of interest in specific regions over time. The ranges and centers of distribution, like those that have been discussed in this summary, will be quickly presented to you in visual form through BirdSource—for species and in areas of your choice. You can finally, and easily, do your own research on the Christmas Bird Count. Also available to you through BirdSource are other projects that monitor birds; [FeederWatch](#), the [Great Backyard Bird Count](#), the [Irruptive Bird Survey](#), [Autumn HawkWatch](#), and [Warbler Watch](#). Bird monitoring can now be done in all seasons—consider the possibilities!



Aplomado Falcon, Corpus Christi (Flour Bluff), TX. Photo/Mel Cooksey.

Now consider not just the rapidly approaching 100th Christmas Bird Count, and all the birds we will be out there counting, but the future of those birds and the environment they live in. It's a daunting thought, but the continued existence of birds, humans, and the other life forms in the areas familiar to us rely upon the health of those habitats. We need a handle to be able to monitor the areas of interest to us, and birds can provide that handle. With the completion of the 100th Christmas Bird Count, a remarkable milestone will be reached—a century's span of bird monitoring, conducted by many thousands of skilled volunteers, each with a stake in the final result. This coming December and January, bird counters will be out in Toronto, Ontario, Central Park, New York, Pueblo, Colorado,

and Monterey, California—just as we have been since Christmas Day of 1900. And the birds will be there just as they've been for the past hundred years for us to find, identify, and enjoy. And we won't stop counting them, either.

—Geoffrey S. LeBaron

Table 1. New Counts in the 99th (1998-1999) Christmas Bird Count	
NFWL	Wabush—Labrador City, Newfoundland
ONBW	Bradford—West Gwillimbury, Ontario
ONDU	Dunnville, Ontario
MBSV	Seine Valley, Manitoba
AKSG	St. George Island, Alaska
VTMA	Mount Abraham, Vermont
PANM	Nescopeck Mountain, Pennsylvania
PARY	Ryerson, Pennsylvania
VATP	The Plains, Virginia
NCFL	Falls Lake, North Carolina
ILCE	Carlyle Lake, Illinois
ILML	Mermet Lake, Massac County, Illinois
ILWP	White Pines S.P., Illinois
MNBT	Battle Lake, Minnesota
ARBL	Big Lake N.W.R., Arkansas
LANS	Northshore—Slidell, Louisiana
OKTP	Tallgrass Prairie Preserve, Oklahoma
TXLH	Lake Houston, Texas
TXWC	Wise County, Texas
MTNX	Noxon—Heron, Montana
IDLE	Lewiston—Clarkston, Idaho
UTES	Grand Staircase—Escalante N.M., Utah
UTSR	Silver Reef, Utah
ORAI	Airlie, Oregon
ORBU	Burns, Oregon
ORIV	Illinois Valley, Oregon
WAWK	Wahkiakum, Washington
MXEC	El Cuyo, Yucatan, Mexico
CLBA	Barranquilla, Colombia

Table 2.		Counts with 150 or more species recorded in the 99th (1998-1999) Christmas Bird Count	
Table 2a:		Counts North of the United States—Mexican Border	
Count Code	Rank	Count Name	Species Recorded
TXMM	1	Mad Island Marsh, TX	230
TXFR	2	Freeport, TX	218
CAOC	3	Orange County (coastal), CA	214
CASB	4	Santa Barbara, CA	211
TXCC	5	Corpus Christi, TX	210
CAMD	6	Moss Landing, CA	204
CAMR	6	Morro Bay, CA	204
CAPR	7	Point Reyes Peninsula, CA	198
CAMP	8	Monterey Peninsula, CA	193
CACS	9	Crystal Springs, CA	190
CAWS	9	Western Sonoma County, CA	190
CASD	10	San Diego, CA	189
CASC	11	Santa Cruz County, CA	186
CAMC	12	Marin County (southern), CA	185
CACB	13	Centerville Beach to King Salmon, CA	184
TXCT	13	Coastal Tip, TX	184
TXSB	14	San Bernard N.W.R., TX	183
CAOA	15	Oakland, CA	181
TXCF	15	Corpus Christi (Flour Bluff), TX	181
TXAR	16	Aransas N.W.R., TX	180
TXBP	16	Bolivar Peninsula, TX	180
CAOV	17	Oceanside—Vista—Carlsbad, CA	179
CAVE	17	Ventura, CA	179
LASA	17	Sabine N.W.R., LA	179
FLMD	18	Zellwood—Mount Dora, FL	174
SCHH	18	Hilton Head Island, SC	174
CAPP	19	Palos Verdes Peninsula, CA	173
CALB	20	Long Beach--El Dorado, CA	171
CALU	20	La Purisima, CA	171
TXCK	20	Choke Canyon, TX	171
CAAN	21	Año Nuevo, CA	170
CAMU	22	Malibu, CA	168
CAON	22	Orange County (northeastern), CA	168
CAAR	23	Arcata, CA	167
CASJ	23	San Jose, CA	167
CARS	23	Rancho Santa Fe, CA	167
CAHF	24	Hayward--Fremont, CA	166
CAPA	24	Palo Alto, CA	166
FLJA	24	Jacksonville, FL	166
VACC	24	Cape Charles, VA	166
LALT	25	Lacassine N.W.R.--Thornwell, LA	164
TXLS	26	La Sal Vieja, TX	163
CASF	27	San Francisco, CA	162
FLMI	27	Merritt Island N.W.R., FL	162
LACR	27	Creole, LA	162
NCSB	27	Southport, Bald Head & Oak Islands, NC	162
TXFC	27	Falcon Dam and S.P., TX	162

CAPS	28	Pasadena—San Gabriel Valley,CA	161
LAJB	28	Johnsons Bayou,LA	161
TXPA	28	Port Aransas,TX	161
CABE	29	Benicia,CA	160
CASS	29	Salton Sea (south),CA	160
CATO	30	Thousand Oaks,CA	159
SCLP	30	Litchfield—Pawleys Island,SC	159
TXAZ	30	Anzalduas—Bentsen,TX	159
TXLA	30	Laguna Atascosa N.W.R.,TX	159
FLCO	31	Cocoa,FL	158
NCWI	31	Wilmington,NC	158
TXST	31	San Antonio,TX	158
FLNP	32	North Pinellas,FL	157
TXSA	32	Santa Ana N.W.R.,TX	157
LACW	33	Crowley,LA	156
MSSH	33	Southern Hancock County,MS	156
NCMC	33	Morehead City,NC	156
CASM	34	Sacramento,CA	155
MDOC	34	Ocean City,MD	155
ORCB	34	Coos Bay,OR	155
SCMC	34	McClellanville,SC	155
TXHO	34	Houston,TX	155
FLSM	35	St. Marks,FL	154
TXAP	35	Attwater Prairie Chicken N.W.R.,TX	154
TXGA	35	Galveston,TX	154
TXVI	35	Victoria,TX	154
FLSP	36	St. Petersburg,FL	153
NJCM	36	Cape May,NJ	153
CACC	37	Contra Costa County,CA	152
AZNO	38	Nogales,AZ	150
CABA	38	Bakersfield,CA	150
FLNR	38	West Pasco (New Port Richey),FL	150
NCMA	38	Mattamuskeet N.W.R.,NC	150
TXRO	38	Rockport,TX	150
Table 2b:		Counts South of the United States—Mexican Border	
Count Code	Rank	Count Name	Species Recorded
CRMO	1	Monteverde, Costa Rica	343
RPAC	2	Atlantic Canal Area, R.P., Panama	338
CRLS	3	La Selva, Lower Braulio Carillo, N.P., Costa Rica	333
ECNM	4	Mindo--Tandayapa, Ecuador	308
RPPC	5	Pacific Canal Area, R.P., Panama	307
RPCC	6	Central Canal Area, R.P., Panama	249
BLBE	7	Belmopan, Belize	241
BLBC	8	Belize City, Belize	217
BLGJ	9	Gallon Jug, Belize	209
TRTR	10	Trinidad, West Indies	198
CRGR	11	Grecia, Costa Rica	194
MXYS	12	Yecora, Sonora, Mexico	184
RPVC	13	Volcan, Chiriqui, Panama	178

BRIT	14	Itirapina, Sao Paulo, Brazil	166
MXGF	15	Gomez Farias, Tamaulipas, Mexico	162
MXRR	16	Rancho Rincon de Anacahuillas, Tamaulipas, Mexico	160
MXRL	17	Rancho los Colorados, Tamaulipas, Mexico	154
MXSC	17	San Carlos, Sonora, Mexico	154
MXAL	18	Alamos, Sonora, Mexico	150

Table 3. Counts with 100 or more participants on the 99th (1998-1999) Christmas Bird Count

Count Code	Count Name	# Participants
		(fw = feederwatchers)
ONNB	North Bay, ON	809 (42 + 767 fw)
ABED	Edmonton, AB	620 (153+ 467 fw)
BCVI	Victoria, BC	535 (201+ 334 fw)
CTHA	Hartford, CT	204 (155 + 49 fw)
CAOC	Oakland, CA	192 (182 + 10 fw)
MBWI	Winnipeg, MB	182 (99 + 83 fw)
NSHD	Halifax--Dartmouth, NS	168 (95 + 73 fw)
ABCA	Calgary, AB	166 (66 + 100 fw)
CASB	Santa Barbara, CA	156 (155 + 1 fw)
CAMC	Marin County (southern), CA	155 (150 + 5 fw)
SCHH	Hilton Head Island, SC	155 (155 + 0 fw)
AKAN	Anchorage, AK	150 (92 + 59 fw)
MACO	Concord, MA	146 (84 + 62 fw)
WASE	Seattle, WA	146 (134 + 12 fw)
PAPI	Pittsburgh, PA	144 (109 + 35 fw)
BCVA	Vancouver, BC	141 (91 + 50 fw)
CAPR	Point Reyes Peninsula, CA	139 (139 + 0 fw)
ABSR	Strathcona, AB	133 (44 + 89 fw)
OHCF	Cuyahoga Falls, OH	133 (92 + 41 fw)
ONOH	Ottawa--Hull, ON-PQ	129 (94 + 35 fw)
CAWS	Western Sonoma County, CA	125 (125 + 0 fw)
DCDC	Washington, DC	125 (121 + 4 fw)
NYIT	Ithaca, NY	120 (92 + 28 fw)
MDSE	Seneca, MD-VA	119 (115 + 4 fw)
COBO	Boulder, CO	117 (98 + 19 fw)
BCWR	White Rock, BC	116 (91 + 25 fw)
CASJ	San Jose, CA	116 (115 + 1 fw)
AZSV	Salt--Verde Rivers, AZ	115 (103 + 12 fw)
VAMB	Manassas--Bull Run, VA	108 (108 + 0 fw)
TXFR	Freeport, TX	107 (107 + 0 fw)
AKFA	Fairbanks, AK	106 (74 + 32 fw)

CTNH	New Haven, CT	104 (96 + 8 fw)
SKSA	Saskatoon, SK	104 (61 + 43 fw)
FLSC	Sanibel--Captive, FL	103 (103 + 0 fw)
TXAU	Austin, TX	101 (101 + 0 fw)
WIMA	Madison, WI	100 (86 + 14 fw)

**Table 4. Regional high counts for the 99th (1998-1999)
Christmas Bird Count**

Region	# of CBC's	Highest Count (species total)
St. Pierre & Miquelon	1	St. Pierre & Miquelon (43)
Newfoundland	10	St. John's (68)
Nova Scotia	14	Halifax--Dartmouth (117)
Prince Edward Island	2	Hillsborough (50)
New Brunswick	4	Grand Manan Island (54)
Quebec	23	Quebec (68)
Ontario	88	Blenheim (111)
Manitoba	21	Cypress River—Spruce Woods (43)
		Winnipeg (43)
Saskatchewan	7	Saskatoon (44)
Alberta	24	Calgary (63)
British Columbia	48	Vancouver (142)
		Victoria (142)
Northwest Territories	1	Yellowknife (11)
Yukon Territory	3	Whitehorse (21)
Alaska	33	Kodiak (83)
Maine	22	Greater Portland (92)
New Hampshire	14	Coastal New Hampshire (108)
Vermont	17	Ferrisburg (80)
Massachusetts	31	Cape Cod (136)
Rhode Island	3	South Kingstown (131)
Connecticut	16	New Haven (120)
New York	65	Montauk (138)
New Jersey	28	Cape May (153)
Pennsylvania	65	Southern Lancaster County (111)
Delaware	5	Rehoboth (136)
Maryland	23	Ocean City (155)
District of Columbia	1	Washington (126)
Virginia	38	Cape Charles (166)
North Carolina	41	Southport, Bald Head, & Oak Islands (162)
South Carolina	17	Hilton Head Island (174)
Georgia	18	Glynn County (145)
Florida	60	Zellwood—Mt. Dora (174)
Ohio	51	Millersburg (91)
West Virginia	14	Charles Town (81)

Kentucky	11	Louisville (88)
Tennessee	23	Reelfoot Lake (111)
Alabama	11	Gulf Shores (141)
Mississippi	16	Southern Hancock County (156)
Michigan	51	Rockwood (87)
Indiana	36	Lake Monroe (106)
Wisconsin	38	Madison (95)
Illinois	51	Cypress Creek (97)
		Rend Lake (97)
		Union County (97)
Minnesota	42	Winona (74)
Iowa	25	Keokuk (91)
Missouri	21	Horton--Four Rivers (109)
Arkansas	20	Lake Village (113)
Louisiana	21	Sabine N.W.R. (179)
North Dakota	18	Garrison Dam (56)
South Dakota	14	Pierre (62)
Nebraska	9	Branched Oak--Seward (88)
Kansas	25	Lawrence (98)
Oklahoma	20	Tulsa (116)
Texas	86	Mad Island Marsh (230)
Montana	27	Stevensville (83)
Wyoming	16	Cody (55)
Colorado	34	Penrose (113)
New Mexico	26	Caballo (124)
		Las Cruces (124)
Idaho	23	Nampa (87)
Utah	14	Silver Reef (107)
Nevada	11	Truckee Meadows (96)
Arizona	28	Nogales (150)
Washington	37	Sequim--Dungeness (141)
Oregon	41	Coos Bay (155)
California	112	Orange County (coastal) (214)
Hawaii	8	Honolulu, O'ahu (51)
Guam	2	Southern Guam (27)
Saipan	1	Rota (35)
Mexico	13	Yecora, Sonora (184)
Belize	3	Belmopan (241)
Costa Rica	3	Monteverde (343)
Panama	4	Atlantic Canal Area (338)
Colombia	2	Sabana de Bogota (125)
Ecuador	1	Mindo--Tandayapa (308)
Peru	1	Rio Orosa, Loreto (125)
Chile	1	Senda Darwin Station, Isla Chiloe (59)
Brazil	2	Itirapina, Sao Paulo (166)
Trinidad	1	Trinidad (198)
Bahamas	1	New Providence Island (95)
Dominican Republic	2	Salinas--Bani (64)

Puerto Rico	4	Cabo Rojo (102)
Virgin Islands	2	Tortola, BVI (57)
Bermuda	1	Bermuda (99)

Table 5. Selected species sightings, 99th (1998-1999) Christmas Bird Count		
	# Counts	# Birds
Grasshopper Sparrow	(cw = count week)	
State/Prov		
New Hampshire	1	1
Massachusetts	1	1
New Jersey	2	2
Maryland	1	1
North Carolina	1	1
South Carolina	1	1
Florida	20	61
Alabama	1	2
Mississippi	1	1
Louisiana	1	1
Texas	32	190
New Mexico	1	7
Arizona	5	112
California	2	2
Totals: 14	70	383
Bohemian Waxwing	#Counts	#Birds
State/Prov		
Newfoundland	5	322
Nova Scotia	4	335
Prince Edward Island	1	26
Quebec	3	805
Ontario	28	6315
Manitoba	17	4676
Saskatchewan	6	11,559
Alberta	17	20,737
British Columbia	27	5687
Yukon Territory	1	30
Alaska	7	5253
Michigan	8	1920
Wisconsin	9	494
Minnesota	11	3345
North Dakota	9	258
South Dakota	4	3544
Montana	18	3208
Wyoming	11	3084
Colorado	8	185

Idaho	13	804
Utah	2	1063
Nevada	1	40
Washington	6	266
Oregon	6	1096
Totals: 24	222	75052
Cedar Waxwing	#Counts	#Birds
State/Prov		
Newfoundland	1	19
Nova Scotia	8	385
Prince Edward Island	1	25
New Brunswick	1	18
Quebec	8	214
Ontario	59	5038
Manitoba	3	230
Saskatchewan	2	50
Alberta	2	8
British Columbia	13	149
Alaska	1	1
Maine	8	465
New Hampshire	10	2164
Vermont	12	1764
Massachusetts	31	13,288
Rhode Island	3	1038
Connecticut	16	5630
New York	57	6481
New Jersey	25	2947
Pennsylvania	58	6107
Delaware	5	506
Maryland	22	5424
District of Columbia	1	414
Virginia	34	15,390
North Carolina	40	10,008
South Carolina	16	2855
Georgia	16	2959
Florida	56	8027
Ohio	29	2834
West Virginia	11	879
Kentucky	7	233
Tennessee	16	850
Alabama	6	2061
Mississippi	14	1488
Michigan	39	5908
Indiana	18	169
Wisconsin	15	952
Illinois	24	442
Minnesota	19	1329

North Carolina	3	14
South Carolina	1	3
Georgia	1	11
Tennessee	1	2
Michigan	11	220
Indiana	2	29
Wisconsin	8	426
Minnesota	12	658
South Dakota	2	53
Montana	12	244
Wyoming	7	484
Colorado	17	1463
New Mexico	7	232
Idaho	10	285
Utah	9	202
Nevada	3	25
Arizona	2	12
Washington	18	364
Oregon	13	246
California	12	345
Totals: 40	314	17028