



# Audubon Science

## CHRISTMAS BIRD COUNT



LEE KARNIEY/USFWS



DAVE MENKE/USFWS



DAVE MENKE/USFWS



DAVE MENKE/USFWS

### Vision and Goals

The Christmas Bird Count epitomizes Audubon's approach to bird conservation, involving people to help birds. As we provide feedback to Citizen Scientists on the results of their work, we hope to empower them as spokespersons for the birds they watch.

CBC aims to capture an early winter snapshot of bird populations over many decades, and provide birders with an enjoyable social birding experience. Viewed in comparison with other long-term, continent-wide, monitoring programs CBC data give us an understanding of the dynamics of bird populations across North America during the early winter. We are also gaining an understanding of the status of bird populations in Latin America, the Caribbean, and US Minor Outlying Islands.

### Activities

Volunteer Citizen Scientists gather information on bird numbers over a three-week period at the turn of the year, and submit their observations to a nationally based science staff. After review by a panel of regional experts, we make the cumulative data set available to the public and researchers for review and scientific study.

The Christmas Bird Count's birth on Christmas Day of 1900 with 27 observers in 25 locations across Canada and the United States the Count has grown to include well over 50,000 counters at 2000 locations each year from above the Arctic Circle to the waters of the Drake Passage off Tierra del Fuego.

Only in recent years, with the acceptance of Citizen Science datasets, have the contributions of the CBC database and other Citizen Science programs really added to our understanding of the distribution and status of bird populations across North America.

### Accomplishments

Born of the budding conservation ethic at the beginning of the 20th Century, the CBC was unique in that observers not only noted each species they encountered during their time in the field, but also how many of each species they saw-and the time they spent counting birds. In 2007/2008, as we hold the 108th CBC we add to the Count's standing as the longest running Citizen Science program in the world.

PROMOTING A CULTURE OF CONSERVATION BY CONNECTING PEOPLE WITH NATURE

AUDUBON SCIENCE PROGRAMS >> IBAS >> WATCHLIST >> BIRDS & AGRICULTURE >> AUDUBON AT HOME >> CITIZEN SCIENCE >> COASTAL BIRD CONSERVATION >> SEABIRD RESTORATION >> INTERNATIONAL

## GOALS

- Engage citizens in gathering information.
- Empower citizens to take action on behalf of places important to them and important to wildlife.
- Foster a new culture of conservation

## ACHIEVEMENTS

- Transferred the entire CBC data set onto a publicly available computer in a form that enabled people to work with the information according to their needs.
- Convened an independent review of the CBC by professional scientists.

## FUTURE

- Continue to extract long-term trends from the CBC database.
- Implement recommendations of the CBC review panel.

## HOW YOU CAN HELP

- Offer your time and skills.
- Make a donation.

“The Christmas Bird Count epitomizes Audubon’s approach to bird conservation, involving people to help birds.”

Geoff LeBaron, National Audubon Society

In 1998, Audubon was able to transfer the entire Christmas Bird Count data set onto a publicly available computer in a form that, for the first time, enabled people to work with the information according to their needs. The costs of the Internet-based presence of the CBC, and the behind-the-scenes cumulative database, were supported by grant sources separate from the CBC participation fees, the latter being introduced in the 1970s to help defray running costs. The initial version of the online CBC database, and its associated data entry facility, were a very successful first step. Now the continued development of the vital Internet presence for the CBC requires major new funding for its improvement and maintenance.

Another leap forward in 2003 was the convening of an independent review of the Christmas Bird Count. Professional scientists considered at length the strengths of, and the challenges to, the CBC. The group endorsed the Count and its value to ornithology and Citizen Science, and our challenge is to implement the recommendations of the panel’s report, published in the 104th Christmas Bird Count summary issue of *American Birds*. Implementation of the panel’s findings will increase the value of the count in providing information on bird population trends. Specific suggestions include an improved and expanded display of the results for the general public, continued checking for errors, embellishment of weather and effort data, inclusion of counts that are currently missing, and partitioning of data within each circle. These are all high-priority recommendations, and we are seeking funds to implement them as a top-level activity for Audubon Science.

Researchers have recently completed the first large-scale analysis combining CBC data with those from the Breeding Bird Survey, and the ensuing new trend data resulted in the new Audubon WatchList for 2007. Future research will delve into the effects of climate change on North America’s avifauna. Please find more in-depth information in the companion pages entitled *State of the Birds*, *Audubon WatchList*, and *CBC Analysis*.