



Audubon

Citizen Science and Bird Conservation

An Overview of Audubon's Long-Range Commitment

Greg Butcher

Since adopting its long-range plan about eight years ago, Audubon has made key new investments in citizen science and bird conservation. The Christmas Bird Count has been one of the leading projects receiving strong improvements during this period, but Audubon has been doing important work as well with the WatchList, the Important Bird Areas program, BirdSource, the Great Backyard Bird Count, and eBird. You can visit the web sites listed in the accompanying sidebar for more information on each of these programs.

Putting the CBC Online

The Christmas Bird Count (CBC) is the oldest and largest citizen science event in the world. As part of Audubon's rededication to its roots, we have invested considerably in the CBC over the past five years, primarily by computerizing and making available all 103 years of data and by creating online processes for entering and editing each year's CBC data.

We plan to continue this investment over the next few years by seeking a scientific review of the CBC, by working with count compilers and regional editors to clean the database of any errors that may have accumulated, and by setting up the database for routine analysis of bird population trends, comparison with trends generated from the Breeding Bird Survey, and increased use for conservation research (West Nile virus, global warming, and similar events likely to cause population impacts).



Christmas Bird Count participants in a typical northern CBC setting, on the Northampton, Massachusetts, CBC. Photo/Geoffrey S. LeBaron

From the Blue List to the WatchList

At the same time that we are increasing the value of the CBC, Audubon is investing in other bird conservation and citizen science activities. A major example is the WatchList. Audubon published its first WatchList in 1996, continuing the tradition of the Blue List that Audubon published from 1971 through 1986. The Blue List was based on subjective judgments by birders across North America, but the WatchList is founded on a quantitative assessment of population trends, population and range sizes, and threats, based whenever possible on data from the Breeding Bird Survey.

The 1996 WatchList was built largely from an analysis designed and organized by Partners in Flight (PIF), a coalition of federal, state, university, and nongovernmental organizations that includes Audubon. Since that time, species assessments have also been done by Waterbird

Conservation for the Americas and the U.S. Shorebird Conservation Plan (and re-done by PIF), and these assessments provide a strong foundation for the 2002 Audubon WatchList. (The list of Birds of Conservation Concern [BCC], created by the U.S. Fish and Wildlife Service, is based on these species assessments as well—differences between the BCC list and the WatchList are primarily due to different emphases placed by different review teams.)

A major source of information for the WatchList is the Breeding Bird Survey. We plan a similar analysis of the CBC to supplement data from the BBS and to document winter conservation responsibilities.

Saving Important Bird Areas

Currently, Audubon's major bird conservation commitment as a partner-designate of BirdLife International in the Western

Hemisphere is the Important Bird Areas (IBA) program. Audubon has active IBA programs in 46 states and has already identified more than 1500 IBAs across the United States. A complete suite of IBAs has been identified in 11 states, and four books summarizing state IBAs have been published. Hundreds of people have nominated IBAs, hundreds serve on state and national IBA committees, and more than 6000 people are already involved in conservation activities at IBAs.

IBAs are discrete areas that support important populations of WatchList species, large concentrations of birds, or a wide variety of species. We urge you to nominate potential IBAs in your state to your state IBA coordinator or to Bird Studies Canada (see the accompanying sidebar for the web addresses). Inventory data are needed for most of the IBAs in the United States, and monitoring of bird populations at IBAs will be an increasing focus at Audubon over the next few years—we will need your help! Audubon will be promoting conservation activities at IBAs and adoption of IBAs by local Audubon chapters, Audubon Centers and other nature centers, and bird clubs. Bird population monitoring will be vital to ensure that the conservation activities are successful in maintaining or increasing populations of target species at the IBAs.

BirdSource and eBird

About six years ago, Audubon and the Cornell Laboratory of Ornithology combined forces to create BirdSource, a web site for projects that track bird populations. A great many projects are featured at the site, including the CBC, Project FeederWatch, and the Great Backyard Bird Count (GBBC).

The GBBC began in 1998 as a project to track common backyard birds during a weekend in February, but right from the start birders wanted to report all birds present in the United States and Canada during the count. Thus, we received more than 50,000 checklists in four days this year with validated reports on 512 species and more than 4 million individual birds. The data offer a nice counterpoint to the CBC, providing an end-of-winter view of birds that follows the CBC's beginning-of-winter view.

The GBBC is designed to report and map birds by the postal code in which they are seen. Participants can con-

Log on for More Information

Audubon: www.audubon.org

Bird Studies Canada: www.bsc-eoc.org

BirdLife International: www.birdlife.net

BirdSource: www.birdsource.org

Breeding Bird Survey: www.mp2-pwrc.usgs.gov/bbs

Christmas Bird Count: www.audubon.org/bird/cbc

eBird: www.ebird.org

Great Backyard Bird Count: www.birdsource.org/gbbc

Important Bird Areas (Canada): www.ibacanada.com

Important Bird Areas (United States): www.audubon.org/bird/iba

North American Bird Conservation Initiative: www.nabci.org

Partners in Flight (Canada): www.cws-scf.ec.gc.ca/birds/lb_ot_e.cfm

Partners in Flight (United States): www.pif.org

U.S. Shorebird Conservation Plan: <http://shorebirdplan.fws.gov>

WatchList: www.audubon.org/bird/watchlist

Waterbird Conservation for the Americas: www.nacwcp.org

tribute a report each day for an individual location and multiple reports a day if they visit multiple locations. Both casual reports and complete lists are accepted (and identified as such). Participants record information on effort and weather, as well as numbers of birds seen. Tables report the results by state, by city, and by species. North American and regional maps of each species are available for each of the past five years and in an animation of the past four years. Visit the web site (see the accompanying sidebar) to check out your favorite species.

The program has shown that we can create tables and maps in real time for any bird seen anywhere in the United States and Canada over a

four-day period. A natural follow-up to the GBBC is eBird, a program that allows birders to record all the birds they see every day of the year (and also to input prior records).

A major goal of eBird is to record data in the same way that birders collect it and to make it available for analysis—by birders and also by scientists and conservationists. Thus, eBird tries to alter birder behavior as little as possible. Birders can identify their own favorite birding locations on a map, or they can record their sightings at “hotspot” locations or IBAs that have already been identified. Birders are asked to report their birding effort and the numbers of birds seen at each location, just as they do on a CBC.

Data in eBird is most valuable when reported from discrete locations best covered on foot, but eBird can also record data from larger areas that are included in car trips. We hope that you will decide to make eBird a regular part of your birding and that you will provide feedback to improve the web site and underlying database.

State and Local Efforts

Of course, lots of citizen science and bird conservation activities are happening in Audubon chapters, centers, sanctuaries, and state programs, and in the Seabird Restoration, Audubon at Home, and Latin America and Caribbean programs, so the above is meant to introduce you to a few of Audubon's general interest projects. Explore the Audubon and BirdSource web sites to learn more about Audubon, bird conservation, and citizen science.