

Resources for Teaching with Bird Data

Citizen Science Projects and Volunteer Monitoring Efforts

Contribute your bird sightings or analyze data collected at large spatial and temporal scales. Learn about seasonal or species-specific efforts at: www.cornellcitizenscience.org

eBird

www.ebird.org

A real-time, online checklist program to track your bird sightings and provide visualizations of species abundance and distribution, as well as dynamic maps tracking migratory patterns. Report or explore any bird sighting, anytime, anywhere – worldwide. Learn about dynamic maps at: <http://ebird.org/content/ebird/about/occurrence-maps>

Project FeederWatch

www.feederwatch.org

Periodically count the birds that visit your feeders from November through early April and submit data to help scientists to track broad-scale movements of winter bird populations. Read summaries of annual trends and visualize bird distribution and abundance data.

Great Backyard Bird Count

www.birdcount.org

An annual four-day event in mid February to count birds in the United States and Canada. Enter your data online, then view maps, graphs, and summaries—and find out what scientists are learning from the results.

Christmas Bird Count

<http://birds.audubon.org/christmas-bird-count>

Every year since 1900, volunteers organize to count birds in their region on one day between December 14 and January 5. To participate, check with your local Audubon chapter or bird club. Spreadsheets of historical data can be downloaded from the site.

NestWatch

www.nestwatch.org

Put up nest boxes or report data on nests you find, from location, habitat, species, and number of eggs to number of fledglings. Download data spreadsheets or use interactive Google maps for your own analyses of factors like clutch size and first egg-laying dates.

Breeding Bird Atlas of New York State

www.dec.ny.gov/animals/7312.html

A comprehensive, statewide survey designed to reveal the distribution of breeding birds. New York is the first U.S. state to have conducted two atlas projects: 1980-1985 and 2000-2005. Color maps for 250 species show current statewide bird distributions and changes over the twenty-year period. Breeding Bird Atlas data for other states and Canadian provinces can be found at: www.pwrc.usgs.gov/bba/

Breeding Bird Survey

www.pwrc.usgs.gov/bbs/

An annual monitoring program to track the status and trends of North American bird populations. Since 1966, skilled participants have collected data along roadside survey routes in the U.S. and Canada during the height of the breeding season. View estimates of population trends for 400+ species and download relative abundance data.

Bird Point Count Database

www.pwrc.usgs.gov/point

A searchable repository for data from standardized bird point counts conducted anywhere in North America. As well as being the official site for National Wildlife Refuge bird surveys, the Bird Point Count Database is open for use by the public. The site can accommodate small differences in protocols and also allows users to submit vegetation information.

Multimedia Resources**Bird Cams**

<http://www.allaboutbirds.org/page.aspx?pid=2422>

Connect to birds up close, as they court, mate, lay eggs, raise young, and take their first flights. Depending on season, these high definition Livestream channels may be featuring Red-tailed Hawks, Great Blue Herons, American Kestrels, Ospreys, Pacific Loons, and more, with active chat rooms and Twitter feeds. Archived footage from 2000-2011 nesting seasons is also available at: <http://watch.birds.cornell.edu/nestcams/camera/archive>

Macaulay Library

www.macaulaylibrary.org

The world's largest online archive of animal behavior sound and video recordings, including birds, insects, fish, frogs, and marine and terrestrial mammals. Search for recordings by taxonomic level, common or scientific name, geographic area, or keyword. A QuickTime plug-in lets you visualize sounds from the streaming video and audio files. Download compilations at: www.macaulaylibrary.org/products/index.do or from iTunes.

The Birds of North America Online

www.bna.birds.cornell.edu

The definitive resource on North American bird species, providing comprehensive, up-to-date life history information for each of the 716+ species of birds breeding in the U.S. and Canada. You may already have access via your local library or if you are a member of the American Ornithologists' Union. Includes photographs, videos, sounds, and spectrograms.

All About Birds

www.allaboutbirds.org

Written in a fun and publicly accessible style, All About Birds lets you quickly find the life history and identification information you need – and it's free. The most frequently visited bird site on the web, it's been recently revised with new sections on building your bird identification skills, complete with videos. With an online field guide complete with sounds and videos from the Macaulay Library, it just might replace your paper guides.

Neotropical Birds

www.neotropical.birds.cornell.edu

A free and authoritative resource for life histories of Neotropical birds. Encompasses all bird species that regularly occur in the Neotropics, from Mexico and the Caribbean south to southernmost South America. Individuals and classes can contribute to this resource by submitting bird species accounts, multimedia, and links to related websites.

Visualization and Analysis Tools**Raven**

www.RavenSoundSoftware.com

A software program for the acquisition, visualization, measurement, and analysis of sounds. Raven Lite is a free desktop software program that lets users record, save, and visualize sounds as spectrograms and waveforms. RavenViewer is a free browser plug-in which provides real-time visualizations of streaming sounds in the Macaulay Library.

Science Pipes

www.sciencepipes.org

Science Pipes is an environment in which students, educators, resource managers, and scientists can easily create and share custom analyses and visualizations of biodiversity data. It currently allows access to data from eBird, ProjectFeederWatch, and the World Wildlife Fund, and will soon provide access to other ecological data for use in education.

BirdVis

www.birdvis.org

Visualize and examine bird populations and habitat use in depth, using software tools and explanatory models built to extend eBird sightings. Available for Mac OS X.

Birding Apps**BirdsEye and BirdLog**

<http://birdseyebirding.com/>

BirdsEye is guides you to the birds you want to see, using your phone's GPS and eBird data. BirdLog is the first mobile app to allow real-time eBird data entry. For iPhone and Android.

Bird Listing iPhone App Reviews

www.birderslibrary.com/features/bird_listing_iphone_apps.htm

Record which species and how many you see while you're out in the field, whether for your life list or later entry into eBird. Apps reviewed here include Birdcountr, Birdwatcher's Diary, and My Bird Observations.

Bird Guide iPhone App Reviews

www.birderslibrary.com/features/iphone-bird-guide-comparison.htm

Digital field guides with images, sounds, and range maps, to help in field identification of birds. Apps reviewed here include Audubon Birds, iBird, National Geographic's Handheld Birds, Peterson Birds of North America, and the Sibley eGuide to the Birds of North America.