

CONSERVATIONIST FOR KIDS

New York State Department of Environmental Conservation

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Conservationist for Kids

Supplement for Classroom Teachers – Birds are Cool!

Understanding Birds

For centuries, scientists and everyday people have been very interested in birds and have wanted to learn more about them. From most birds' ability to fly to their laying of eggs, birds have long held our fascination. They can be an important tool in the study of biology, ecology, and climate change, and are also great examples of the vast biodiversity that exists. Approximately 10,000 species of birds exist worldwide, ranging from the ruby-throated hummingbird, which weighs 0.1-0.2 ounces and is only about 3 inches long, to large birds of prey such as the California condor, which weighs 15-25 pounds and has a wingspan of 9 feet. Birds come in many sizes, shapes, and colors, and can be used to discuss evolution and adaptation.

All birds face a variety of challenges, although migratory birds face even more. They rely on suitable habitat and food supplies at both ends of their journey, as well as at resting points along the way. For some species, the migration may be only a few hundred or thousand miles, but, for others, it can be halfway around the globe. Along the way, birds face danger from pollution, collision with buildings, extreme weather, predators, and a host of other threats. Learning more about them and the dangers they face can help both scientists and students get a better understanding of ways to help birds.

As birds are found on every continent and in every habitat type, from the Arctic to Antarctica, they are an excellent indicator of ecosystem health. Changes in reproductive success, population fluctuations, and health can signal problems in the greater environment. Many citizen science projects allow for classroom participation and are also activities that students and their families can do at home. By learning more about their local birds, they help scientists increase their knowledge, which can lead to better management of environmental issues.

This Issue's "Outside Page"

The "Outside Page" in this issue of *Conservationist for Kids* encourages students to take action at home to make their local environment better for birds and other wildlife. From planting native species in flower gardens to including a source of water and supplemental food, even the smallest yard can be made more bird friendly. Putting up a bird house is a good way to enhance a yard or park and to study and learn about birds. Plans for building a bluebird nest box are included for students interested in this activity.

Teacher Workshops

For teachers who have participated in a **Project WILD** or **Project Learning Tree (PLT)** workshop, the activities listed below complement this issue of *Conservationist for Kids*. Project WILD also offers an entire curriculum about birds called **Flying WILD**. Visit www.dec.ny.gov/education/1913.html for information about workshops and how to obtain curriculum and activity guides.

Project WILD: Everybody Needs a Home
Birds of Prey
Owl Pellets
Adaptation Artistry

PLT: Birds and Worms
Are Vacant Lots Vacant?
Tropical Treehouse

Conservationist for Kids and an accompanying teacher supplement are distributed free of charge to public school 4th-grade classes in New York State three times per school year (fall, winter and spring). If you would like to be added to or removed from the distribution list, need to update information, or if you have questions or comments, please e-mail the editor at KidsConservationist@dec.ny.gov or call 518-402-8047. Limited quantities of some back issues are also available on request. The full archives can be found online at www.dec.ny.gov/education/100637.html



Department of
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Conservation

Supplemental Activities for the Classroom

Audubon Adventures

Audubon Adventures is a program of the National Audubon Society. Geared toward students in grades 3-8, it is designed to introduce them, their classrooms, and their families to the natural world. The lessons are science based and use non-fiction reading and outdoor activities for encouraging students to care for the planet by learning how to help birds and other wildlife. There are currently almost 40 different topics available, covering a wide range of different animals and habitats. To learn more or to purchase classroom activity sets, visit the Audubon Adventures website at www.audubonadventures.org.

For the Birds

Audubon New York's *For the Birds!* is an education program that uses birds to teach students an appreciation of nature and environmental awareness. Although first started in New York City in 1997, the program is now available in other cities around New York State. Programs include 4, 8, or 16-week sessions and are targeted toward students in grades 2-4. Classes are taught by Audubon staff and volunteers and emphasize local birds and habitats. The program includes classroom lessons, outdoor activities, and a class project to benefit their local environment. To learn more or request a program for your classroom, visit <http://ny.audubon.org/education/birds>.

BirdSleuth

BirdSleuth, a program of the Cornell Lab of Ornithology, is an inquiry-based curriculum that engages students in real scientific study and data collection. A series of curriculum plans is available for students in grades K-12. By using citizen-science projects as a basis for many of the lessons, students learn science and also contribute valuable data to scientists who study birds and the environment. Some materials are available as free downloads, and additional curriculum sets can be purchased. To learn more, visit www.birdsleuth.org.

Do you have an interactive white board in your classroom?

If you use a SMART Board or similar interactive white board or projection system in your classroom, consider downloading a PDF of *Conservationist for Kids* and using it along with the printed copies enclosed in this mailing. This issue and *all of our back issues* are available at www.dec.ny.gov/education/40248.html.

Online Resources

DEC Birds www.dec.ny.gov/animals/271.html

DEC Biodiversity and Species Conservation www.dec.ny.gov/animals/279.html

DEC Education www.dec.ny.gov/26.html

DEC Watchable Wildlife www.dec.ny.gov/outdoor/55423.html

All About Birds - Cornell Lab's Online Guide to Birds and Birdwatching www.allaboutbirds.org

American Bird Conservancy www.abcbirds.org

American Birding Association <http://aba.org/>

Audubon New York <http://ny.audubon.org/>

Bird Education Network www.birdeducation.org

BIRDNET – Ornithological Council www.nmnh.si.edu/BIRDNET/index.html

BirdWatching www.birdwatchingdaily.com

Bird Watcher's Digest www.birdwatchersdigest.com

Cornell Lab of Ornithology www.birds.cornell.edu

International Migratory Bird Day www.birdday.org

National Audubon Society www.audubon.org

New York State Bluebird Society <http://nysbs.org/>

New York State Ornithological Association <http://nybirds.org/index.html>

New York State Young Birders Club www.nysyoungbirders.org/

North American Bluebird Society www.nabluebirdsociety.org/

Partners in Flight www.partnersinflight.org/

Smithsonian Migratory Bird Center <https://nationalzoo.si.edu/scbi/migratorybirds>

U.S. Fish & Wildlife Service Migratory Birds Program www.fws.gov/birds

Wild Birds Unlimited - Educational Resources www.wbu.com/education/

Young Birders Network <http://ebird.org/content/ybn/>