

NEW YORK STATE Conservationist



HABITAT
is where it's at!



Welcome
to

NEW YORK STATE
Conservationist

for
Kids!

Want to receive
Conservationist
for Kids
at home?

In this issue:

**We'll explore some of
the wildlife habitats we
have in New York and
how we can help ensure
they continue to be
home to many kinds
of wildlife.**

**Subscribe to
Conservationist
magazine!**

You'll get six issues
of the award-winning
Conservationist
magazine each year, plus
Conservationist for Kids in
the October, February
and April issues.
Call 1-800-678-6399
to subscribe.



Find us at
www.dec.ny.gov/education/40248.html

Contact us at
Conservationist for Kids
625 Broadway
Albany, NY 12233-4500

or e-mail us at
cforkids@gw.dec.state.ny.us

New Yorkers who enjoy the outdoors
can support the improvement of wildlife
habitat and access for outdoor recreation
by purchasing a \$5 Habitat & Access
Stamp. Learn more at
www.dec.ny.gov or ask
about it where hunting and
fishing licenses are issued.



Cover photo: Michael Hayden - Native white-tailed deer and a great blue heron wade through non-native pink water lilies.
Unless otherwise attributed, all photos by DEC staff.



is where the habitat is.

Habitat is the area in which an animal normally lives—where it finds what it needs to survive. The amount and quality of each part of the habitat have to be just right, and they have to be arranged so that the animal can use them. If one component is out of balance, the entire puzzle may not work as it should for that species of animal.

FOOD

The right kinds, in sufficient amounts and of good quality



Grain, flowers, mice, nuts, insects, rabbits

Not too much and not too little; clean

WATER



SPACE

Enough room to prevent overcrowding while sharing the area with other animals



A place to be safe and to raise young near food and water

SHELTER



Eaglet (young eagle)

Habitats are often named for the main plants or features.

FORESTS have TREES

GRASSLANDS have GRASSES

WETLANDS have WATER-TOLERANT PLANTS

New York State has many different kinds of habitats, including rivers and lakes, marine waters, wetlands, grasslands, shrublands, alpine areas, and different kinds of forests. Even cities offer wildlife habitat. Each habitat features different kinds of plants and supports different kinds of animals.

Forests

are known for their trees: coniferous, deciduous, or a combination of both. Other plants include shrubs, small trees, and herbaceous (non-woody) plants. Each layer of the forest, from the tree tops (canopy), to the shrubs and other plants along the forest floor, and the area in between (understory), provides for the needs of different kinds of animals.

When Europeans arrived in what is now New York State, the land was mostly forested. As the land was settled, much of the forest was cleared for farms. Forest habitat was lost, along with the animals that lived there. Over time, some of the farms were abandoned and forests grew back, with the animals that rely upon this habitat returning as well. Today, most of New York is forested again.

Young forests

are important habitat for many woodland animals.

Wildlife to watch for:

- gray and red squirrels
- chipmunk
- scarlet tanager
- woodpeckers
- salamanders
- toads
- wood frog
- ruffed grouse
- deer



DEC - Vicki Cross

Grasslands

are wide open areas where herbaceous plants, such as flowers and grasses, are found. If left alone, shrubs and trees will begin to grow, and this habitat will slowly change to forest. Grasslands were once more common, maintained by farming practices (haying). They are becoming scarce as farms disappear and these grassy areas grow back up into trees. Many grassland birds require large open spaces. As big areas of grasslands are lost due to natural changes and human development, so are the homes of these species.

Wildlife to watch for:

- woodchuck
- eastern bluebird
- white-footed mouse
- meadow vole
- bobolink



WOODCHUCK



BOBOLINK

Eric Dresser

Ground-nesting birds and burrowing animals find safety and cover among the dense grasses.



GREAT BLUE HERON

Great blue herons hunt in wetlands.

Wildlife to watch for:

- fish
- beaver
- dragonflies
- caddisflies
- turtles
- ducks
- herons
- muskrat
- river otter
- raccoon
- mink
- osprey

Freshwater habitats

have one thing in common: water. Swiftly moving waters (rivers and streams) and calm waters (lakes, ponds, and wetlands) support different kinds of aquatic wildlife, plus animals visiting to drink and to forage. Plants include cattails, bulrushes, algae, water lilies, duckweed and other water-dependent species.

Over hundreds of years, small ponds may naturally fill in, becoming wet meadows and finally forests. People change these habitats, too. Some wetlands have been filled in or drained to make them more suitable for farming or building. New York's wetlands laws protect freshwater and tidal wetlands, preserving these important habitats.

Urban areas

provide habitat for many kinds of wildlife. Tall buildings serve as cliff-type habitat for pigeons and falcons. Crows are common. Trees along city streets offer limited food and shelter for most urban wildlife. For more cover and food, wildlife may turn to the parks, cemeteries and other green spaces, large and small, scattered around our cities. Truly wild natural spaces, undisturbed by people, are few and far between.



PEREGRINE FALCON

DEC - Barb Loucks

Wildlife to watch for:

- raccoon
- gray squirrel
- peregrine falcon
- red-tailed hawk
- cottontail rabbit
- mice
- fox
- songbirds (robins, sparrows)

Many people living in cities help wildlife. We put out bird feeders and plant wildlife gardens that attract butterflies and birds. Sometimes, if garbage isn't properly stored, we provide food for wildlife when we did not intend to.



RED-BELLIED WOODPECKER

DEC - Frank Herec

CHANGE HAPPENS

Habitats can change over time, sometimes over many years, and sometimes very quickly. When the changes take place gradually and go through a number of different stages, we call it “ecological succession.” Sometimes, natural events interrupt these changes and the habitat returns to an earlier stage, perhaps even a different type.

When a habitat changes to another type, the animals that needed the earlier habitat will no longer be able to call it home. Other animals—those that need that new type of habitat—will move in because the area now meets their needs.

What’s bad for some is good for others.



BEAVER



Change can take place naturally:

A beaver dams a swift stream, flooding the surrounding forest and creating a quiet pond. Over time, the beaver leaves and the dam breaks, turning the quiet pond into a wet meadow, and then eventually back into a forest.

People can cause habitats to change:

Students plant a garden with flowers that butterflies feed upon.



TIGER SWALLOWTAIL

Clyde Cohen



DEC - Kitty Rusch



WILD TURKEY

DEC - Frank Herec

If habitat is restored, wildlife may be brought back into an area where they used to live (reintroduced), as happened with wild turkeys. New York’s turkey population is now abundant.



SHORT-EARED OWL

Jeff Nadler

An open field or grassland provides good habitat for short-eared owls. As shrubs and trees grow in the field, it becomes a forest. A forest habitat is ideal for woodpeckers.



PILEATED WOODPECKER

Gerry Lemmo



Timber harvest



Prescribed burns are sometimes used to maintain habitat. These fires are set on purpose and supervised from start to finish by professionals. Fires are one technique used to maintain the habitat of the endangered Karner blue butterfly.

Responsible timber management can return succession to an earlier stage and ensure a healthy forest habitat for a wide range of species. Healthy forests feature trees of varying ages and are able to fend off pests and diseases.

PEOPLE HELPING WILDLIFE

If left alone, habitats will change over time. Some species may disappear if their habitat changes a lot—or vanishes altogether—and they have nowhere else to go. People can help wildlife by taking good care of all the different kinds of habitat.

Biologists and foresters work together to manage habitat to make it more suitable for particular wildlife species. They observe what happens to wildlife in good quality habitats and try to create the same conditions elsewhere, mimicking nature. They also help landowners make wise choices about how to care for their land for the benefit of wildlife.

Unwelcome wildlife or plants,

especially invasive species, may be removed to preserve habitat. Garlic mustard and purple loosestrife crowd out native plants and are not good food sources for native wildlife.

How will you help wildlife and the spaces that are home to them?

Biologists, foresters and others,

including farmers and other private land owners, work together to maintain grasslands, wetlands, forests and other habitats across New York State.



Pulling garlic mustard



Outdoor Explorer

Take a walk outdoors to look for signs that habitat has changed over time. Follow a trail through a field and into a forest. Is the change from field to forest quick, or is it gradual? Why? (HINT: Is the forest beside a mowed area or a wild area?) As you walk through the woods, do you see signs that it was once a field? (HINT: Watch for old fences or stone walls and the stone foundations of buildings.)

Watchable Wildlife

Watchable Wildlife sites are great places to look for animals. Go to www.dec.ny.gov/outdoor/55423.html to find a designated Watchable Wildlife site near your home or school. Is there watchable wildlife in your yard or neighborhood? Keep a journal with a record of what you see. Include drawings or photos as well as your written observations. Does the time of day or the time of year seem to affect what kinds of animals you see?

Create Wildlife Habitat

You can create habitat for wildlife at home or at school just by leaving a corner of the yard to go wild, or by planting a wildlife garden. There are flower gardens that attract butterflies, and seed gardens that attract birds, even gardens for toads. As you plan your garden, think about how it will provide all of the components of good habitat: food, water, shelter and space. There are lots of ideas from the National Wildlife Federation at www.nwf.org/Get-Outside/Outdoor-Activities/Garden-for-Wildlife.aspx.



For More Information

Living with Nature and Wildlife: Doing Our Part by Delwin E. Benson (Wildlife Management Institute, Washington D.C., 1999)
The Magic School Bus Hops Home by Patricia Relf (Scholastic, Inc., New York, 1995)
www.dec.ny.gov/animals/279.html DEC's Biodiversity & Species Conservation
www.dec.ny.gov/animals/327.html DEC's Return a Gift to Wildlife
www.dec.ny.gov/animals/57844.html DEC's New York Nature Explorer
www.dec.ny.gov/outdoor/55423.html DEC's Watchable Wildlife
www.dec.ny.gov/education/72444.html DEC's Kids GO (Get Outside) Nature Activities

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

New York State *CONSERVATIONIST FOR KIDS* Volume 5, Number 3, Spring 2012

Andrew M. Cuomo, Governor of New York State

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Joe Martens, Commissioner

Michael Bopp, Director, Office of Public Affairs

Laurel K. Remus, Director, Division of Public Affairs and Education

DIVISION OF PUBLIC AFFAIRS AND EDUCATION

Ann Harrison, Bureau Chief, Environmental Education

Gina Jack, Environmental Educator

Frank Herec, Art Director



Special thanks to the Division of Fish, Wildlife and Marine Resources



Joe Martens
Commissioner

Conservationist for Kids

Supplement for Classroom Teachers – Habitat is Where It's At!

Habitats

Within an animal's habitat, it finds what it needs to survive: food, water, shelter and space. While there is some overlap, generally different animals are found in each habitat. Fitting together needs with available resources is like a puzzle (as depicted on page 3 of this issue of *Conservationist for Kids*). If the pieces don't fit together, the puzzle doesn't function properly. Habitats change over time. Ecological succession—the orderly and progressive replacement of one natural community by another until a relatively stable community is reached—may occur, or natural events (e.g., forest fire, beaver flooding) or human actions may affect an area. If a habitat changes, it is likely that the animals found there will change as well.

New York State features numerous and varied habitats, from marine to alpine, forest to wetland, rural to urban, and many more. Some wildlife habitats are disappearing from our landscapes, whether by natural forces or because of people. Of special concern are grasslands and young forests. Both support diverse wildlife, and both represent early stages in the process of ecological succession. If left alone, and barring natural disturbances, both will eventually progress to become mature forests and will support the wildlife found within this common habitat. Biologists and foresters work with private landowners and on public lands to manipulate habitat, often mimicking nature, to ensure that all possible habitat types are represented within New York State and support the widest possible range of animal and plant species.

This Issue's "Outside Page"

Activities on the Outside Page (page 8) of this issue of *Conservationist for Kids* show ways in which students can contribute to creating and observing wildlife habitats. Many of the activities are best completed outside the classroom with peers or community groups.

Teacher Workshops

For teachers who have participated in a Project WILD or Project Learning Tree workshop, the activities listed below complement the spring 2012 issue of *Conservationist for Kids*. Visit www.dec.ny.gov/education/1913.html for information about workshops and about how to obtain curriculum and activity guides.

Project WILD:	Project Learning Tree:
Beautiful Basics	Habitat Pen Pals
Classroom Carrying Capacity	The Forest of S.T. Shrew
Oh Deer!	Web of Life
Graphananimal	Schoolyard Safari
Wildlife is Everywhere!	Life on the Edge
Habitatucks	
What's That Habitat?	

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 C4K and using it in your classroom, 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.

Supplemental Activities for the Classroom

Build a Bluebird House

Is your schoolyard good habitat for our state bird, the eastern bluebird? They are found in meadows and open areas if appropriate nesting sites are nearby. Go to www.dec.ny.gov/docs/administration_pdf/c4kBluebirdplan.pdf for building plans, and follow the step-by-step instructions on DEC-TV at www.dec.ny.gov/dectv/dectv79.html to build a bluebird house. Place the completed house in habitat that bluebirds favor, and watch them raise their young year after year.

Habitat Hike

Take your students outdoors to compare and contrast at least two different habitats. Have students record their observations while at each site, then discuss their findings in the classroom. Consider what kinds of plants are present, what kinds of food sources animals may find and where animals will find water and shelter. What kinds of animals do students expect to see? What kinds of animals do they actually see or find evidence of (e.g., scat, feeding sites, nesting/sheltering sites). If no animals are seen, do students have any ideas why? (e.g., too noisy, not enough space) What, if anything, would they do to improve the habitat for wildlife? If one of your locations is a part of the schoolyard, consider working as a class to improve the site for wildlife by planting a wildlife garden or removing invasive plants.

Habitat Dioramas and Fair

Have each student select a habitat found in New York State and construct a diorama in a shoebox depicting that habitat. The diorama should include some of the plants and animals one would find in the habitat, plus sources of food, water and shelter for the animals. Host a "Habitat Fair" during which students show their dioramas to other classes in the school, explaining what a habitat is and why they chose their particular habitat.

Online Resources

Lesson Plans about Habitats:

www.dec.ny.gov/education/36572.html DEC's Hudson River Lesson Plans (science lessons)

<http://education.nationalgeographic.com/education/teaching-resources/>

National Geographic's education portal; search for "habitat" for appropriate lesson plans

www.nwf.org/Get-Outside/Be-Out-There/Educators/Lesson-Plans.aspx National Wildlife Federation

Schoolyard Habitats:

www.fws.gov/cno/conservation/schoolyard.cfm U.S. Fish and Wildlife Service's Schoolyard Habitat Program, including downloadable project guide

www.nwf.org/Get-Outside/Outdoor-Activities/Garden-for-Wildlife/Schoolyard-Habitats.aspx

National Wildlife Federation's Schoolyard Habitat Program, including project guide and lesson plans

www.plt.org/greenworks Project Learning Tree's "Greenworks" grants can be used for habitat projects

General Information about Habitats:

www.dec.ny.gov/lands/4957.html DEC's Urban and Community Forestry information

www.dec.ny.gov/dectv/dectv57.html DEC-TV: "The Urban Forest of New York City"

www.dec.ny.gov/animals/32722.html DEC's Landowner Incentive Program

www.dec.ny.gov/pubs/32891.html DEC's Grasslands Landowner Incentive Program

<http://longislandsoundstudy.net/issues-actions/habitat-quality/the-12-types-of-habitats>

Long Island Sound Study: Habitat Types of Long Island Sound

<http://ny.audubon.org/BirdSci.html> Audubon NY "Birds and Science"

Conservationist for Kids (C4K) and an accompanying teacher supplement are distributed to public school fourth-grade classes three times each school year (fall, winter and spring). If you would like to be added to or removed from the distribution list, if your contact information needs to be changed, or if you have questions or comments, please e-mail the editor at cforkids@gw.dec.state.ny.us

Printable activity sheets and links to other resources are on DEC's website. You will also find back issues of C4K and the activity sheets and teacher supplements associated with each of them. Visit www.dec.ny.gov/education/40248.html.

Subscribers to our e-mail list receive messages from the editor about the magazine plus supplementary materials for educators who use the magazine in classrooms and non-traditional settings. Subscribers also receive information about resources and notification of training opportunities for connecting youth to the outdoors and to environmental issues. Visit http://lists.dec.state.ny.us/mailman/listinfo/conservationist_for_kids to subscribe to our e-mail list.