



Reconnect with your environment

Learn about environmental issues, their effect on your community and actions for your involvement.



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Bird counts help scientists learn how lost habitat and climate change affects birds.

Get ready to calculate for annual bird count

By ANNA MCCARTNEY
Contributing writer

Help assess the quality of our local environment by participating in the Great Backyard Bird Count, which starts on Friday.

This annual four-day event, sponsored by the National Audubon Society and the Cornell Lab of Ornithology, creates a real-time picture of where the birds are across the continent. Anyone can participate, from beginning bird-watchers to experts.

For directions, go to the Great Backyard Bird Count at www.birdsource.org/gbbc.

You'll have more fun taking part in the count by first learning about the birds you're most likely to see. For pictures and information, visit www.birdsource.org/gbbc/kids. At this site, you can take the "Guess who's squawkin" quiz, find special materials for educators and report and track the birds you see.

That said, one of the most exciting ways to connect with the natural world is not on your computer. Bundle up the family and head

out to Shelter 2 at Presque Isle State Park for the Presque Isle Audubon Society GBBC count this Saturday from 9 a.m. to noon. Birders will be on hand to help you identify the birds and give you hints to attract them to your backyard. Dress warmly for this fun wintertime activity. You will also be treated to refreshments, activities for children and a roaring fire. Bring binoculars if you have them. Visit www.presqueisleaudubon.org.

If this isn't enough motivation to support efforts to protect our feathered friends, don't miss the opportunity to learn more about creating a habitat for birds and wildlife on your property at the workshop on Feb. 26. See details in Learn More.

If we all do our part, future generations won't be denied the chance to see and hear what we often take for granted.

ANNA MCCARTNEY, communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at axm40@psu.edu.



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You don't need an area the size of New York's Central Park to improve our local dwindling bird habitat. The Pennsylvania Lake Erie Watershed Association program, Begin ANEW, Reconnecting Neighborhoods to Nature, can help you turn your property into a home for birds and other wildlife and you may even qualify for funding for native trees and landscaping. See story for details.

Empty nesters

Climate change threatens bird habitats, feeding patterns

By ANNA MCCARTNEY
Contributing writer

Birds take flight when they are threatened.

But no matter how fast or high they fly, birds cannot escape from the dangers created by humans.

Bird species, especially migratory ones, rely on diverse ecological habitats and reliable climate signals for successful nesting, feeding and migrating.

Yet disappearing habitats due to deforestation, sprawl, manufacturing and our undying thirst for fossil fuels are forcing birds and other species to adapt to these changes.

Birds are particularly vulnerable to climate change because these changes have already placed them at risk. Currently about 20 percent of bird species are threatened with extinction.

Deforestation, unsound development and fossil fuel extraction have led to habitat fragmentation and a spiraling loss of the natural environment. Problems linked to introduced species, hunting, pollution and contamination mount, yet we remain idle in addressing all of these problems.

Long before our destructive ways, plants and animals of all types have interacted with each other in well-established patterns that depend on specific climate signals, such as temperature ranges and precipitation levels.

But as temperatures increase, both plant and animal species are forced to migrate to higher elevations in search of cooler temperatures. Resources that birds depend on for successful feeding, nesting and migration will no longer be available at the same time of the year. Trends toward warmer springs lead birds to nest earlier. Breeding success could suffer because primary food sources may not be available when nestlings hatch.

Scientists and bird-watchers are already observing changes in range, migration and breeding habits of birds; these changes correlate to temperature increases and/or precipitation changes.

Evidence of climate-driven transformation is evident in the Kenai Peninsula of Alaska where wetlands have been replaced with a dryer, wooded landscape since at least 1950. The loss of wetlands has meant a reduction in habitat for some migratory birds.

North American swallows lay their eggs nine days earlier, a trend associated with increasing air temperatures at breeding time.

Trends in rising monthly minimum temperature in Arizona are causing a similar trend toward earlier egg-laying by Mexican jays.

Migratory birds in southern Wisconsin arrive earlier because ice melts sooner on local lakes because of higher spring temperatures.

People will decide the long term outlook for birds, other wildlife, our children and future generations. The decline of the sound of birds chirping and fluttering outside our windows should be a loud warning call. Isn't it time we adapted our economic behavior by including the cost and risk to the environment and the welfare of other species?

You can help protect birds and other wildlife and the plants and conditions they need to survive. Become informed about the issues. Eliminate or curtail activities that destroy habitats and pollute the environment. Unplug appliances and avoid unnecessary driving by walking, riding your bike or taking public transit. Conserving energy is one of the best ways to cut down on the extraction and use of fossil fuels.

Participate in citizen science projects such as the upcoming Great Backyard Bird Count that can help scientists better understand how our actions and resulting climate change affect birds.

The Pennsylvania Lake Erie Watershed Association offers a program designed to create new habitat for wildlife in the Erie region. Begin ANEW, Reconnecting Neighborhoods to Nature, is open to churches, school districts, organizations, colleges, municipalities and individuals. If you own property in the Presque Isle Bay watershed, you may qualify for free native trees, vegetation and landscaping to create a new habitat. For information about how you can Begin ANEW, visit www.environmenterie.org for details or call 835-8069.

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Because Northern Cardinals have short and round wings, they can't fly long distances and don't migrate.



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Cedar waxwings rely on habitats lush with small fruits and berries.



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Climate change has pushed chickadees and other birds hundreds of miles into Canada.



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Lawn pesticides, especially insecticides, are harmful to robins.

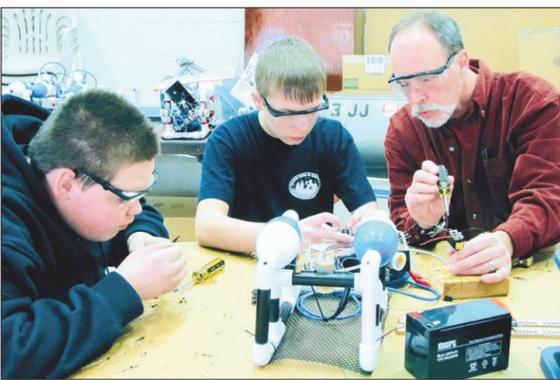


LEARN MORE

What: "Gasland," the Oscar-nominated documentary
Where: Mary D'Angelo Performing Arts Center at Mercyhurst College
When: Wednesday at 2:15 p.m. and 7:15 p.m.
Cost: adults \$6, senior citizens/students, \$5

What: The Great Backyard Bird Count
When: Saturday from 9 a.m. to noon
Where: Shelter 2 on Presque Isle State Park
Cost: Free

What: Landscaping for Wildlife workshop
When: Saturday, Feb. 26, from 8 a.m. to 4:45 p.m.
Where: Tom Ridge Environmental Center, room 112
Cost: \$25 per person, includes continental breakfast, lunch and the book, "Attracting Birds, Butterflies and Other Backyard Wildlife."
Registration: Needed by Feb. 17; limited to 60 participants
For more information, contact: Paul Burroughs 572-0498 or visit www.presqueisleaudubon.org



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Perseus House Maritime Charter School of Excellence students Hunter Littlefield and Aaron Fisher construct an underwater robot with David Boughton, PA Sea Grant Science and Technology instructor.

Robots will test local waters

Forty-six middle school students from the Perseus House Maritime Charter School of Excellence have been busy constructing 23 underwater robotic units since October 2010.

The program, brought to the school through a collaboration with Pennsylvania Sea Grant and developed by the Massachusetts Institute of Technology (MIT), was funded by the Office of Naval Research. The science and technology program called "Sea Perch" involves a basic PVC frame design, propulsion system and

controller. The adapted curriculum incorporates marine engineering themes, including buoyancy, submersible electronics, electromagnetic thrusters and ocean science lessons and applications.

Students have been fully engaged in this hands-on learning experience by soldering, waterproofing and wiring switches. Sea trials are currently planned in the spring for test tanks, pools and Lake Erie. At that time, students will collect water samples for water quality analysis and conduct nearshore surveys.

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Check out these websites to learn more:

www.allaboutbirds.org/guide
www.birdsource.org/gbbc
www.globalchange.gov
www.seagrants.psu.edu

To ensure a future with clean air, water and food, we need to link every aspect of our economic behavior — production, consumption, habitation — with the welfare of other species. Find examples in the newspaper ads, articles and letters to the editor that contain examples of our economic behavior. Then brainstorm ways we can change some of our behaviors to benefit all forms of life. How can your purchases impact the environment and other living species? What habit will you change? Share your thoughts for possible publication in the Your Space feature to nie@timesnews.com.

