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 Learn about environmental issues in your community and how you can get involved.



CONTRIBUTED PHOTO

Register early for the 2016 Environment Erie Bike Around the Bay on May 14. Registration costs more after May 5.

## Register for Bike Around the Bay

By ANNA McCARTNEY  
 Contributing writer

Whether you're an avid cyclist or a family, join hundreds of tristate bicyclists for the 14th Annual Bike Around the Bay on May 14. All rides begin and end on Presque Isle State Park.

The 10-, 30- or 50-mile bike tours highlight the sights and sounds of Lake Erie and Presque Isle, recently voted the "Best Freshwater Beach" in a national newspaper-sponsored poll.

Proceeds benefit Environment Erie's Education Programs.

Registration deadline is May 5.

Registration costs are \$25 for individuals and \$50 for families (three or more members/same household).

Individuals must be pre-registered to guarantee an event t-shirt.

Registration fees are higher after May 5 and on the day of the event.

Register now online at [www.environmenterie.org](http://www.environmenterie.org).

For more information, call 835-8069.

ANNA McCARTNEY, a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at [axm40@psu.edu](mailto:axm40@psu.edu).



U.S. FISH AND WILDLIFE SERVICE

Getting children outside is a great way to learn about frogs, salamanders, other amphibians and reptiles. It's also a good way to join the increasing ranks of citizen scientists who are collecting important observations for the Pennsylvania Amphibian and Reptile Survey. Determining their distribution and status throughout the state is an important first step in protecting these rapidly declining species. Log on to [www.paherpsurvey.org](http://www.paherpsurvey.org) and sign up.

# Silence speaks volumes

## Decline in frog populations tied to environmental health

By ANNA McCARTNEY  
 Contributing writer

A rich symphony of frog calls gives us hope that winter is over.

The familiar sleigh bell-like chorus of spring peepers, the duck-like chuckle of wood frogs, and the long musical trill of American toads are distinctive sounds that these amphibians use to communicate.

Frogs have survived for 250 million years through countless ice ages, asteroid crashes, and other environmental disturbances, yet they may not survive the human era. Since the 1970s the world has lost approximately 200 frog species, and hundreds more face extinction in the coming decades according to research published in the Proceedings of the National Academy of Sciences.

As frog populations decline at these unprecedented rates around the world, their silence conveys an ominous message that something is drastically wrong in the environment.

There are numerous causes for their decline; most are the result of human activities.

These include habitat loss, pollution, over-harvesting, invasive species, climate change and infectious diseases.

"Frogs function as indicators of environmental health, because they spend part of their lives in water as eggs and tadpoles and at least part on land as adults," said Mark Lethaby, curator of the Natural History Museum at the Tom Ridge Environmental Center.

Frogs are both herbivores and carnivores, predator and prey, and they depend on wetlands where the quality of our drinking water is often determined. And like all amphibians, their porous skin can easily absorb toxic chemicals including herbicides, pesticides, pharmaceuticals and other chemicals in the environment. These chemicals have been linked to deformities, developmen-



WWW.SAVETHEFROGS.COM

April 30 is the worldwide Save The Frogs Day. It is the world's largest day of amphibian education and conservation action.



PIETER JOHNSON/University of Colorado at Boulder

A study at the University of Colorado found that nutrient pollution from fertilizers can trigger frog deformities.



COMMONS.WIKIMEDIA.ORG

Frogs are extremely susceptible to environmental threats, because of their porous eggs, semi-permeable skin and because they spend part of their lives in water as tadpoles.

tal problems and death in certain amphibians. One example is Atrazine, the most commonly detected pesticide in rainwater, groundwater and tap water

in the United States. At concentrations as low as 2.5 parts per billion it can turn male frogs into females.

Frogs are also a vital part of the food chain. Adult

frogs eat large quantities of insects, including mosquitoes that can transmit fatal illnesses to humans. They also serve as an important food source to a diverse array of predators.

Thus, the disappearance of frog populations disturbs an intricate food web, and results in negative impacts that cascade through the ecosystem.

Researchers around the world are reporting marked declines in amphibians and reptiles (collectively called herps). Unfortunately not enough is known about their distribution in Pennsylvania. Without this knowledge it's difficult to monitor changes and effectively protect these species.

If you are interested in frogs, salamanders and reptiles, and want to help aid their conservation, you can join the Pennsylvania Amphibian and Reptile Survey and record your observations of these animals.

The Mid-Atlantic Center for Herpetology and Conservation working with the Pennsylvania Fish and Boat Commission and the Department of Conservation and Natural Resources launched PARS in 2013 to create a new amphibian and reptile state atlas.

Find out more about this exciting program on Saturday at 11 a.m. in Room 110 at TREC when Lethaby, who also serves as the PARS northwest regional coordinator, will offer a short PARS introductory presentation. There will also be a program on salamanders followed by a frog walk at the Erie National Wildlife Refuge headquarters at 6:30 p.m. Contact the Refuge at 789-3585 or contact Lethaby at 833-7215 or [mlethaby@verizon.net](mailto:mlethaby@verizon.net) for more information.

Check out the websites below to hear frog calls and to learn more.

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ANDY COLWELL/Erie Times-News

JoAnna Connell School teacher Laurie Hogan works with students in the woods and wetlands behind their school.

## Celebrate Earth Day with JoAnna Connell

By ANNA McCARTNEY  
 Contributing writer

Celebrate Earth Day and welcome spring on Saturday, from 11-2 p.m. at JoAnna Connell School.

Activities and projects for that day will focus on improving the environment in and around the school and the neighborhood. There will be a cleanup of both the wetland and Roma Park. Trees will be planted. Trails will be established in the wetlands and a pollinator garden that includes wildflowers and plants to attract butterflies, and other wildlife, will be created courtesy of Dahlkemper Landscaping. Raised beds will be constructed for a vegetable garden that will be installed later this spring. Also three memorial benches will be installed and dedicated.

Fifth grade Science and Social Studies teacher Laurie Hogan, who is leading these projects, is commit-

ted to helping her students live the science so they can become stewards and vehicles of change in their community.

Hogan and her students are participating in the Pennsylvania Sea Grant Center for Great Lakes Literacy program that builds Great Lakes knowledge by forming ongoing relationships with researchers and environmental partners, and involving students in stewardship activities. For more information about CGLL contact Marti Martz at 217-9011 or [mam60@psu.edu](mailto:mam60@psu.edu).

The school is located at 1820 E. 38th St. in Erie. For more information about the activities that day, call 874-6785.

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Check out these websites to learn more:

- [www.paherps.com](http://www.paherps.com)
- <http://fishandboat.com/frogs.htm>
- [www.naturalheritage.state.pa.us/VernalPools.aspx](http://www.naturalheritage.state.pa.us/VernalPools.aspx)
- [www.savethefrogs.com](http://www.savethefrogs.com)
- [www.seagrant.psu.edu](http://www.seagrant.psu.edu)

Find articles about Earth Day events in your area. Will you be doing anything special in your school or community to protect the environment? Share your events and be sure to include photos. Send them to [axm40@psu.edu](mailto:axm40@psu.edu) for possible publication in the "your space" feature.

