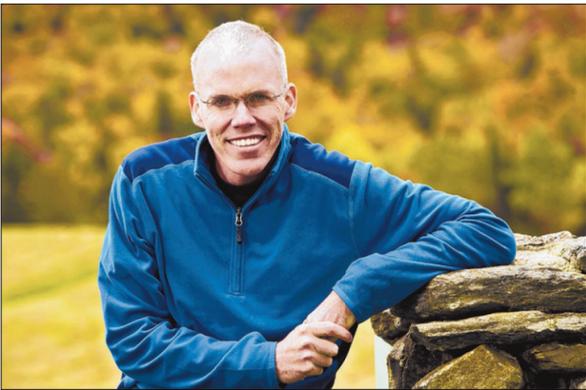




# Reconnect with your environment

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



CONTRIBUTED PHOTO

Noted "green journalist" Bill McKibben will speak about climate change at Allegheny College

## 'Green journalist' to give free talk at Allegheny

By ANNA MCCARTNEY  
Contributing writer

Bill McKibben, renowned author, educator and founder of the grass-roots climate campaign 350.org, will speak at Allegheny College on Thursday at 7:30 p.m. in Shafer Auditorium.

His talk is part of Allegheny's Year of Sustainable Communities theme.

Time Magazine called him the "planet's best green journalist" and the Boston Globe said in 2010 that he was "probably the country's most important envi-

ronmental.

McKibben will speak about climate change science as well as the emerging global activism movement. Attendance is free. However, if you'd like to make a donation at the event, all proceeds will benefit the French Creek Valley Conservancy, a local land trust and environmental advocacy group.

**ANNA MCCARTNEY**, a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at [acm40@psu.edu](mailto:acm40@psu.edu).

## With or without snow, Winterfest goes on

Get ready to sled, tube, snowboard and enter the recycled-sled contest at the 2012 Winterfest at the Lake Erie Arboretum at Frontier Park.

The event, which will also include family activities, games,

music, horse-drawn wagon rides and ice carving, will be held Saturday from noon to 4 p.m. at the park, West Eighth Street and Bayfront Parkway.

For details, visit [www.leaferie.org](http://www.leaferie.org). Snow or not, the event will take place.



CONTRIBUTED PHOTO

Jenna Cramer shares information about green schools and energy with teachers

## Teachers, youth leaders invited to workshops

By ANNA MCCARTNEY  
Contributing writer

With your help, young people can become the leaders of tomorrow, equipped to deal with the problems they inherit.

Being prepared to build sustainable communities that solve mounting challenges such as diminishing energy resources and increasing pollution is critically important.

Two workshops for teachers and youth leaders will provide the tools to ensure they are ready:

"Sustainable Communities," Saturday, Feb. 25, from 8:30 a.m. to noon

"Energy Efficiency," Wednesday, March 7, 4:30 p.m. to 8 p.m.

Both workshops will be held

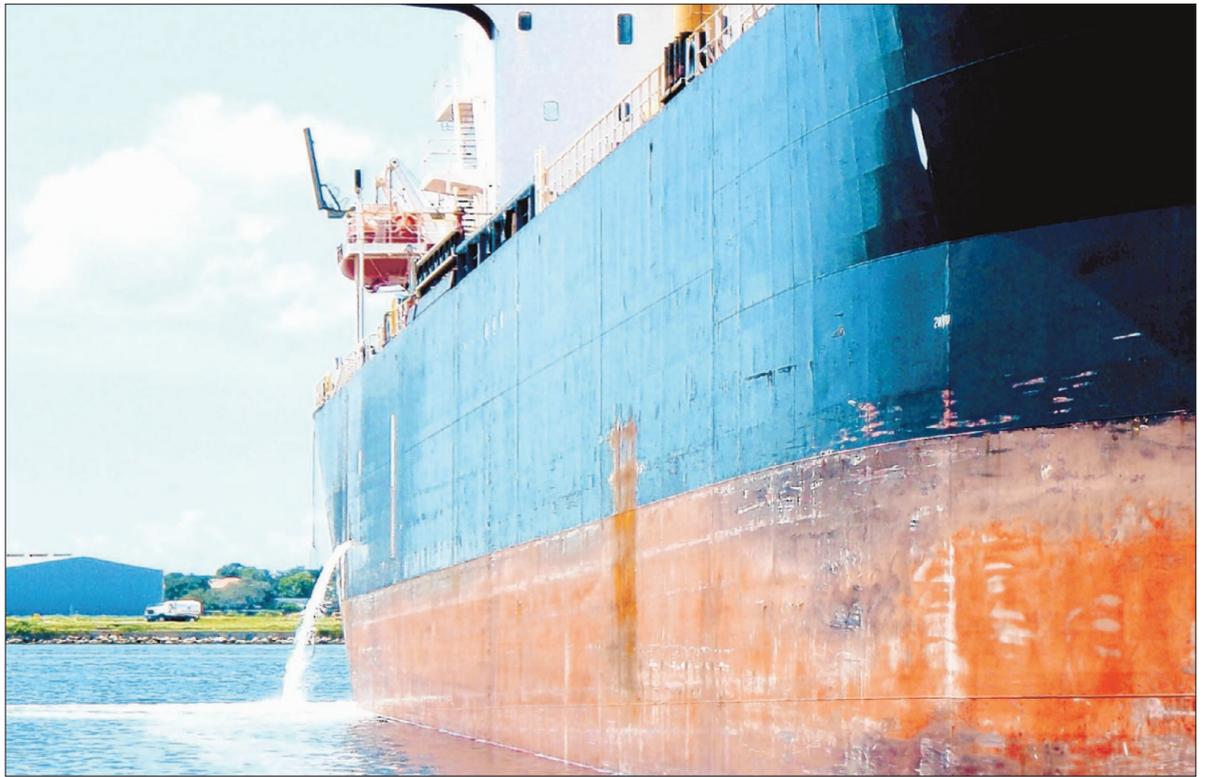
at the Tom Ridge Environmental Center, room 112.

Teachers can earn three Act 48 credit hours per workshop.

Cost for both workshops is \$40, or \$25 for each one. Reservations for the Feb. 25 workshop are due by Feb. 22; RSVP for the March 7 workshop by March 1. Contact Angela Porfilio at 835-8069 or by e-mail at [aporfilio@environmenterie.org](mailto:aporfilio@environmenterie.org).

The workshops are sponsored by the Pennsylvania Department of Environmental Protection Coastal Resources Management Program.

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Ballast water, which is carried in ships to provide stability, is taken on when a ship unloads cargo and is discharged when it is loaded up again. It is considered the main pathway for invasive species worldwide. Man-made locks in the Saint Lawrence River were opened in 1959, allowing freighters and their invasive passengers direct access to the Great Lakes watershed.

# Tracking devices

## How invasive species enter our waters

By ANNA MCCARTNEY  
Contributing writer

To prevent the arrival and spread of harmful aquatic invasive species, it is important to know how these aliens get from place to place.

Plants, animals, and parasites are considered invasive when they move to an ecosystem where they are not native and they cause economic and/or environmental harm, or pose a threat to human health.

AIS are aggressive, extremely adaptable and have high reproduction rates. Together with the absence of natural controls, they out-compete native fish, wildlife and plants, and they alter rivers and lakes in the United States. Once they become established, they are impossible to fully eradicate and extremely expensive to control. The invaders negatively impact agricultural production, fishing, property values, recreation, wildlife habitat and water-supply systems.

There are many pathways by which AIS enter their new environments. While some are carried by wind or water currents or by birds and animals, many are aided by humans who typically carry these invaders greater distances and with more speed than natural forces.

Invading species are introduced through a variety of human pathways, including:

- Ballast water from ships that travel from foreign countries and from one Great Lakes port to another

- The aquarium, live food fish and horticultural trades and their transfer (Examples include baitfish, live fish sold to food industries, stocked fish and organisms sold to the aquarium and water-gardening trades, and ornamental plants for gardens).

- Pets that are intentionally or accidentally released

*"The Great Lakes have suffered immensely because of invasive species. We have to put a stop to this"*

— Tim Eder, executive director of the Great Lakes Commission

- Recreational activities such as scuba diving, boating, and angling

Canals and waterways were built by humans as transportation corridors for commercial and recreational activities to connect watersheds that were naturally not connected, but now these provide aquatic super highways for AIS.

The leading pathways of AIS introductions in the Great Lakes are ballast water and solids in ships entering from overseas through the Saint Lawrence Seaway, which opened in 1959. The Chicago Sanitary and Ship Canal, which opened in 1900 with more channels added in 1910 and 1922, is another prime example that allows passage for AIS between once-separate watersheds — the Mississippi River system and the Great Lakes.

Now that we know the ways AIS travel, can we continue to say this form of biological pollution is accidental or that we can't stop it?

**Next week:** Economic impacts of AIS

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The dumping of live bait into the water or on shore has resulted in the establishment of many non-native animals.



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Catfish farmers in the U.S. imported Asian carp decades ago to eat up the algae in their ponds; the fish escaped into the wild during flooding and have been making their way up the Mississippi River with devastating consequences.



CONTRIBUTED PHOTO

Many aquatic invaders hitchhike on recreational vehicles and equipment when people fail to clean their boats and travel to new bodies of water.



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Exotic animals and aquatic ornamental plants can become invasive when they get into the environment.

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Check out these website to learn more:

[www.glc.org/caws/](http://www.glc.org/caws/)  
[www.protectourwaters.net](http://www.protectourwaters.net)  
[www.fishandboat.com/ais.htm](http://www.fishandboat.com/ais.htm)

Look at the political cartoons in today's newspaper. What makes them effective? Why do readers like them? Draw a political cartoon to teach readers about how humans help invasive species spread. Send them to Erie Times-News in Education, 205 W. 12th Street, Erie, PA 16354 for possible publication in "your space."

