

NIE **Connect with your environment**
 Learn about environmental issues, in your community and how you can get involved.



CONTRIBUTED PHOTO

Members of the Pfeiffer-Burleigh Green Team collect trash and data near their school.

Students clean up trash to protect world's oceans

By ANNA McCARTNEY
 Contributing writer

Each fall, K-12 students in Erie County stomp out litter at their school campuses and surrounding neighborhoods in their effort to reduce marine debris.

Since 2008, Pennsylvania Sea Grant has involved teachers and students in the yearly International Coastal Cleanup because many of them cannot participate in the local effort held on the third Saturday of September.

Students tally every item they find, using data cards from the Ocean Conservancy. Although not all this trash is found directly next to Lake Erie or one of its tributaries, much of the litter discarded inland along the streets and sidewalks around town would eventually reach Lake Erie and the ocean. Marine debris impacts everything from ocean health to local economies, especially those based on tourism and fisheries, like Erie's economy is.

This year 882 students and 39 teachers and other adults from 12 schools and after-school programs filled 175 bags with cigarette butts, bottles, eating utensils, straws, bags and other items mostly made of plastic. Some items, too large to bag, included appliances, building materials, a 54" flat-screen TV and discarded tires.

Their totals are added to the Pennsylvania Lake Erie International Coastal Cleanup data. In all, there were 1,662 registered participants in the 2014 PA-LEICC, which included an additional 660 adults and 120 students who came out on the day of the event. More than 5,168 pounds of trash was collected in over 41.5 miles including school neighborhoods, streams, and inland areas and along the Lake Erie shoreline. This data will be sent to the Ocean Conservancy so it can be added to data collected around the world. The combined data will be used to raise awareness about the problems caused by marine debris and what can be done to solve them.

Schools that participated in 2014 are: Union City, Our Lady's Christian, Pfeiffer-Burleigh Elementary, Northwestern High School, Neighborhood Art House, Fairview High School, Perseus House School of Excellence, North East Middle School, JoAnna Connell Elementary, Iroquois Elementary, Harding Elementary and Perry Elementary.

For more information about the PA Lake Erie ICC, visit <http://nie.goerie.com/coastal-cleanup>.

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SARA STAHLMAN PA SEA GRANT

Volunteers remove water chestnut. This fast-growing invasive plant forms thick mats that reduce oxygen levels for fish and make boating, fishing and swimming nearly impossible. Spiny seedpods with sharp barbs, which can remain viable for up to 12 years, are also a threat because they can stick into bare feet and puncture boat trailer tires. The first Western PA occurrence was found in Akeley Swamp in Warren County in 2013. Your help is needed to stop its spread.

Look out below

Invasive species choke off oxygen supply to marine life

By ANNA McCARTNEY
 Contributing writer

Boaters, anglers, scuba divers and even swimmers can unintentionally spread invasive species from one waterbody to another when invaders hitch a ride on their equipment.

If you engage in any of these activities, you are therefore the first line of defense against aquatic invasive species (AIS).

Once they are introduced, nonnative species lack predators, parasites, diseases and other means of control, so there is nothing to stop them from dominating their new environment. This is true for plants as well as animals.

For example, tiny bits of aquatic invasive plants such as Hydrilla and water chestnut form dense mats on the water's surface, cutting off oxygen and light to anything below. This causes fish kills and eliminates waterfowl feeding areas and fish-spawning sites. The thick mats also obstruct boating, fishing and swimming, and reduce the value of shoreline property.

Economic surveys by the University of Florida's Center for Aquatic and Invasive Plants have shown that with a 50 percent infestation in a lake, 75 percent of people stop using it for fishing, sailing, boating, swimming and other recreational uses. Add the cost to clear clogged intakes at water treatment, power generation and industrial facilities and the fact that invasive plants obstruct flood control channels, and it becomes clear the economic and environmental damage can become insurmountable.

So your help is needed to stop Hydrilla, water chestnut and a host of other AIS. What can you do?

- Learn to identify invasive plants and animals.
- Be aware of and avoid passing through dense beds of aquatic vegetation.
- Inspect boats, trailers and any equipment for plant fragments after each use.



PA SEA GRANT

Find this "Field Guide" at www.paseagrant.org/topics/invasive-species/.



BUGWOOD.ORG

Hydrilla hitchhikes to new areas in propellers and on boat trailers and equipment and stows away on waterfowl, and in the water itself. It was found in Pymatuning Lake for the first time in July.



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Tiny bits of aquatic invasive plants like Hydrilla and water chestnut can cause massive infestations. Take the precautions listed to stop their spread.



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Don't forget to clean and dry waders and other equipment that can harbor aquatic invasive species.

yourspace
 a place to share

Keep the Sea Free of Debris! October 15th
 thru
 November 1 7th
Art Contest

NOAA

Ready, set, draw

PA Sea Grant asks any students from kindergarten through eighth grade who participated in any International Coastal Cleanup through your schools or any PA Lake Erie ICC events over the years to grab your art supplies. You can help the National Oceanic and Atmospheric Administration raise awareness about marine debris. Show how marine debris impacts Lake Erie and the ocean and what you are doing to prevent it. Students in K-8 from all U.S. states or territories enrolled in recognized public, private or home schools are eligible to participate. Entries must be postmarked by Monday, Nov. 17. You can download the flyer and entry form with all the rules at www.paseagrant.org. Contact Anna McCartney at axm40@psu.edu for more information and to let her know if you will be participating. For more information about marine debris, visit <http://marinedebris.noaa.gov/>.

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Check out these websites to learn more:

- www.protectyourwaters.net/
- <http://fishandboat.com/ais.htm>
- www.paseagrant.org/topics/invasive-species/

Check the ads in the newspaper and decide which ones are most effective. What techniques can you use to create an ad to encourage people to visit the websites on today's pages to find out more about stopping aquatic invasive species? Send your ads to axm40@psu.edu for possible publication in the weekly "your space" column on this page.

