



Reconnect with your environment

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



ANNA MCCARTNEY/Contributed photo

Attend the April 10 workshop at the TREC to learn about restoration work on the main branch of Cascade Creek that will begin this summer.

Learn how to improve Lake Erie watershed

By ANNA MCCARTNEY
Contributing writer

The quality of water in Lake Erie, our greatest asset and source of drinking water, depends on the health of its tributaries.

A walk along Cascade Creek in Frontier Park is a great way to learn about the restoration work that has been done to eliminate erosion and sedimentation, two harmful processes that destroy water quality.

Join project partners for the first of three workshops covering the progress already made to improve this stream through completion of Phase I and II and work scheduled for phase III with funding from a Great Lakes Restoration Initiative Grant. Project partners include the Erie County Conservation District, Pennsylvania Sea Grant, Environment Erie and S.O.N.S. of Lake Erie.

Learn more about recent stud-

ies that have helped to frame the Presque Isle Bay Watershed Plan to improve water quality and reduce flooding. See effective Best Management Practices (BMPs) in action. You are sure to leave with important information about watersheds, nonpoint source pollution, stormwater BMPs and ideas on how you can improve water quality entering our waterways.

This workshop will take place on April 10, from 5 to 6 p.m. at the Tom Ridge Environmental Center (Room 112). Refreshments will be served, so an RSVP prior to the workshop is required at www.environmenterie.ticketleap.com/cascade-creek-restoration/ or call Jessica James at 835-8069 Ext. 104.

ANNA MCCARTNEY, a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at acm40@psu.edu.



ANNA MCCARTNEY/Contributed photo

Mercyhurst University students remove oriental bittersweet from Presque Isle State Park. Invasive plants like bittersweet, garlic mustard, phragmites, Japanese honeysuckle, Eurasian watermilfoil and many more threaten the survival of native and endangered plants and other wildlife. You can stop invasive species from spreading in your community and help remove those that can inflict serious ecological damage.

Banish these pests

Educate yourself to prevent and eliminate invasive species

By ANNA MCCARTNEY
Contributing writer

Early detection and rapid response are the best and most cost-effective approaches to controlling invasive plant species. However, without proper education and the help of every citizen, it is impossible to achieve either of them.

Once non-native species become established, they are almost impossible to remove and very difficult to control. Your help in monitoring and removing invasive species around your home, school or community before they have a chance to spread is crucial.

Follow the basic preventive steps listed below to keep from introducing nuisance plants, animals or other organisms to areas where they can inflict serious ecological harm.

- Remove any visible mud, plants, fish or animals and eliminate water from every conceivable item BEFORE leaving an area.

- Clean and dry anything that came in contact with water (boats, trailers, equipment, boots, clothing, dogs, toys, floats, etc.).

- NEVER release plants, fish or animals into a body of water unless they came out of that body of water. This includes water garden and aquarium plants and aquatic pets and bait (even if they appear dead).

- Clean your hiking boots and car and trailer tires before leaving an area.

- Never plant known invasive species on your property.

- Take inventory of existing plants and remove the invaders.

- Ask your garden center or landscaper to sell or use only native plants that are not invasive.

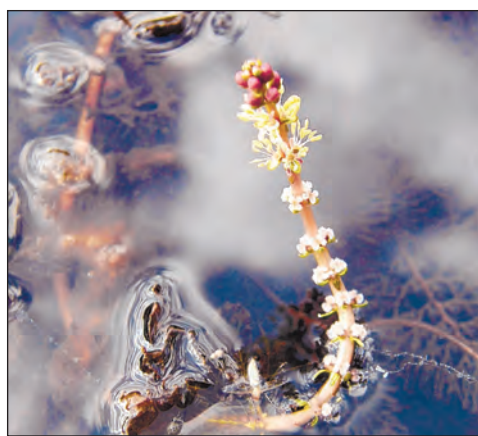
Many invasive plants were introduced to landscapes before anyone realized they cause damage. Lacking diseases or pests to control them, these plants grow aggressively and spread quickly replacing native ones.

These aliens disrupt natural succession and the water cycle. In our bays, estuaries and lakes and along streams and rivers, they damage habitat and replace plants that are important wildlife food sources. Invasive plant infestations also threaten the pollution prevention functions of riparian vegetation because they diminish soil-holding capacity, which results in erosion. Furthermore, over-use of pesticides to combat these invaders threatens groundwater and waterways.

For more information about getting involved in the early detection and rapid response initiative, including how to identify and remove these invasive plants, visit the websites below.

You can also remove invasive plants in your community by participating in "weed warrior" programs. In Erie contact Pennsylvania Sea Grant Coastal Outreach Specialist Jake Lybrook at jpl17@psu.edu, 504-2900 or 217-9021.

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BOB HARRIS/Contributed photo

Eurasian watermilfoil, once commonly sold as an aquarium plant, can form large, floating mats of vegetation on the surface of lakes and rivers, preventing light penetration for native aquatic plants and impeding recreation.



BOB HARRIS/Contributed photo

Japanese honeysuckle vines can rapidly invade and overtake a site by forming a dense shrub layer that crowds and shades out native plant species and by depleting the soil moisture and nutrients.



BOB HARRIS/Contributed photo

Garlic mustard out-competes native plants by monopolizing light, moisture, nutrients, soil and space. It also deprives wildlife species that depend on these plants (foliage, pollen, nectar, fruits, seeds and roots) for essential food sources.



BOB HARRIS/Contributed photo

Narrow-leaved and hybrid cattail will out-compete native plants in wetland systems. They establish dense monocultures that shade out native vegetation. Many wetland areas that once contained diverse habitat now have solid stands of cattails.



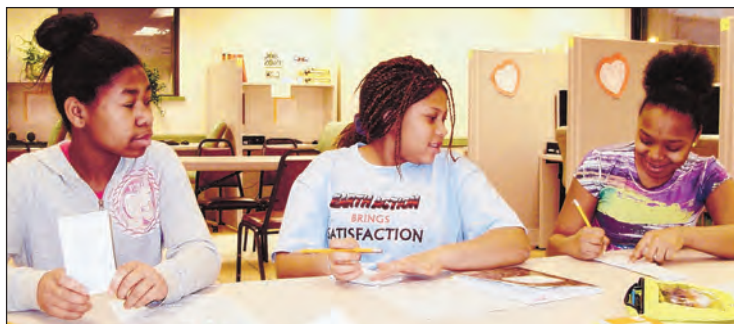
BOB HARRIS/Contributed photo

Oriental bittersweet threatens all vegetation levels of forested and open areas. It grows over and completely covers other vegetation. It kills other plants by preventing photosynthesis, girdling, and uprooting by force of its massive weight.



BOB HARRIS/Contributed photo

Phragmites quickly can take over a marsh community, crowding out native plants, changing marsh hydrology, altering wildlife habitat, and increasing fire potential. They will typically form a pure stand that chokes out other vegetation.



CONTRIBUTED PHOTO

NeNe Smith, left, Sequoyah Gardner, center, and Vaqarrie McQueen research wetlands for the Earth Action Team at the John E. Horan Garden Apartments.

'Wetland Team' tracks source of iron oxide

By ANNA MCCARTNEY
Contributing writer

So you don't know what an iron oxide seep is. The Earth Action Team at the John E. Horan Garden Apartments knows.

"The young people had lots of questions about a large orange area of water and land that we discovered nearby two years ago," said Pat Lupo, OSB.

"The seep at McDannell Run is orange water that is slowly oozing out of the bank and drainage pipe next to Franklin Avenue. Iron oxide makes the water orange," said team member Sequoyah Gardner.

After investigating seeps and getting the water analyzed by state labs, they decided to soak up the iron oxide by planting a wetland. They did more research on wetlands and native plants, worked with experts, visited wetlands at Lakeview Landfill and will also visit Asbury Woods. Sarah Galloway from the city of Erie helped the "Wetland Team" to identify wetland plants. With her help, they began to grow the seedlings this month.

NiNi Davidson thinks it will be beautiful. "It will have so many different kinds of plants that will grow in wetlands," she said.

"A wetland is like a sponge. It

soaks up the rainwater and also the seep water. Wetlands make good beds for animals too," said Vaqarrie McQueen

"Wetlands are also good at filtering pollution. They will help stop some of the flooding in low areas so we planted 15 different kinds of wetland seeds," said Briana Harris. "An acre of wetlands can store between 1 and 1.5 million gallons of flood water," said NeNe Smith. "My plant seedlings are milkweed and common milkweed; we also have many more seedlings to plant that will soak up some of the iron oxide," added Kalayziah Gore.

Onesti Davidson and the entire team are anxious and ready to begin planting in the seep area. "We got our wetland boots today," said Davidson. They hope to have the design for the wetland completed in April and will begin planting as soon as the weather permits. The group will present their project at the Earth Action Student Summit in Erie and the Great Lakes Student Summit in Buffalo in May.

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Check out these websites to learn more:

- www.fws.gov/invasives/
- www.seagrant.psu.edu/publications/ais.htm
- www.habitattitude.net/
- www.dcnr.state.pa.us/forestry/invasivetutorial/
- www.fishandboat.com/ais

Invasive plants are another example of how people have changed the natural environment. Have you seen any of the invasive plants listed today in your garden or neighborhood? Are you doing anything to help control invasive plants? What could you do to educate others about this problem? Write a letter for "your space" to convince others to get involved in early detection and rapid response in your community. Be sure to include facts to support your position. E-mail your letter to axm40@psu.edu.

