

Outdoors: Battle with invasive plant finds new ally



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PUT-IN-BAY, Ohio — Garlic has been championed for centuries due to its potent aromatic qualities and its ability to envelope foods with wonderful flavor.

Garlic is also believed to strengthen the immune system and reduce high blood pressure and high blood cholesterol. Some claim that garlic can help prevent cancer, dementia, and Alzheimer's.

It also has a reputation as both an aphrodisiac and as a rare weapon when used to repel the unwanted advances of vampires.

So garlic is good ... unless it comes to us disguised in the tiny white flowers sitting atop towers of heart-shaped leaves with toothy edges – garlic mustard. An extremely aggressive invasive plant, garlic mustard has the smell and taste of the popular bulb we use in cooking, but beyond that link, it is a villainous pest that is best eradicated from our landscape.

Garlic mustard was brought to North America more than 150 years ago for use as a food and medicine. It was first documented on Long Island in 1868 and since then it has spread across the map in the Northeast and Midwest and it continues to increase its domain.

The problem with garlic mustard is similar to what we encounter with most invasive plants — they out-compete and choke out the more desirable native vegetation. Garlic mustard is incredibly hardy and can grow in just about any soil and in areas of full sun to those with mostly shade.

It also has a very sinister quality — chemical warfare — since it can release materials that will inhibit or prevent other plants from growing nearby. So, in order for our native wildflowers, ground cover, and other plants to survive, the garlic mustard has to go.

On a recent Saturday, a dozen volunteers assembled here at Cooper's Woods Preserve, an 18-acre sanctuary located just steps from the bustling downtown corridor on South Bass Island. They were there with one mission — to grab garlic mustard plants by the neck and rip them from the ground. This labor-intensive hand removal of the pest has proven to be far and away the most effective tool in combating garlic mustard.

Lisa Brohl, a former biological technician with the USDA and the current chairman of the Lake Erie Islands Conservancy, said groups of volunteers have been organized for these garlic mustard-pulling events for the past decade or so. She believes she first saw evidence of the invasive plant on the Lake Erie Islands some 30 years ago while reading electric meters on nearby Middle Bass Island.

“Any place where you see disturbances in the soil or where a clearing has been made, you often see problems with garlic mustard coming in and taking over,” Brohl said. “It takes a lot of work to remove it, but if you get the garlic mustard out, the native plants and wildflowers come back and get established again.”

Brohl said areas of the woods that were cleared of the invasive garlic mustard last year now have rich patches of Appendaged Waterleaf, a native wildflower with rich pinkish purple to lavender colored flowers.

“There is a carpet of those wildflowers right where we pulled out garlic mustard,” she said.

Island resident Susan Byrnes, who led the recent garlic mustard eradication effort in Cooper’s Woods, said the dozen individuals who took part removed about 260 pounds of the pest plant in three hours.

“It is rewarding to see people care enough to come out and help, and they often find that once you start pulling out the garlic mustard, it becomes addicting. You start and then you just can’t stop,” said Byrnes, who was the top producer in the group with 41 pounds of garlic mustard removed.

The unwelcome plants are bagged and placed in a dumpster so the invaders will end up in the landfill and not spread their tiny seeds across the ground. Conservationists all across the region continue to organize garlic mustard removal events in an attempt to rein in the spread of this biological bully.

There might be some additional help on the way, however. An Ohio natural areas biologist came across an unlikely ally while pulling garlic mustard from on the grounds of the 3,600-acre Holden Arboretum northeast of Cleveland. Rebecah Troutman noticed a colony of tiny insects on a garlic mustard plant.

“I did some Googling and made a preliminary identification of the garlic mustard aphid, *Lipaphis alliarum*,” Troutman said. She then sent a sample off to a colleague with the U.S. Department of Agriculture and that researcher confirmed that the little creatures covering the garlic mustard leaves were yet another foreigner, European aphids. It was the first confirmed sighting of the aphid in the United States.

This particular aphid dines on the sap of garlic mustard plants, weakening them and causing yellowing and wilting of the leaves and distorted seed pods. Once Troutman shared her discovery with Michelle Beloskur, coordinator with the Midwest Invasive Plant Network, Beloskur commenced a search to find more locations where this aphid might already be at work choking out the spread of garlic mustard.

“Since 2021, we’ve identified isolated populations in Connecticut, Massachusetts, Michigan, Minnesota, Ohio, and Wisconsin,” Beloskur reported. “We’re seeing impacts like shorter plants, fewer and twisted seed

pods, and less overall biomass at these sites. It appears that even a small number of aphids can affect plant growth.”

With the European aphid joining the fight, out on the Lake Erie Islands, Brohl hopes the boots-on-the-ground work of volunteer garlic mustard pullers will continue, and the ranks of plant yankers will continue to grow so our native plants have the space they need to thrive.

“The best part of these organized efforts is that other people see what we are doing and get interested, and now they are looking for garlic mustard and pulling it out,” she said.

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