



MeanGreen

By MATT MARKEY and JEFF BASTING

They don't have the cartoonish presence of a round goby, or the menacing, lowslung eyes of an Asian carp. No, they often look dainty or even charming, but these are the botanical equivalent of the wolf in sheep's clothing.

Invasive plants — mean green — are a more insidious brand of intruder. They seek to dominate the landscape once they get established, choking out native vegetation, and frequently offer little in

the way of food or habitat for wildlife.

"The difference is that the native plants play well in the environment, while the non-natives have this tendency to take over," said Sue Tangora, the invasive species program coordinator for the Michigan Department of Natural Resources.

Some invasive plants reached North America as seeds hidden in ballast water, while most were brought here as landscaping enhancements. What many of them have done is alter the landscape in a very negative manner. Phragmites (frag-my-tees) is one of the

biggest offenders in the botanical horde, quickly overwhelming what were once stands of native cat tails.

"We have thousands and thousands of acres in Saginaw Bay infested with non-native phragmites," Ms. Tangora said. "It has just taken over."

This tall, reed-like plant prefers wet, marshy areas, and although there is a native version, the invasive strain chokes that, and everything else, out. It has a dense root structure, with 80 percent of the plant mass below ground level.

Herbicides, mechanical removal, and prescribed burns are the only weapons available to tame phragmites and most of the other invasive plants, but this war is never won.

"Those methods only work to keep it down," Ms. Tangora said. "It's pretty much impossible to eradicate from the environment once it is established."

There are numerous aquatics in the mean green club, and many other members with such innocent sounding names. There's purple loosestrife, autumn olive, Japanese honeysuckle, multiflora rose, tree of heaven, and kudzu. And while a biological control — a beetle — has slowed purple loosestrife's spread, the others are aggressive, highly adaptive, and able to thrive in marginal environments.

While it is not as prevalent in Ohio and Michigan, kudzu has become a menace in the South. This climbing vine, that was brought to the United States as an ornamental plant used in erosion control, blocks sunlight or chokes off stems to kill native plants, growing one foot per day once established.

Kudzu is believed to cover some 2 million acres of southern forest at this time, following the pattern of other invasives by choking out the competition and creating massive monocultures — stands where only one species of plant survives.

"In general, less biodiversity is less healthy for the environment," said Doug Kane, a biology professor at Defiance College. "These non-native plants create monocultures and cause a lot of problems that way."



WIKIMEDIA

Kudzu: spreads by both runners and seeds, once touted for erosion control, brought to U.S. in 1876



PHOTOS/ODNR

Multiflora rose: shrub with slender thorny branches, red egg-shaped fruits in fall, forms large thickets

Identifying Ohio's common invasives

- 1. Tree-of-heaven:** long, palm-like leaves, smooth bark, and large, winged seed pods
- 2. Common buckthorn:** tall shrub that tolerates many environments, small spines on branches
- 3. Japanese knotweed:** bamboo-like, forms dense thickets, sprouts from cuttings, thrives in many soils
- 4. Garlic mustard:** fragrant plant that tolerates shade and forms thick colonies which alter the habitat, stays green through winter
- 5. Canadian thistle:** long prickly stems with lavender flower heads, seeds live up to 20 years, native to Europe and Asia, not Canada
- 6. Purple loosestrife:** long flower spikes with many brightly-colored flowerets, a dense root web that chokes out other plants
- 7. Japanese honeysuckle:** woody vine that has small oblong leaves, glossy black fruits

More information available at:
Ohio Invasive Plants Council: oipc.info
Ohio DNR: ohiodnr.gov/invasivespecies
The Nature Conservancy: nature.org

THE OUTDOORS PAGE

Invasive plants a growing problem



THE BLADE/ANDY MORRISON

Maumee Bay State Park naturalist Laurel Ashley inspects a dense stand of invasive phragmites, which has squeezed out native plants.

The botanical bad guys

■ As much as 25 percent of the plant species now growing in Ohio and Michigan came from other places on the North American continent, or elsewhere around the world. Many of these non-native plants are not considered invasive and do not present an immediate threat to native plants and our natural areas. The non-native plants that are invasive cause considerable harm to many sensitive ecosystems, and they are quite costly to control.

■ Invasive plants, including a number of aquatic species, are notorious for crowding out our native plants, through shading, choking, or simply overwhelming them with growth. They accomplish this with high reproductive rates, the lack of natural enemies or controls, and their ability to tolerate a wide variety of soils, moisture levels, and environmental circumstances.

■ Invasive plants often form monoculture communities where they are the only survivor. These monocultures drastically reduce the biological diversity and alter the food web, harming wildlife which rely on the survival of native plants for food, nesting, and breeding habitat.

■ It is estimated that more than 25,000 non-native plants have been established in the United States, and that they inflict more than \$34 billion in damage each year to the environment, negatively impacting our forests, agriculture, industry, waterways, recreation areas, and the health of the population.

Sources: ODNR, USFWS



DELAWARE FISH AND WILDLIFE

Phragmites: reed-like, the invasive strain reaches 15 feet tall, but 80 percent of its mass is underground in huge root clusters (above), making it extremely difficult to remove through multiple applications of herbicides and controlled burns