# Regional collaborative efforts find unique ways to combat invasive species

**By JOANNE FOREMAN**
**Michigan Department of Natural Resources**

From the northern lakes and forests to the coastal dunes and southern plains, Michigan is home to diverse landscapes and ecosystems.

Natural resource challenges can differ by region, and this is true especially when it comes to managing invasive species — those that are not native and can cause harm to the economy, environment or human health.

To address the diversity of needs across the state, the Michigan Invasive Species Grant Program annually supports Cooperative Invasive Species Management Areas. CISMAs, as they commonly are called, are groups of nonprofit and government agencies, businesses and volunteers working together to identify and respond to invasive plants, animals and diseases that affect high-value resources in their areas.

|  |
| --- |
| “These community-driven organizations are the heart of Michigan’s invasive species program,” said Tammy Newcomb, senior water policy advisor with the Michigan Department of Natural Resources. “While the DNR and the departments of Agriculture and Rural Development and Environment, Great Lakes, and Energy provide the framework, CISMAs provide the local action and leadership to make things happen in our communities.”   CISMAs can offer a range of services including information on preventing, identifying, reporting and managing invasive species. A [map of CISMA regions and contact information for local offices](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.michigan.gov%2Finvasives%2F0%2C5664%2C7-324-68072---%2C00.html%3Futm_campaign%3DShowcasing%2BCISMAs%26utm_medium%3Dpr%26utm_source%3Dgovdelivery&data=02%7C01%7Cpepinj%40michigan.gov%7Cd9c9c121318f483d918c08d7b93114fb%7Cd5fb7087377742ad966a892ef47225d1%7C0%7C0%7C637181492765556092&sdata=rl72FbBC%2B4iz1oiKkIRIUL7B6yUSR307kxAE6%2FA1F4g%3D&reserved=0) is available at [Michigan.gov/Invasives](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.michigan.gov%2F%2Finvasives%3Futm_campaign%3DShowcasing%2BCISMAs%26utm_medium%3Dpr%26utm_source%3Dgovdelivery&data=02%7C01%7Cpepinj%40michigan.gov%7Cd9c9c121318f483d918c08d7b93114fb%7Cd5fb7087377742ad966a892ef47225d1%7C0%7C0%7C637181492765556092&sdata=%2FtGw57kQchQV6njQ7BxI3ilDkH7ScLhTJYTx8HEc9Zw%3D&reserved=0) under the “Local Resources” tab. |

### Addressing local concerns

Different factors, including geography and human movement, affect where invasive species take hold. CISMAs survey land and water to understand invasive species issues. These assessments help each group prioritize where prevention and management efforts will be most effective in reducing economic, environmental or human health effects.

For the Oakland County CISMA, battling phragmites is job one. The tall, invasive reed is widespread in the busy transportation hubs of southeast Michigan. The CISMA and the county road commission work together to target phragmites in the road rights-of-way, where growth can obstruct visibility, clog ditches and hamper snow removal. The partnership has streamlined contracts and permits and boosted funding to expand roadside phragmites management to the entire county.

|  |
| --- |
| Red swamp crayfish became an issue for the Barry, Calhoun and Kalamazoo CISMA when an infestation was discovered in Sunset Lake in Kalamazoo County in 2017. At the same time, the invasive crayfish were discovered in southeast Michigan, primarily in man-made retention basins and private ponds in Novi and Farmington Hills.“We haven’t found the crayfish in any other lakes or wetlands in the Kalamazoo area, but we will be bringing on a technician this summer to expand crayfish trapping in the lake and to survey surrounding areas,” said Fallon Januska, Barry, Calhoun and Kalamazoo CISMA coordinator. |

|  |
| --- |
| Nor Serocki, coordinator of the Southwest by Southwest Corner CISMA, serving Van Buren, Berrien and Cass counties, didn’t expect to be battling kudzu, the fast-growing vine that has overtaken forests in southern U.S. states. However, surveys in 2018 confirmed three infestations in the region.“It's clear that these patches have been there for a while,” said Serocki. “Heavy growth is starting to smother and kill trees.”The CISMA is starting a three-year kudzu treatment program this summer in hopes of eradicating the invasive vine. Kudzu has been found in only two other locations in the state – near South Haven in Allegan County and near Frankfort in Benzie County, where treatments are also underway. |

### Forging local partnerships

CISMAs are, by nature, collaborative organizations. Their partnerships grow each year to encompass more businesses, agencies and individuals who are recognizing or dealing with the impacts of invasive species. CISMAs thrive by coordinating partner efforts and sharing resources to reduce costs and increase capacity for outreach, monitoring and treatment.

|  |
| --- |
| The Charlevoix, Antrim, Kalkaska and Emmett CISMA is coordinating with the City of Petoskey's parks and recreation department to survey and treat a severe infestation of black swallow-wort in the Bear River Valley Recreation Area and surrounding neighborhoods. The invasive vine, a relative of native milkweeds, can attract monarch butterflies to lay their eggs, but caterpillars will die shortly after hatching and eating this poisonous plant.The city and CISMA are working to encourage homeowners to treat the invasive vine on their properties.“Invasive species know no boundaries, so it is important to have the ability to fight them on public and private lands at the same time to avoid re-infestation,” said Ben VanDyke, Charlevoix, Antrim, Kalkaska and Emmett CISMA coordinator.The CISMA is offering to cover 50% of treatment costs for landowners in the area. |

Over the past three years, the Charlevoix, Antrim, Kalkaska and Emmett CISMA has been working with the Little Traverse Bay Band of Odawa Indians to survey and manage invasive species in the Beaver Island Archipelago in northern Lake Michigan. Despite their isolation, the islands are experiencing infestations of phragmites and the invasive plants Japanese knotweed, glossy buckthorn and garlic mustard.

|  |
| --- |
| Beaver Island is home to some very active volunteers dedicated to eradicating invasive species. VanDyke recognized the difficulty in providing adequate support to the community due to high travel costs. To meet the need, the Charlevoix, Antrim, Kalkaska and Emmett CISMA secured funding for two interns who will be stationed on the island in summer 2020.“We are working with local leaders to pinpoint specific education, survey and treatment needs the interns can address during their stay,” said VanDyke. “We hope that the internship program will strengthen the CISMA’s presence on the island as a public resource.”The Keweenaw Bay Indian Community’s Natural Resources Department and the Keweenaw Invasive Species Management Area work together to address invasive species across Keweenaw, Houghton and Baraga counties.Combining resources, including mobile boat washes and expertise on invasive species control, the group works to survey and treat species threatening native plant populations, which are highly regarded for their ecological, cultural and medicinal value.One shared target is Japanese barberry, which competes for habitat with ginger root, used as both a spice and a natural heart medicine. Removal of barberry thickets and replacement with native species enhances ecological value, decreases habitat for Lyme disease-carrying ticks, discourages other invasive species and provides opportunities for gathering. |
| The Northwest Michigan Invasive Species Network, serving Manistee, Benzie, Leelanau and Grand Traverse counties, is battling Japanese barberry by offering a plant take-back program. Though not prohibited in Michigan, the popular green to maroon shrub with sharp thorns and bright red berries is spread easily by birds into forests and surrounding landscapes.Homeowners who remove the plant from their gardens and bring it to the CISMA’s event for disposal are offered gift certificates to purchase new, non-invasive plants as replacements. The certificates are valid at retail outlets that have joined the CISMA’s Go Beyond Beauty campaign by removing plants with invasive habits from their shelves. |

### Tailoring outreach to the community

CISMA coordinators agree that public outreach is perhaps the most important part of their work.

“When people understand that something is a problem in their community, most will do whatever it takes to help out,” said Nick Cassel of Three Shores CISMA, serving the eastern Upper Peninsula.

In addition to presentations, press releases and social media, CISMAs have found unique ways to engage the public in identifying, reporting and managing invasive species.

|  |
| --- |
| Over the years, Cassel has shifted the focus of public workshops from general invasive species information to more directed programs.“We think a lot about demographics, species and timing,” said Cassel. “We focus on a species that’s flowering or highly visible at the time, one that people in the community are likely to see in their backyards, by their docks or along the roadside.”Patrick Scanlon, who coordinates a CISMA serving Genesee, Lapeer, Livingston and Shiawassee counties, agrees that focusing on things people can see for themselves can be an effective approach to invasive species education."My favorite events involve getting people outside for hands-on educational opportunities," Scanlon said.He uses guided kayak tours to get participants immersed in the beauty of local waterways while learning about the threats invasive species pose to recreation and the environment. People can see and sometimes touch invasive species while directly witnessing their effects on local waterways – a lesson that resonates far beyond the classroom. |

|  |
| --- |
| One species gaining attention in the Upper Peninsula is wild parsnip, a tall, yellow-flowered plant in the carrot family. Its stem, leaves and flowers contain chemicals that can increase skin sensitivity to sunlight and cause severe rash or blistering in some people.“People care about this species not only because they see it more and more, but also because some have gotten blisters or burns from the plant,” said Cassel. “It’s important to identify and avoid wild parsnip. Carefully removing young plants and avoiding mowing after seeds have formed can reduce the plant’s spread.”North Country CISMA, spanning Mason, Lake, Osceola, Mecosta, Wexford and Missaukee counties, takes advantage of events like the Mecosta County Chamber of Commerce’s arts and crafts festival to offer walking tours through areas with known invasive species and areas where the CISMA is working to control infestations.“People are willing to take a short, 45-minute walk through Hemlock Park in Big Rapids and a little jaunt through a nearby neighborhood to see invasive plants up close, both in the wild and in residential landscapes,” said coordinator Vicki Sawicki. “It’s a great opportunity to teach people how to identify invasives they might encounter and explain how they can be managed.” |

### Here to help

In 2019, Michigan’s CISMAs conducted surveys on nearly 37,000 acres of land and water and managed 3,892 acres for phragmites, Japanese knotweed, European frog-bit and other regional priority species. CISMAs actively promote landowner management of invasive species through workshops and hands-on training in chemical application and manual removal methods. Many of the organizations have additional programs such as tool lending and cost-share opportunities to help landowners tackle invasive species on their own properties.

Cassel is convinced that CISMAs’ efforts have made an impact throughout the state.

“After several years of outreach on invasive species, people understand the general issue,” he said. “They want to know what we can do locally – and that is the role of the CISMAs. We connect and focus on specific species they know of and locations they can relate to, then show them how they can take action.”

More information on CISMAs and invasive species in Michigan is available at [Michigan.gov/Invasives.](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.michigan.gov%2F%2Finvasives%3Futm_campaign%3DShowcasing%2BCISMAs%26utm_medium%3Dpr%26utm_source%3Dgovdelivery&data=02%7C01%7Cpepinj%40michigan.gov%7Cd9c9c121318f483d918c08d7b93114fb%7Cd5fb7087377742ad966a892ef47225d1%7C0%7C0%7C637181492765566087&sdata=zMflb43rpUycjN5kJeFKmNhDS5j2mSD96GUDCy0e78U%3D&reserved=0)

Michigan's Invasive Species Program is cooperatively implemented by the Department of Environment, Great Lakes, and Energy, the DNR and the Department of Agriculture and Rural Development.

Check out previous Showcasing the DNR stories in our archive at [Michigan.gov/DNRStories](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.michigan.gov%2Fdnrstories%3Futm_campaign%3DShowcasing%2BCISMAs%26utm_medium%3Dpr%26utm_source%3Dgovdelivery&data=02%7C01%7Cpepinj%40michigan.gov%7Cd9c9c121318f483d918c08d7b93114fb%7Cd5fb7087377742ad966a892ef47225d1%7C0%7C0%7C637181492765566087&sdata=zESCdGljJ6XY0UWC7FVCgKDpN9RJpFvZ7prfP4Nagzc%3D&reserved=0). To subscribe to upcoming Showcasing articles, sign up for free email delivery at [Michigan.gov/DNR](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.michigan.gov%2Fdnr%3Futm_campaign%3DShowcasing%2BCISMAs%26utm_medium%3Dpr%26utm_source%3Dgovdelivery&data=02%7C01%7Cpepinj%40michigan.gov%7Cd9c9c121318f483d918c08d7b93114fb%7Cd5fb7087377742ad966a892ef47225d1%7C0%7C0%7C637181492765576084&sdata=PlOOVVFTct8MrxX%2FuW5f1JLIzq%2FePjja8iZO017Biak%3D&reserved=0).

###