



| Quarterly Newsletter

July 1st - September 30th, 2019



Featured: “*Great Lakes Restoration Initiative: Beaver and Hog Island Shoreline Habitats*”

“The mission of the CAKE CISMA is to protect the natural resources, economy, and human health in Northern Lower Michigan through collaborative outreach and management of invasive species.”

Note from the Program Coordinator



What a whirlwind this summer has been! It is officially fall in Northern Michigan, as evidenced by the slow and gradual change of colors on our maples, beeches and aspens. Hues of crimson, gold, and brown have begun to border the sides of our lakes and roads, and the burning heat of summer has started to give way to wetter, windier weather.

Despite the changing seasons, we remain busy doing our part to fight invasive species in Charlevoix, Antrim, Kalkaska and Emmet counties through control and treatment efforts. Knotweed treatments continue from late summer into early fall - phragmites treatments have already begun, as we have had many survey and treatment requests. Swallow-wort treatments have finished in Petoskey, and we are pleased to say that both Beaver River Valley Recreation Area and Bayfront Park have been treated-twice! In addition to these public areas, the CAKE strike team has been working hard to offer treatment to private landowners.

In the busy and outdoor spirit of summer, CAKE has worked hard to keep up with the amount of outdoor recreationists and enthusiasts and to ensure that all outdoor play is not only fun but responsible as well. I have worked with Paddle Antrim on both the Rapid City Paddle Stewards event in July as well as the annual Paddle Antrim Festival in September to help educate and inform paddlers on aquatic watchlist invasive species and how to prevent unnecessary spread throughout the Elk River Chain of Lakes. At the Paddle Antrim Festival, we supplied a mobile boat washing unit to assist paddlers in cleaning their water craft. As of July, CAKE has been executing a grant to survey and treat invasive species on the Chain from 2019-2020.

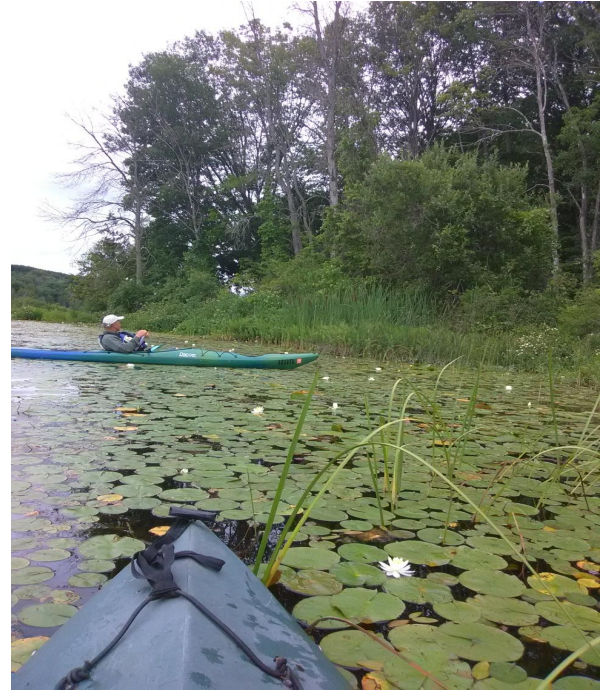
We have also been quite busy with our island work. The Great Lakes Restoration Initiative (GLRI) has awarded the CAKE Cisma a grant from 2019-2021 for the purpose of survey and control on Beaver Island and Hog Island. We have conducted initial surveys as well as some treatment, and are anxious to get more done if time allows. We are thankful for the opportunity to preserve the islands, and we are grateful to the Little Traverse Band of Odawa Indians Natural Resource Department for assisting us with this work.

Going into fall, we remain busy but optimistic that the work we do will ultimately help to better the health of our neighbors and our environment. Thank you to all of our partners for assisting us in our work! We are excited for what this next season holds.

- Benjamin

In the Rear view: This Quarter's Notables

- **July-August:** treatments ongoing for black-swallow wort in Petoskey.
- **July-September:** Chain of Lakes survey ongoing for purple loosestrife and invasive phragmites.
- **July 10th:** Coordinator presented on CAKE Cisma's work and the detriment of invasive species to the Burt Lake Watershed Advisory Council in Indian River.
- **July 23rd:** coordinator presented on Eurasian watermilfoil at the Three Lakes Association's annual event in Alden.
- **July 24th:** coordinator presented on invasive species issues and specific species concerns for the Petoskey Area Garden Club.
- **July 29th:** Paddle Steward Aquatic Invasive Species Workshop in Rapid City, including presentations on MI watchlist species and a guided paddle on the Chain of Lakes.
- **July 31st:** Collaborative joint survey with Huron Pines to survey Mackinaw City for invasive species.
- **August 5th -4th:** CAKE team travelled to the Beaver Island archipelago to conduct initial surveys for phragmites and invasive cattail on Hog and Beaver Island.
- **August 13-14:** Cisma statewide training in Sault St. Marie, including current information on tree diseases and parasites, treatment protocol, and MISIN.
- **September 12th:** Northern Lake Michigan Islands Collaborative.
- **September 12th -14th:** Paddle Antrim Festival, including a mobile-boat washing unit hosted by the CAKE Cisma, Antrim Conservation District and Grass River Natural Area to inform and assist paddlers on AIS.
- **September 16th-19th:** CAKE Cisma partnered with Little Traverse Bay Band of Odawa Natural Resource Department to treat High and Beaver Island for Spotted Knapweed and survey Hog Island for invasive phragmites and narrow leaf cattail.



Our CAKE strike team has been hard at work paddling through the Elk River Chain of Lakes to survey riparian and aquatic invasive species!

Coming Up: Next Quarter

- Phragmites treatments continue
- Michigan Association of Conservation Districts Fall Convention to be held in Bellaire, October 28th-30th, featuring a CAKE Cisma field trip.
- Hemlock surveys to resume in November
- Annual Meeting for the Michigan Invasive Species Coalition





Great Lakes Restoration Initiative: **Beaver and Hog Island Shoreline Habitats**

The CAKE CISMA is committed to the education, control and treatment of invasive species in its four-county service area. This by no means excludes the Beaver Island Archipelago, which is acknowledged by many as an ecological jewel of the Great Lakes. Home to many unique ecosystem types including freshwater dunes, coastal fens, Great Lakes marshes and more, the CAKE CISMA recognizes the ecological importance and value of these habitat types for a variety of federally endangered and threatened species, including piping plover, Pitcher's thistle, Hine's emerald dragonfly, and Michigan monkeyflower. These species have a limited distribution and specific habitat needs. Unfortunately, invasive species that frequent coastal areas are more than capable of overcrowding these habitats by forming dense monocultures and outcompeting native species. Such species include spotted knapweed, invasive phragmites, and narrow leaf cattail.

In July of 2019, the CAKE CISMA was awarded a grant by the Great Lakes Restoration Initiative, which is a grant program by the US Forest Service dedicated to the preservation and restoration of the Great Lakes basin and its natural resources. The CAKE CISMA's project focuses on Beaver Island and Hog Island.



In August, the CAKE team visited the islands to conduct initial surveys of Beaver Island. Coastal areas such as Paradise Bay and Little Sand Bay were targeted; Paradise Bay sees large amounts of traffic on a regular basis, and contains both phragmites and narrow leaf cattail along stretches of the harbor. As the main entry point on the island for boats, it is critical to have control over Paradise Bay to prevent further spread to the island. It is hoped that the removal of these species will encourage the growth of native riparian plants in the bay area.

Little Sand Bay hosts a coastal preserve owned and operated by the Little Traverse Conservancy. Within the preserve, the federally threatened Pitcher's thistle can be found. This plant requires a specific habitat type and has a distribution limited to the Great Lakes. In the case of Little Sand Bay, spotted knapweed is the primary offender. Spotted knapweed will quickly form dense monocultures and will even inhibit the growth of nearby native plants through allelopathy (the emission of chemicals through the soil).

To control the spotted knapweed populations, the CAKE Cisma and LTTB NRD visited Little Sand Bay on Wednesday, September 18th to spray all visible knapweed rosettes with herbicide at the preserve with permission from the Little Traverse Conservancy. Knapweed in close proximity to Pitcher's thistle was manually removed. It is the hope of the CAKE Cisma that the lessened population of knapweed will lead to an eventual population increase for Pitcher's thistle along the beach.



The focus for Hog Island is the coastline, with as much of it being surveyed as physically possible by the CAKE Cisma with assistance from LTTB NRD. Both groups visited Hog Island on Tuesday, September 17th, for the purpose of surveying invasive phragmites and narrow leaf cattail.

Surveys on Hog Island were limited due to the combination of adverse weather and the high number of rocks close to the island's shore. Surveys were conducted on foot along the shoreline of Fisherman's Bay and adjacent marshes and shorelines. As Hog Island is one of the most remote and untouched islands in the archipelago with rich coastal habitat for native species, the CAKE Cisma hopes to return to complete more surveys and provide treatment to priority infestations of both phragmites and cattail.

The project runs through 2021 and will include follow up treatments and surveys for Little Sand Bay, Paradise Bay and Hog Island.

Paddle Antrim Festival 2019: Paddlers Fighting Aquatic Invasive Species



The Paddle Antrim Festival draws in many people each year, locals and visitors alike, to come together and paddle the Elk River Chain of Lakes in a large, colorful flotilla of kayaks and outdoor enthusiasts. This year, the festival was held from September 12th-14th, with paddlers beginning their watery trek in Ellsworth and ending in Elk Rapids. The Chain of Lakes has over 90 miles of shoreline that borders its famous crystalline waters, and these riparian areas are important habitat for native flora and fauna. Although it is an interconnected waterway, it is still vitally important that invasive species movement is restricted within the Chain as much as possible. Some aquatic invasive species can spread by both seed and fragmentation, and boats are often a primary vector in spreading both from lake to lake.



To fight the spread of invasive species on the Chain and bring AIS awareness to paddlers, the CAKE CISMA hosted a boat washing unit on Thursday evening and Friday morning in Ellsworth to assist kayakers in decontaminating boats before entering the Chain for the big event. Additionally, CISMA partner Grass River Natural Area volunteered to staff the boat washing unit in Bellaire on Friday afternoon, to ensure that any invasives from the Upper Chain would be prevented from infiltrating the Lower Chain. The use of the mobile boat-washing unit was generously donated for the weekend of the event by Huron Pines. Thanks to the boat-washing unit, the CAKE CISMA was able to offer free boat-washes to any kayakers interested, as well as help to inform and draw attention to the issue of invasive species.



Thank you, Paddle Antrim, for organizing such a fantastic event and for thinking to include us! The Elk River Chain of Lakes is perhaps Antrim County's greatest natural resource; it is certainly something Antrim County is famous for across the state and a source of great pride for county residents. We are grateful to play a role in its preservation. Special thanks to Antrim Conservation District for assisting with the boat wash! Always remember to decontaminate your boats and gear when recreating out on the Great Lakes and in our inland waterways by removing all invasive species before moving on to your next adventure!

CAKE CISMA NEWS

Battling Aquatic Invasives on the Elk River Chain of Lakes

The Dole Family Foundation has generously awarded the CAKE CISMA with funding to battle both purple loosestrife and invasive phragmites on the Elk River Chain of Lakes for 2019-2020! The CAKE field team has worked tirelessly this summer to survey the entire Upper Chain of Lakes. Thank you to our project partners for assisting us with initial surveying this year! Treatments will be performed next year.

To report invasive phragmites or purple loosestrife on the Chain of Lakes or anywhere else throughout the CAKE CISMA service area, contact strike team lead at cakeisst@gmail.com.



Photo by Linda Gallagher



Beaver Island Internship 2020

CAKE is excited to report that the Michigan Department of Natural Resources has approved funding for the purpose of invasive species management, control and education on Beaver Island. The CAKE CISMA is partnering with Central Michigan University to recruit two invasive species interns from CMU for the summer of 2020! For more information on this project and how to apply, contact the CAKE CISMA at 231-533-8363 or benjamin.vandyke@macd.org. This project is funded by the Michigan Invasive Species Grant Program.

Now hiring: HWA Survey Field Technician

Looking for in-field survey experience? Do you enjoy snowshoeing through the woods in winter? Do you have a fondness for evergreen trees? The CAKE CISMA is seeking a survey field technician for Hemlock Woolly Adelgid (HWA) surveys. Surveys will resume hemlock surveys in November as part of a 500 mile connected network (facilitated by The Nature Conservancy) working to detect hemlock woolly adelgid in coastal areas on Lake Michigan. Hemlock woolly adelgid is an invasive insect that is an obligate parasite to hemlocks; it causes tree mortality by preying upon the tree's energy reserves. This position will pay \$15.00 per hour for 36-40 hours a week. The position is seasonal is anticipated to begin in early November of 2019 and finish at the end of March, 2020. Preferred applicants will have a B.S in Biology, Environmental Science, Ecology or a related field, mapping and GIS experience, an ability and willingness to work in adverse/cold conditions outside for long periods of time, and a passion for conservation.



Burdick University Fort Wayne

Species in Focus: Invasive Phragmites

Did you know? This species forms extremely dense stands that can make removal quite difficult, especially when it spreads from its rhizomes. It typically found in wetlands, roadside ditches, banks of lakes, ponds and streams. Invasive phragmites is a restricted invasive species in the state of Michigan, due to its ability to spread rapidly and degrade biodiverse habitat for native species. For more information on invasive phragmites and other aquatic invasive species, contact the CAKE CISMA at 231-533-8363, or benjamin.vandyke@macd.org.



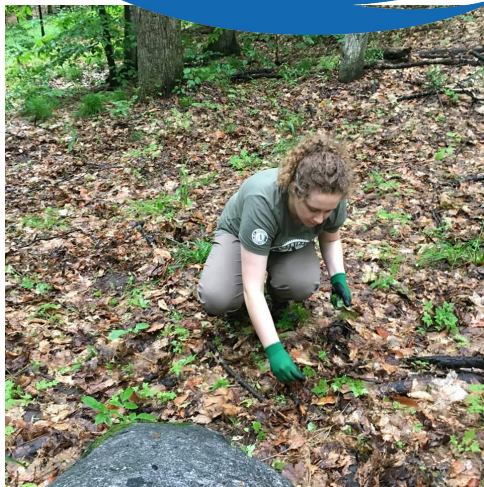
A N T R I M **CONSERVATION DISTRICT**

Partner Spotlight:

Antrim Conservation District

The Antrim Conservation District (ACD) was formed in 1947 by local farmers to conserve, improve, and maintain Antrim County's soil and to promote efficient and economical use of the land. ACD serves as the first stop for local citizens, farmers, landowners, conservation groups, and county government for their natural resource needs. The District's mission is to promote the exploration and conservation of Antrim County's natural resources.

In July, ACD Conservation Program Assistant McKenzie Fox and ACD AmeriCorp member Emma Costantino hosted two volunteer garlic mustard pulls at Glacial Hills Natural Area. Garlic mustard is an allelopathic invasive; it emits chemicals into the soil that inhibits the growth of surrounding plants. Removal of this species requires a lot of sweat and back breaking work but can eventually lead to healthy habitat restoration for native flora and fauna. Thank you, McKenzie, Emma, and ACD, for doing your part to conserve and restore your natural areas!



Best of luck, Roger!

Roger has been an immense help this past summer to the CAKE CISMA field crew. He has worked diligently in many areas, including surveying terrestrial and aquatic plants by foot and kayak, performing herbicide treatments, and giving long hours for studying and data entry. We are thankful for his hard work and positive spirit, no matter the hour or weather. Roger returns to school to finish up his B.S in Fisheries and Wildlife Management. Good luck with senior year, Roger! We appreciate you and all your efforts this past summer.

"The wildlife and its habitat cannot speak, so we must and we will." - Theodore Roosevelt



Do you have questions on invasive species control, management or education? Use any of the following contact information to get in touch with us, we'd love the opportunity to help in any way we can:

Program Coordinator email: benjamin.vandyke@macd.org

Strike Team email: cakeisst@gmail.com

Office Phone Number: (231)-533-8363 (extension 5)

Or, drop in for a visit! We are located in the Antrim Conservation District at 4820 Stover Road, Bellaire, MI 49615 Our office hours are 9:00am - 4:00pm, Monday through Friday.

You can also follow us on Facebook for regular posts about invasive species control and identification, partner updates and news on invasive species.

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