



**North Country  
Cooperative  
Invasive  
Species  
Management  
Area**

*Fighting Invasives, Protecting Assets, Restoring Habitats*



## 2022 Annual Report

2022 was another big year for NCCISMA! We completed five projects this past summer, and started work on four more.

New funding sources received in 2022 include Great Lakes Restoration Initiative (GLRI) funding from both the U.S. Forest Service (USFS) and Michigan department of Environment, Great Lakes, and Energy (EGLE) – administering a pass-through grant from the U.S. Environmental Protection Agency (EPA). These two grants funded surveys of valuable habitats, as discerned from Michigan Natural Features Inventory (MNFI) data, and surveys of lakes/wetlands for European frogbit (EFB), respectively. Other funding received in 2022 was from the Michigan Invasive Species Grant Program (MISGP). Beyond the base funding, intended to cover CISMA minimum operating expenses, \$40,000 was received to expand wild parsnip survey and control in the region during 2022, and \$234,400 was received for a pilot program to engage off-road vehicle (ORV) enthusiasts in stopping invasive spread to, from, and between trails.

<b>NCCISMA 2022 Funded Projects</b>			
<b>Project</b>	<b>Funded by</b>	<b>Grant Amount</b>	<b>Remaining \$</b>
CISMA Core 2021 Base Funding	MISGP	\$60,000	0
EFB Survey & Wild Parsnip Control	MISGP	\$23,000	
Treatment Instructions Videos	USFS-GLRI	\$25,000	0
Seed Collection & School Outreach	Cargill Corp.	\$3,000	0
Supplemental Outreach Funding	USFS-GLRI	\$2,798	0
Control on USFS Lands in 2022	USFS-GNA	\$25,000	0
*EFB Survey & Control	EGLE-GLRI	\$19,567	\$11,621
Watershed Outreach	MISGP	\$191,900	\$36,359
Stopping Spread from Roads	USFS-GLRI	\$44,000	\$10,894
Parks as Showplace	USFS-GLRI	\$50,000	\$14,632
*Prioritized Control in Vulnerable Habitats	USFS-GLRI	\$50,000	\$43,225
CISMA Core 2022 Base Funding	MISGP	\$60,000	\$6,821
*Wild Parsnip Survey & Control	MISGP	\$40,000	
*Off-road Trail User Engagement	MISGP	\$234,400	\$198,647
Control on USFS Lands in 2023	USFS-GNA	\$25,000	\$25,000
<b>Total Remaining Funds</b>			<b>\$347,199</b>

\*Received in 2022

## Preventing Invasive Spread Through Public Engagement

Empowering the public with knowledge about invasive species is well known as the most effective means of preventing spread. In 2022 NCCISMA performed extensive outreach, some of which was planned to reach grant deliverables, but most was achieved unexpectedly, either by invitation to participate at partner events, or through interviews by the press. One notable public engagement activity included a walking tour that ended with a work day for Ferris State University honors students. The students were trained on herbicide safety and the cut-stump application technique, and made quick work of controlling about an acre of Oriental bittersweet at River Street Park in Big Rapids.



The treatment instruction videos project, funded by GLRI through the USFS, ended with eight completed videos. The final three of these, were produced in 2022. These included one on each the life cycle and control methods for spongy moth, and another on how to control autumn olive. Since the USFS grant ended, two additional videos were produced thanks to funding from the watershed outreach grant from the MISGP, *European Frogbird Displaces Local Resident* and *How to Control Invasive Phragmites*. Each of NCCISMA’s educational videos are about two minutes long. They are packed with helpful tips, as well as being fun to watch. They can be viewed at [YouTube.com/@NCCISMA](https://www.youtube.com/@NCCISMA).

NCCISMA’s social media presence also continued to grow in 2022, with 164 Instagram followers, 251 Facebook followers, and 75 subscribers to our YouTube channel.

2022 Public Engagement		
Description	# Efforts	# Impressions
NCCISMA Articles in Print/Electronic Publications	21	77,329
Presentations at Partner Events/Meetings	9	235
Booth at Partner Events	4	320
Interviewed for Radio, Television, or Print	13	66,000
Social Media Postings	126	44,824
Educational YouTube Videos Produced and Posted	5	3,428
Updates & Unique Visitors to NorthCountryInvasives.org	8	771
Educational Activities with Local Students	6	388
Volunteer Workdays	7	57
Presentations to Local Government	5	89
NCCISMA Hosted Events	9	184
Statewide/Midwest professional presentations	2	146
Educational Signs Installed	20	
Spontaneous Outreach in the Field	19	36

## Engaging ORV Recreationists in Protecting the Trails from Invasive Species

NCCISMA was pleasantly surprised to receive an MISGP grant in 2022 to engage ORV recreationists in stopping the spread of invasive species to, from, and between the trails. This project is unique in its approach to meeting a fairly elusive demographic. Intuitively it would seem this group could be easily reached by meeting them at trailheads, but since a lot of people drive their ORVs straight to the trails at the nearest access point to where they are staying, this has not always proven the most effective means to reach this group. This project intends to get messaging on invasive species and decontamination into as many places as possible that are likely to be visited by members of the ORV community. This will include rental cabins, motels, Airbnb's, campgrounds, parts stores, gas stations, liquor stores, and roadways, as well as where these recreationists often congregate after their ride, at local bars.



NCCISMA is hosting bar trivia competitions, chock-full of information on how invasive species can be spread and tips for decontamination to minimize spread. The first of these trivia nights was held at Oak Grove Tavern in Irons. Participants expressed how much fun they had, and that they were surprised by how much they had learned. NCCISMA has been working with a local graphic artist from Charmellow Design to develop original artwork to brand the ORV-focused messaging to be used for this project. This artwork will be used on fridge magnets, stickers, posters, billboards, and cool prizes for the bar trivia competitions.

## Survey, Control, and Restoration

The following table summarizes survey, control, and restoration performed in 2022

2022 Survey, Control, and Restoration						
	Lake	Mason	Mecosta	Missaukee	Osceola	Wexford
Mechanical (sites/acres)	1/1.5	8/24	5/24	N/A	48/73	10/13
Chemical (sites/acres)	10/20	14/22	15/16.5	4/4	62/122	17/13.5
Contracted (sites/acres)	N/A	N/A	1/4	N/A	4/78	2/24.5
Strike-team-for-hire (sites/acres)	N/A	12/18.5	8/6.5	4/4	4/4	12/9.5
*CRC strike-team jobs (sites/acres)	N/A	8/23.5	N/A	8/16.5	N/A	35/37
Invasive species surveys (acres)	969	1,109	2,374	1,135	1,242	1,746
Restoration work (acres)	0	10	0	0	0	2

\*CRC = County Road Commissions

## A Big Year for Surveys!

Surveys are critical to know the extent of invasive species problems in the region, and even more so, to catch outlier populations early, while they can still be eradicated. In 2022 NCCISMA performed surveys as part of eight different projects/initiatives, covering 8,575 acres. Surveys performed include:

- Three miles of unpaved trails at Cartier Park in Ludington.
- Six private properties along the Muskegon River, equaling 671 acres.
- Ten lakes, including the six lakes of the Martiny Chain of Lakes and Haymarsh Lake in Mecosta County; Dead Stream Flooding in Missaukee County; Hodenpyle Pond in Wexford County; and Lake Olga in Lake County. The focus of these surveys was on European frogbit, and fortunately none was found.
- 29 linear miles of the Little Manistee River, as part of work under the Good Neighbor Authority through the Huron-Manistee National Forest.
- 473 linear miles of ORV trails. This is part of the ORV project funded by MISGP. Collected data will be incorporated into maps, advising of high priority invasive species on the trails, that will be installed at relevant trailheads.
- 90 miles of Missaukee County roadsides. Looking at Midwest Invasive Species Information Network (MISIN) data it appeared there was an incomplete inventory for the eastern half of Missaukee County, so NCCISMA used their discretionary fund to enable these surveys. The good news is that while several priority species infestations were discovered with these surveys, Missaukee County is actually relatively pristine with regards to invasive species.
- 1,956 acres of known high value and sensitive habitats. Data from the Michigan Natural Features Inventory (MNFI) was employed for survey location planning. We were pleased to find very few invasive species problems with these surveys.
- 345 miles of roadsides were surveyed for wild parsnip in Wexford, Lake, and Osceola Counties. Thanks to our awesome volunteers, Dan Valley, Charmaine Lucas, and Donna Kirchhoff, for the generous amount of time they put into driving NCCISMA staff while doing windshield surveys of the roadsides!

### **Successes in Invasive Species Control**

NCCISMA is pleased to report on successes observed as a result of ongoing control efforts. This success has been achieved through an adaptive management approach that utilizes established principles of integrated pest management. For instance, with Japanese knotweed, we alternate our treatments of this species from year to year between three different control methods. While Japanese knotweed is a state prohibited species, as there is no reliable documented research indicating that it can ever be eradicated once it is introduced into an area, NCCISMA has seen promising results with the methods we are using. Consistently we are seeing 75-95% control achieved on Japanese knotweed a year after treatment, and there are eight sites, that we have returned to, to find no regrowth a year later, and one site with no regrowth two years later. We can report similar successes with Phragmites, and hope to find the same to be true with wild parsnip. On a small scale NCCISMA has found success on controlling wild parsnip with a one-two-three punch strategy during a single growing season. Within three years using this method, a section of the white pine trail, between Leroy and Tustin, was reduced to 5% of its original density of wild parsnip, and six other sites in Mason County were found to have no regrowth after three years of treatment. This same strategy was applied in 2022 on a much broader scale, being done on 80%, or 149 acres, of wild parsnip within NCCISMA.

### **Cartier Park as a Showplace for Control and Restoration**

Once invasive species control has been realized, habitat restoration is generally the goal. Ideally this occurs naturally as invasives are removed, opening the soil to enable colonization from nearby native seed sources. Unfortunately, often there are no native seed sources nearby, or the seedbank is fraught with invasive seeds. In these instances restoration requires purposeful planting of well-chosen native alternatives.

In the City of Ludington, Cartier Park is a highly used public park. It offers a 1.5 mile paved trail and a 3.5 mile mountain bike trail. Unfortunately, this park is also a hotbed of invasive species. With GLRI funding, from the USFS, in 2022 NCCISMA devoted considerable resources to creating a showplace for restoration and control at Cartier Park. The demonstration plot for this is a three acre area that was overrun by an abundance of large tree-of-heaven, covered with a mass of Oriental bittersweet vines, with a groundcover mix of garlic mustard, mugwort, and myrtle. Removal of the invasives here, and subsequent restoration planting, was truly a group effort. A Few Friends of the Environment of the World (AFFEW) hand-pulled the groundcover invasives, NCCISMA staff herbicided the tree-of-heaven and Oriental bittersweet, and City of Ludington Department of Public Works (DPW) staff downed, removed, and chipped the tree-of-heaven, once it was dead. NCCISMA then planted over 60 native trees and shrubs in the wooded area here, and, along with the help of AFFEW volunteers, planted over 600 native plant plugs. Wood chips from the tree-of-heaven were used to mulch around the new plantings. This mulch will hopefully suppress the regrowth of the invasive ground covers. To draw attention to the efforts here, NCCISMA designed and purchased informational signs, which DPW staff installed at the park. Though follow-up control in this restoration area will no doubt be needed, it is expected that the work achieved in 2022 will have greatly improved the habitat here. Be sure to visit Cartier Park in the summer of 2023 to see the change!



### **Hemlock Woolly Adelgid Update from Mason-Lake Conservation District**



To date, Hemlock Woolly Adelgid (HWA) remains tied to a five-mile buffer along the shoreline of Lake Michigan. It is believed that the moderating effect of the lake on area temperature is needed for HWA's survival in Northern Michigan. With all of the known HWA within NCCISMA's geographical boundary being in Mason County, Mason-Lake Conservation District (CD) continue to take the lead on efforts to control its spread. Last season (winter 2021-2022), Mason-Lake CD surveyed 4,590 acres and detected HWA in 16 locations. So far this season (winter 2022-2023), they have surveyed 1,800 acres in Mason County for HWA. These surveys were focused along the Lake Michigan lakeshore, Hamlin Lake, and surrounding areas. With these surveys HWA was

detected in 8 locations – generally being light infestations, on just one or two trees. Those trees will undergo treatment in summer of 2023. Treatments provide effective control for about five years. Mason-Lake CD is also assisting Northwest Michigan Invasive Species Network (NWISN) with delimiting the HWA infestation that was found in Benzie County this year. That infestation is the current known northern front of the HWA invasion in Michigan. Trees here will also be treated in summer of 2023.

Statewide HWA treatment has been a joint effort between Mason-Lake and Ottawa CDs. In total this past year, 22,720 hemlocks were treated, on 120 different parcels, covering 1,020 acres.

### **NCCISMA is Always Here to Help!**

Whether it's plant ID, instruction on best management practices for invasive species, or restoration planting advice, NCCISMA remains a resource for the community. In 2022 NCCISMA staff responded to nearly 150 public inquiries. In addition to sharing our expertise in invasive species management, NCCISMA continues to have a strike-team-for-hire program, providing control, at cost, of regional high priority species, to public and private landowners and land managers. To learn more about NCCISMA and our programs visit our website at:

[NorthCountryInvasives.org](http://NorthCountryInvasives.org)



NCCISMA's team is looking forward to continuing to serve the residents of Lake, Mason, Mecosta, Missaukee, Osceola, and Wexford Counties in 2022!

# 2022 NCCISMA Field Work

