



Northwoods Cooperative Weed Management Area

*Working Together to Protect Northern Wisconsin
from Invasive Species*

2020 Annual Report



The Northwoods Cooperative Weed Management Area (NCWMA) is a collaborative group of state, county, and federal agencies, tribes, municipalities, community organizations, non-profits and individuals who have come together to combat invasive species in northern Wisconsin (Douglas, Bayfield, Ashland, and Iron Counties). This report summarizes the accomplishments of the NCWMA in 2020. Ramona Shackelford, the NCWMA Coordinator, facilitated four partner meetings and three steering committee meetings. In addition, the NCWMA had two special meetings. During the January 17th special meeting, Hilary Markin of the U.S. Forest Service facilitated the meeting to revise the NCWMA By-Laws. The new by-laws were approved at the steering committee meeting in March and are available on the [NCWMA website](#). During a March 3rd special meeting, Ramona Shackelford and a small group of NCWMA partners met with representatives of Enbridge to discuss the pipeline re-route that is planned to go through a parcel of land the company purchased which has garlic mustard throughout it. Those attending learned about Enbridge's plans and discussed the importance of invasive species management along the pipeline and during pipeline construction. Ramona also attended Land Conservation Committee (LCC) meetings in Bayfield and Douglas Counties, along with a meeting of the Bayfield County AIS Program. Ramona attended two virtual CISMA Conferences (April 22nd and October 14th) which were organized by the Wisconsin DNR and brought together the CISMAs (Cooperative Invasive Species Associations) and CWMA's throughout Wisconsin to share and discuss their work.



Figure 1: Stacey Dietrich washes boats at the Gile Flowage in Iron County.

Education and Prevention

Ramona Shackelford, Teresa Maday (Northern Great Lakes Visitor Center [NGLVC], Susan Nelson [NGLVC], Andy Teal (Bayfield County AIS Coordinator), and Scott Caven (Ashland County AIS Coordinator) developed a summer series of webinars as part of the Invasive Species Identification Day program series that normally occurs monthly in the summer at the NGLVC. Programs occurred on June 5th, July 10th, August 21st, September 25th, and October 16th. Ramona facilitated four of the five programs and helped make and edit three videos from the field for these events (15 to 30 minutes long). The video programs include identification and management of [garlic mustard](#) (June 5th), [purple loosestrife](#) (August 21), and [buckthorn](#) (October 16). The COVID-19 pandemic prevented Ramona from taking the NCWMA booth to festivals and other events. Ramona gave a PowerPoint presentation about invasive species at the Town of Washburn's board meeting in January.

Ramona created an interactive poster, "[Multi-agency Cooperation in Managing Garlic Mustard](#)," for the Upper Midwest Invasive Species Conference (UMISC) in November 2020. Due to COVID-19, the conference was virtual. Ramona sent out informational e-mails 12 times using Mail Chimp. One article, "[Invasive Garlic Mustard Gaining Ground](#)," was published in the Superior Telegram after a reporter attended the June 5th Invasive Species I.D. Day webinar. Ramona created and sent the [NCWMA Spring Newsletter](#) to the e-mail list, put it on the website, and shared it on Facebook. Ramona and NCWMA staff posted on Facebook 46 times. Nineteen posts had an "engagement" 20 or greater, and 27 posts had a "reach" greater than 70. Ramona added updates, meeting minutes, the newsletter, and detailed information on invasive species to the NCWMA website. The number of visitors to the NCWMA website increased from 17,704 in 2019 to 18,909 in 2020, which is an increase over 6 percent.

Portable Boat Wash: The U.S. Forest Service provides funding to the NCWMA to maintain a portable high-pressure boat wash to decontaminate boats as they leave or enter water bodies. The NCWMA weed crew ran the boat wash ten days (Figure 1). In addition to giving Clean Boats Clean Waters (CBCW) surveys at boat landings, the weed crew took the boat wash to boat landings ten times from the end of July to early September. During these days, they contacted 56 boaters and washed 27 boats. Fewer boats were washed this year because the boat wash went out fewer times due to the pandemic and it only went out on Fridays and Thursdays due to the set schedule of the weed crew.

Control and Management

The NCWMA Toolshed: The NCWMA continues to provide a toolshed for the public to check out tools for treating invasive species. The NCWMA lent weed wrenches for digging up buckthorn to the Iron County Land and Water Conservation Department (LWCD) in 2020. The shed also stores gloves, a weed whacker, loppers, machetes, and shovels that were used by the weed crew for manual control efforts in 2020.

The NCWMA hired Stacey Dietrich and Paul Karpinski who made up the two-person NCWMA weed crew (invasive species technicians). They began June 1st. Paul worked into August and Stacey worked to early October. Ramona and the weed crew dug up a site of **cut-leaf teasel** near Port Wing three times. The NCWMA weed crew found a site of **giant hogweed** in July. Ramona cut the seed heads off the plants and then Zach Wilson of the Iron Co Land and Water Conservation Department (LWCD) and Ramona treated the plants with herbicide in August. The NCWMA weed crew dug up and cut **garden valerian** along the Washburn Lake trail on August 3rd.

Purple Loosestrife Biocontrol

Ramona, the NCWMA weed crew, Bayfield County LWCD, and Ashland County LWCD worked together to dig up and pot 40 pots of purple loosestrife on June 11th. They grew the plants in pools and covered with nets at the Northern Great Lakes Visitor Center as part of a purple loosestrife biocontrol project. They gathered beetles to rear on plants from local sites on June 12th. The purple loosestrife and beetles were cared for until the group took them to sites to allow the beetles to disperse. Purple loosestrife plants with beetles were set in purple loosestrife populations in Ashland County on July 1st and the Sioux River Slough in Bayfield County on July 9th.

Garlic Mustard

Ramona organized hand-pulling events with partners. Due to the COVID-19 pandemic, volunteers and student groups did not assist in hand-pulling events. Ramona and/or the NCWMA weed crew attended events to hand-pull garlic mustard for 17 field days. They worked to hand pull at ten different sites. A new large site of garlic mustard was found in Springstead over 20 acres. In addition, seven other new sites were found in the cities of Hurley, Bayfield, Ashland, and Washburn. The largest sites of garlic mustard within the NCWMA are along the Montreal River in Hurley and the Bad River around Mellen. Ramona took data on plots at both of these sites to monitor changes in garlic mustard density compared to native plants. Data from the plots were used to make the virtual poster at the UMISC conference.

Hand-pulling along the Bad River Floodplain was done daily from May 18th to May 22nd (Figure 3). Ramona and Melissa Kraft from Bayfield Co LWCD assisted four of those days. The Ashland County LWCD assisted one day. The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) assisted daily throughout this week as well as the following two weeks. The 70 acres was hand-pulled twice with GLIFWC's efforts. The NCWMA weed crew hand-pulled on June 5th.

Hand-pulling was done along the Montreal River on May 27th and 28th with a group of five to eight partners from Iron Co. LWCD, GLIFWC, Bayfield Co, LWCD, and the Ottawa National Forest. The NCWMA weed crew returned to hand pull garlic mustard along the Montreal River on June 8th and 15th. Small groups assisted with hand-pulling in Superior on May 28th, Bay City Creek in Ashland on June 1st, the Washburn Wastewater Treatment Plant on June 2nd, and at the new Springstead site on June 3rd.



Figure 2: Zach Wilson (Iron Co LWCD) treats giant hogweed in Iron County.



Figure 3: The NCWMA weed crew, Paul Karpinski and Stacey Dietrich, take purple loosestrife with biocontrol beetles into the Sioux River Slough.



Figure 4: The first day out hand-pulling garlic mustard along the Bad River Floodplain.

Table 1: Documented sites of different knotweed species in each NCWMA county at the end of 2020 and the number of sites treated in each county in 2020. Twenty-nine sites were added to the knotweed log of the NCWMA.

County	Bohemian	Dwarf Japanese	Giant	Japanese	Unknown	Total Known	Knotweed sites treated in 2020
Ashland	3		3	22	1	29	9
Bayfield	12	1	86	38	28	166	49
Douglas	6			17	25	48	5
Iron			6	18	2	26	9
Total	21	1	92	95	56	269	72

Knotweed

Currently, the NCWMA has 269 documented knotweed sites. Twenty-nine sites were added in 2020. By far, Bayfield County has the most documented sites, especially in the City of Bayfield, where giant knotweed is the dominant species (Table 1).

In 2020, Ramona and the NCWMA weed crew visited the 19 knotweed sites that were treated with Polaris AC in 2019 by a contractor. Of these, four sites had impressive results, with little or no growth throughout 2020. Thirteen sites had less impressive results, with less dense and smaller plants, but the plants covered a similar area. Two of the 19 treated sites had noticeable tree and bush damage that was strongly associated with the herbicide treatment. Both of these sites had been cut before the treatment in 2019, but the knotweed had poor regrowth when the treatments were done.

In 2020, the NCWMA crew had 16 field days surveying and cutting 92 knotweed sites (in June and July). Sites with landowner permission that were associated with wetlands and forests were given the greatest priority for herbicide treatment. The crew spent 22 field days treating knotweed with Polaris AC (in August and September; Figures 5 & 6). Ramona worked in the field 14 of these days. Most knotweed grew two to four feet by the time the herbicide treatment was completed. The effects of the herbicide treatments will be evaluated in 2021.

Buckthorn

The NCWMA weed crew treated buckthorn along the Washburn Lakeshore Trail through cut stump treatments four partial field days. In addition, they surveyed for and treated buckthorn in Ashland's parks and along trails in Ashland.

Ramona organized two trips to Clough Island in the St. Louis River on September 26th (National Public Lands Day) and October 2nd (Figure 7). Ramona publicized the events as part of the Clough Island Buckthorn Project. In addition to publicizing the events, Ramona researched the best way to take volunteers to the island with COVID-19 restrictions. She found canoeing or kayaking from Spirit Lake Marina in Duluth was the closest starting point and they could rent canoes or kayaks from the Marina as well as launch personal canoes. For each event, volunteers and NCWMA staff canoed to the island and used weed wrenches, hand-pulling, and cut stump herbicide to treat buckthorn on the island. Nine people attended the first event and five people attended the second event. Over the course of the two events, the groups treated buckthorn, as well as invasive honeysuckles and Japanese barberry across 4.7 acres. Ramona created a video of the work on Clough Island that can be used to promote the events in future years as well as educate people about identifying and removing buckthorn.



Figure 5 (top): A site of giant knotweed before cutting and treating. Figure 6 (bottom): The same site on the day of the herbicide treatment after it was cut and grew back for one month.



Figure 7: Volunteers canoe to Clough Island on Public Lands Day, September 26th, to help treat buckthorn.

The NCWMA 2020 Budget Summary

In the beginning of 2020, the NCWMA funding balance was \$66,387.4 (Table 2). The U.S. Forest Service's Great Lakes Restoration Initiative-Cooperative Weed Management Area's grant (USFS-GLRI-CWMA) had a balance of \$37,885.86. The NCWMA also had two Weed Management Area-Private Forest Grants (WMA-PFGs) through the Wisconsin DNR totaling nearly \$22,000. One of these ended in June, but was extended through September due to the pandemic. Grant reports and reimbursements were sent for the grants that ended during the year.

The NCWMA received nearly \$99,000 in additional funding during the year. In January, the NCWMA applied for a USFS-GLRI-CWMA grant for \$40,000, which was fully funded in June. An additional \$30,000 of funding through the U.S. Forest Service was added to this grant agreement to assist in hiring future NCWMA weed crews and \$19,000 was added for hiring staff to run the boat wash. A third WMA-PFG through the Wisconsin DNR was awarded in July for \$9,937.38. In addition, the NCWMA was funded to organize trips with volunteers to Clough Island to treat buckthorn which totaled \$4,689.66. Expenses for the year totaled \$73,232.75. The primary expenses were salaries for the NCWMA Coordinator and the seasonal staff (Table 3). Other expenses included travel, rent, supplies, and website costs. On January 1, 2021, the NCWMA had a balance of \$91,786.75

Table 2: NCWMA Expenses for Each Grant and Fund Balance

	Available funds: Jan 1, 2020	Additional Funds	2020 Expenses to 1/1/2021	Balance 1/1/2021	Completion Date
USFS GLRI CWMA	37,885.86	70,000.00	49,133.76	58,752.10	9/30/2023
USFS GLRI Boat Wash		19,000.00	3,165.44	15,834.56	9/30/2023
DNR-WMA 19-0002	6,963.85		6,963.85	0.00	9/30/2020
DNR WMA20-0002	14,990.00		7,727.29	7,262.71	6/30/2021
DNR WMA21-0006		9,937.38		9,937.38	6/30/2022
DNR Knotweed Control (2)	1,552.75		1,552.75	0.00	6/30/2020
Clough Is Buckthorn Project	4,995.00		4,689.66	0.00	12/31/2020
	66,387.46	98,937.38	73,232.75	91,786.75	

Table 3: Break-down of the 2020 NCWMA Expenses

The NCWMA coordinator's salary	\$45,885.51
Salary of NCWMA weed crew	\$16,879.39
Mileage	\$4,240.85
Rent, website, printing and supplies	\$6,227.00
	\$73,232.75



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PARTNERS

**Ashland County Land and Water
Conservation Dept.**

**Bad River Band of Lake Superior
Chippewa**

**Bayfield County Land and Water
Conservation Dept.**

**Douglas County Land and Water
Conservation Dept.**

**Iron County Land and Water
Conservation Dept.**

**Great Lakes Indian Fish & Wildlife
Commission**

**National Park Service Apostle
Islands National Lakeshore**

**National Park Service, St. Croix
National Scenic Riverway**

**Red Cliff Band of Lake Superior
Chippewa**

**USDA Forest Service, Chequamegon-
Nicolet National Forest**

**U.S. Fish and Wildlife Service,
Whittlesey Creek National Wildlife
Refuge**

**University of Wisconsin Extension -
Douglas County**

**Wisconsin Department of Natural
Resources**

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