



# The AIS Current

Michigan's Aquatic Invasive Species Newsletter:  
The current wave of AIS information.

Michigan's AIS Program is cooperatively implemented by the Michigan Departments of Environmental Quality (MDEQ), Natural Resources (MDNR), and Agriculture and Rural Development (MDARD).

## Michigan Invasive Species Grants Program Awards more than \$4 Million for Invasive Species Projects

Last February, the MDNR announced the award of 20 invasive species grant projects totaling more than \$4 million under the Michigan Invasive Species Grant Program.

The grant program is central to Michigan's new invasive species initiative, which brings a multidepartment, comprehensive approach to the ongoing problem of harmful, nonnative invaders such as the Asian carp. The initiative enlists the experts of the MDNR, MDEQ, and MDARD.

Projects funded in this round of grants include plans to:

- Enhance the regional collaboration of the *Clean Boats, Clean Waters* campaign to support prevention, outreach, and education efforts statewide.
- Empower several Cooperative Invasive Species Management Areas to detect, respond to, and manage invasive species
- Update and continue support for an online invasive species database and reporting system through the Midwest Invasive Species Information Network.

If your organization is interested in undertaking an invasive species project, please consider attending one of the 2015 grant workshops to learn about funding opportunities available through this year's program. The workshops will

provide information on program goals, 2015 focus areas, applicant eligibility, and the application procedure.

Workshops are set for:

Mackinaw City – Thursday, June 25  
1:00-3:00 p.m.  
Audie's Restaurant  
314 Nicolet Street

Munising – Friday, June 26  
10:30 a.m.-12:30 p.m.  
Munising Township Hall  
E9630 Prospect Street

Hastings – Tuesday, June 30  
10:00 a.m.-12:00 p.m.  
Pierce Cedar Creek Institute  
701 West Cloverdale Road  
(optional collaboration session 1:00-3:00 p.m.)

Detroit – Tuesday, July 7  
10:00 a.m.-12:00 p.m.  
Outdoor Adventure Center  
1801 Atwater Street  
(optional collaboration session 1:30-3:30 p.m.)

Learn more about the workshops, MDNR grant programs and other opportunities at [www.michigan.gov/dnr-grants](http://www.michigan.gov/dnr-grants).

### Issue 5: Spring/Summer 2015

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Stay in the loop – sign up for updates on Michigan's Invasive Species Program!

Visit [www.michigan.gov/aquaticinvasives](http://www.michigan.gov/aquaticinvasives), click on the red envelope on the right hand side, enter your e-mail address, select "Invasive Species," and hit submit.

## AIS Watch List & New Additions to Part 413 of the NREPA

The MDNR and MDARD recently announced the addition of eight species to Michigan's list of prohibited invasive species. An additional species already on the list was also modified from a prohibited species to a restricted species.

Any species considered for listing as prohibited or restricted must be not native to Michigan. Prohibited species generally are not present or are in very limited areas, whereas restricted species are generally widespread and naturalized within the state.

The decision on the following seven species came during the November 6, 2014, meeting of the Natural Resources Commission, where MDNR Director Keith Creagh signed Invasive Species Order Amendment No. 1 of 2014.

Prior to this order, there were 33 aquatic species listed as prohibited or restricted. The following species were added to the prohibited species list:

- Stone moroko - part of the minnow family, this species is a known carrier of a parasite that can negatively impact other fishes.
- Zander - a close relative of the walleye, this species could compete with the native fish or reproduce with it and create a hybrid.

- Wels catfish - this fish is considered a serious danger to native fish populations.
- Killer shrimp - this species is an aggressive predator and could severely threaten the trophic levels of the Great Lakes by preying on a range of invertebrates.
- Yabby - this large crayfish would negatively impact other crayfish species.
- Golden mussel - similar to zebra and quagga mussels, this species has destructive qualities that would threaten native biodiversity.
- Red swamp crayfish - this species can quickly dominate water bodies and is virtually impossible to eradicate.

Additionally, rusty crayfish was moved from prohibited to restricted classification to allow for their limited possession for the purpose of destroying them for consumption, fertilizer, or trash. This species is already widespread throughout the state, yet regulations previously didn't allow for the collection of them for consumptive purposes.

"Crayfish trapping is a growing activity in Michigan and allowing our anglers to enjoy some table fare while assisting to remove an invasive species is a win/win," said Nick Popoff, Aquatic Species and Regulatory Affairs manager for the MDNR.

This order comes following a meeting of the governors of each of the Great Lakes states committing to blocking the spread of 16 "least wanted" aquatic invasive species through prohibitions and restrictions. Nine of the 16 already were prohibited in Michigan under the Natural Resources and Environmental Protection Act; 6 more were designated as prohibited with the signing of this order. The remaining "least wanted" aquatic invasive species is water soldier, an aquatic plant. MDARD has authority over plants and added water soldier as a prohibited species through the Commission of Agriculture and Rural Development in January.

For more information, contact Nick Popoff, MDNR, at [popoffn@michigan.gov](mailto:popoffn@michigan.gov); or John Bedford, MDARD, at



Water soldier. Credit: Francine MacDonald

### Additional Resources

Download the Midwest Invasive Species Information System mobile app to report and map invasive species where you live and travel:  
[www.misin.msu.edu](http://www.misin.msu.edu)



Midwest Invasive Species  
Information Network



## The Hemlock Woolly Adelgid - What Happens on Land Can Affect What Happens in the Water

More than 100 million mature hemlocks grow in Michigan, providing valuable habitat for a diversity of animals, including birds, deer, and fish. Because of its dense evergreen foliage and dominance in riparian habitats, hemlock plays an important role in moderating stream temperatures. Without the shade provided by hemlock, stream temperatures could rise threatening aquatic animals like brook trout that require cold water for survival.

The hemlock woolly adelgid (HWA) is a small, aphid-like insect that uses its long siphoning mouthparts to extract sap from hemlock trees. Native to eastern Asia, HWA was discovered in Virginia in 1951 and has since spread over an area from Georgia to Maine, decimating hemlock stands.

HWA has been detected in five counties in Michigan since 2009. The infestations were believed to have originated from hemlock nursery stock originating from HWA-infested areas of the United States. The nursery stock entered Michigan either before or in violation of Michigan's HWA quarantine. The quarantine has been in place since 2002 and restricts the movement of hemlock into the state, and includes a complete ban on the movement of hemlock from infested areas. Details are available at [www.michigan.gov/pestquarantines](http://www.michigan.gov/pestquarantines).

On May 11, 2015, the MDARD announced that HWA had been eradicated from three of the five counties with HWA infestations. Work continues in the remaining counties with hopes that by April 2016, barring any new detections of HWA, the MDARD will be able to announce that HWA has been eradicated from the state.

HWA infestation sites become candidates for being declared eradicated after infested trees are destroyed, insecticide treatments have been conducted on hemlock growing in close proximity to the infested trees, and at least three surveys, spaced out over the course of at least three years, where no HWA has been detected, have been completed.

At this time, no known established population of HWA exists anywhere in Michigan. Those who buy, sell, manage, or enjoy hemlocks and the benefits they provide need to remain vigilant for the presence of HWA, even in areas where it has been eradicated.

To look for HWA, examine the undersides of hemlock tree branches and look for white cottony

masses at the point where the needles attach to the branch. For additional information about HWA, including a map showing the areas in Michigan where HWA has been detected, please visit [www.michigan.gov/exoticpests](http://www.michigan.gov/exoticpests).

Management of HWA in Michigan is a cooperative effort between MDARD, MDNR's Forest Resources Division, and the U.S. Department of Agriculture's Forest Service.

To report suspected HWA: e-mail [MDA-Info@michigan.gov](mailto:MDA-Info@michigan.gov), call 800-292-3939, or utilize the Midwest Invasive Species Information Network Web site ([www.misin.msu.edu](http://www.misin.msu.edu)).



Close-up of a branch infested with hemlock woolly adelgid. Credit: Connecticut Agricultural Experiment Station Archive.



## Michigan's Terrestrial Invasive Species Core Team and State Management Plan

Michigan's terrestrial landscape provides invaluable economic, social, and ecological resources that are threatened by the growing problem of invasive species. Much like the State of Michigan Aquatic Invasive Species (AIS) Core Team, there is a terrestrial equivalent: the Terrestrial Invasive Species (TIS) Core Team with representation from multiple divisions in the MDEQ, MDNR, and MDARD, as well as the Michigan Department of Transportation.

This team has been working hard drafting a TIS State Management Plan (SMP). The TIS SMP will outline a statewide strategy to reduce the economic and environmental damage caused by terrestrial invasive species through collaborative efforts to prevent future invasions, detect and respond to new invasives, and manage and control existing ones.

This spring, the TIS Core Team developed a survey to involve partners in the drafting process of the SMP. This survey was sent to the TIS Stakeholder list, comprised of nearly 500 partners. Over 100 responses were received, which are helping to

guide the TIS SMP draft. Anyone who wishes to be included on the TIS Stakeholder list, please contact Ben Luukkonen, MDNR, at [luukkonenb@michigan.gov](mailto:luukkonenb@michigan.gov).

A draft of the TIS SMP will be ready for review this summer. A written comment period for the public will be announced through a press release. Participation in this review process is encouraged in advance of the plan's completion this fall.

To date, there has been a considerable amount of work done in regard to managing terrestrial invasive species. One such effort is highlighted in this newsletter (see "The Hemlock Woolly Adelgid – What Happens on Land Can Affect What Happens in the Water" on page 3). With the development of the TIS Core Team and implementation of the TIS SMP, a coordinated, statewide, strategic effort will more effectively limit the economic and environmental impacts of terrestrial invasive species throughout the state.

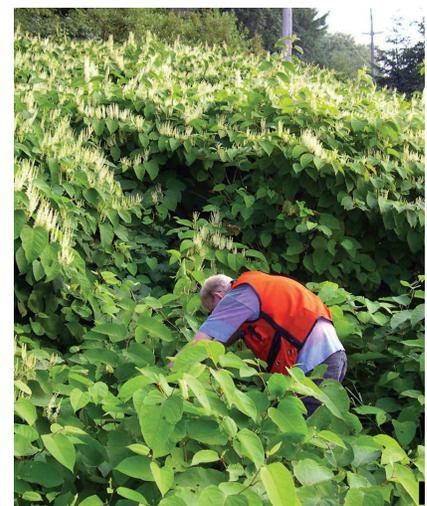
For more information about the TIS Core Team or SMP, please contact Sue Tangora, MDNR, at 517-420-0128 or [tangoras@michigan.gov](mailto:tangoras@michigan.gov).



Asian longhorn beetle



Pale swallow-wort (Photo: John M. Randall, Bugwood.org)



Japanese knotweed (Photo: Tom Heutte, USDA Forest Service, Bugwood.org)

### Additional Resources:

Visit [www.michiganinvasives.org](http://www.michiganinvasives.org) to learn about how the Michigan Invasive Species Coalition supports efforts of regional and local groups working to control invasive species in Michigan.



## Partner Spotlight: MDNR and Anglers of the Au Sable Partner to Protect Trout Streams

Michigan is known nationally for its excellent fishing opportunities. Michigan's trout fisheries are arguably the best of all and it's no accident that Trout Unlimited was founded along the banks of Michigan's Au Sable River. The trout fishing experience in Michigan expands well beyond the act of catching a trout. State agencies, nonprofit organizations such as Trout Unlimited, fishing organizations, and interested citizens have all committed to protecting Michigan's trout fisheries.

Despite numerous aquatic invasive species (AIS) establishments in the Great Lakes and inland lakes, the threat of AIS to Michigan's trout waters has received relatively little attention until recent years. However, in 2011 the risk hit close to home when our neighbor state of Wisconsin documented the first occurrence of a species that has the ability to negatively affect coldwater rivers and streams, the New Zealand Mudsnail (NZMS). At high densities, they out-compete native species that are an important food source for native trout. Furthermore, NZMS have no nutritional value for trout species that may feed upon them.

The AIS threats to our trout streams are not limited to NZMS. Didymo (commonly referred to as "rock snot") is an algae that has the ability to carpet stream bottoms and severely impact habitat utilized by fish for feeding and spawning. Didymo is impacting popular trout fishing rivers in the eastern, southern, and western states.



Wader Wash at Gates  
Au Sable Lodge

To date, neither NZMS has not been detected and Didymo has only had one isolated detection within Michigan waters. However, the risk of spreading AIS is linked with the movement of thousands of anglers across the country seeking out their next prized catch. During these types of trips, anglers often unknowingly visit infested waters where AIS have the ability to attach to waders and/or other gear and "hitch-a-ride" to the next destination. However, these unwanted hitchhikers can be stopped in their tracks when gear is properly cleaned. Simply put, keep your gear clean and help protect our world class fisheries.

The MDNR's Fisheries Division is committed to preventing further invasion and spread of AIS. The most recent initiative that the Fisheries Division and partner groups are spearheading is the development of wader washing stations. The installation of these stations allows anglers to clean waders before and after fishing trips to help protect against spreading AIS that may have attached themselves to the crevices of wading boots or other gear, while simultaneously educating anglers on the issue. The success of this initiative is solely based on the willingness and commitment of partners to maintain these stations at various fly shops. One such group that has committed to this partnership is the Anglers of the AuSable, who have agreed to maintain wader washing stations at multiple locations along the AuSable River near Grayling in 2015.

With the support from the Anglers, six wader wash stations were constructed in the spring of 2015 and placed at various access points along the Au Sable River. The MDNR provided the materials and the Anglers provided the construction and maintenance. The MDNR is hopeful that this partnership along the Au Sable River will provide motivation for other fishing organizations or interested parties along other rivers in Michigan to help reduce this risk of AIS through gear cleaning stations. For more information, please contact Seth Herbst, MDNR, at 517-284-5830 or [herbsts1@michigan.gov](mailto:herbsts1@michigan.gov).



## AIS Education & Outreach: Summer Highlights

### Michigan's 2nd Annual AIS Landing Blitz

The MDEQ, MDNR, and MDARD are planning the second annual Aquatic Invasive Species (AIS) "Landing Blitz" collaborative outreach event for June 26 through July 5, 2015, as part of Michigan's annual AIS Awareness Week, and you're invited to participate!

The Landing Blitz is a collaborative outreach campaign to raise awareness about preventing the spread of AIS through recreational boating and related activities. This year's Landing Blitz will build on the 2014 pilot event. Local volunteer partners will deliver consistent messaging about preventing the introduction and spread of AIS from the movement

of watercraft and equipment between water bodies at both public and private boating access sites throughout the state. Media involvement (press releases, local news stories, etc.) will also be used to create a larger impact.

More specifically, local partners such as lake associations, conservation districts, Cooperative Invasive Species Management Areas, and others will be empowered to meet with boaters during the event period to deliver "Clean, Drain, Dry" messaging. For more information, contact Kevin Walters, MDEQ, at [waltersk3@michigan.gov](mailto:waltersk3@michigan.gov) or 517-284-5473.



### Mobile Boat Wash Outreach Project

The MDEQ will again partner with the U.S. Forest Service and Michigan State University (MSU) to demonstrate how boats and equipment can be inspected and cleaned to prevent the unintended transport and spread of AIS.

The MDEQ's mobile boat wash serves as the primary outreach tool for MSU interns as they travel throughout the state this summer to various boating access sites and water-related community events. The MSU interns contacted over 500 boaters and anglers in 2014 and washed at least 137 boats. Additional promotion and increased public interest are anticipated to help surpass those numbers this summer. For more information, contact Kevin Walters, MDEQ, at [waltersk3@michigan.gov](mailto:waltersk3@michigan.gov) or 517-284-5473.



For more information on Michigan's AIS Program, please contact Sarah LeSage, AIS Program Coordinator, at 517-243-4735 or [lesages@michigan.gov](mailto:lesages@michigan.gov). You can also visit the MDEQ's AIS Web site at: [www.michigan.gov/aquaticinvasives](http://www.michigan.gov/aquaticinvasives) or the MDNR's Invasive Species Web site at: [www.michigan.gov/invasivespecies](http://www.michigan.gov/invasivespecies).