

# Douglas County

## AIS Strategic Plan Implementation Project Final Report



Prepared by: Carrie Sanda  
Prepared for: Wisconsin Department of Natural Resources  
April 7, 2014

To: Pamela Toshner, Lake Coordinator, WDNR  
From: Christine Ostern, Conservationist, Douglas County and  
Carrie Sanda, St. Croix Headwaters Watershed Coordinator;  
previously the Douglas County AIS Coordinator  
  
RE: Implementing Douglas County's AIS Strategic Plan Final Report (hereafter called AIS Program)

Below please find an outline of the activities, documents and participants of the Douglas County AIS Program. Copies of workshop presentations, products and handouts developed or used are attached. The Project was a successful collaboration between Douglas County and the UW-Superior Lake Superior Research Institute.

#### Clean Boats, Clean Waters Workshops and County CBCW Inspections

- Workshop dates: 5/26/11, 6/30/11, 4/25/12, 5/1/12, 4/24/13
- During the summer of 2011, two UWS students served as CBCW boat landing inspectors. They rotated around to various lakes in the county and also inspected boats on Lake Superior. During 2012, one student was hired to do inspections on Lake Superior landings in the city of Superior. All CBCW inspection forms have been entered into SWIMS.

#### Citizen Lake Monitoring Network Workshops

- Workshop dates: 7/16/11, 6/23/12, 7/28/12
- In an effort to better train Citizen Lake Monitoring workshop attendees, I offered the workshop on-site at local lakes and took people on the water to actively show them monitoring protocol. This is a newer approach and garnered 73% more attendance than the previous years' workshops.

#### Purple Loosestrife Biocontrol Workshop

- Workshop date: 4/28/12
- In addition to providing training, I also provided materials and served as an area coordinator for the WDNR Purple Loosestrife Biocontrol Program. Equipment was supplied to workshop attendees and also to Minong School.

#### Outreach and Education Tools Created

- During 2011 and 2012 I created two new displays for the AIS Program. The AIS Tri-fold display contains updated invasive species information, information on CBCW and CLMN, as well as DNR's decontamination information. The second display features information about Purple Loosestrife; how to identify and control it and the effects it has on native wildlife and plants. This display also includes a visual representation of the seed potential of various ages of Purple Loosestrife plants using pink play sand in three jars.
- I also put together a portable invasive species aquarium to bring to educational events. The portable aquarium contains a Goldfish, Mystery Snails, Brazilian Waterweed, Eurasian Watermilfoil and Curly Leaf Pondweed. It is used in accordance with our WDNR Transport Permit for educational purposes.

- For CBCW Workshops and other educational events, I created an AIS scavenger hunt. The scavenger hunt utilizes fake plants and laminated pictures to attach to a boat to model in real life where AIS can become attached.
- In 2012 I piloted an AIS and Ice Fishing campaign that included 5 popular local ice fishing tournaments. I utilized an existing WDNR pamphlet and provided 1,400 handouts for the tournaments to give to their participants.
- In 2013 *The Douglas County Monitor*, a newsletter which provides information on the County Program, AIS, workshops, and other topics was sent out electronically. A lot of positive feedback was received from the newsletter.
- I also developed a 3'x3' AIS Program Poster to display at educational events. This poster has information about all of the different facets of the County AIS Program.

#### Presentations

- Douglas County LWCD Meeting, County AIS Program Presentation, 7/19/11
- Drummond Middle School, Classroom AIS Presentation, 9/19/11
- Western Lake Superior Trolling Association, AIS Presentation, 9/21/11
- Douglas County LWCD Projects Field Trip, County AIS Program Oral Presentation, 10/17/11
- Douglas County LWCD Meeting, County AIS Program Update Presentation, 11/15/11
- Douglas County Fish and Game League Meeting, County AIS program Presentation, 9/7/11
- Crystal/Persons Lake Association, AIS Presentation, 8/4/12
- Nebagamom Lake Association, AIS Presentation, 6/30/12
- Douglas County Association of Lakes and Streams, Douglas County AIS Grant Oral Presentation, 10/16/12
- Superior/Douglas County Leadership Class, AIS and AIS Monitoring Oral Presentation, 9/18/12
- St. Louis River Estuary Science Summit, Douglas County AIS Program Presentation 3/9/12
- Barnes AIS Conference, AIS and Southern Douglas County Presentation, 4/20/13

#### Steering Committee Meetings

- Douglas County AIS Steering Committee Meeting, County AIS Program Presentation, 7/8/11
- Douglas County AIS Steering Committee Meeting, County AIS Program Presentation, 11/18/11
- Douglas County AIS Steering Committee Meeting, County AIS Program Presentation, 5/23/12
- Douglas County AIS Steering Committee Meeting, County AIS Program Presentation, 11/14/12
- These meetings give concerned citizens a chance to hear about the AIS program and upcoming projects. They also provide an opportunity for people to give feedback and suggest potential projects. These meetings have become very interactive and garner a lot of healthy discussion about AIS priorities, needs and are an opportunity to connect with other lake associations.

#### Educational Events with AIS Display and Specimens

- Watershed Festival, 6/4/11
- Northwest Wisconsin Lakes Convention, 6/24/11
- Lake Superior Day, 7/17/11
- Eau Claire Lakes Property Owner's Association Workshop, 8/20/11

- Brule Hatchery Family Fun Day, 6/2/12
- UW-Superior Science Night, 4/13/12
- Lake Superior Day, 7/15/12
- Douglas County Fish and Game League Expo, 3/23-3/25/12
- Captain's Platter Fishing Tournament, 6/9/12
- JAWS Fishing Tournament, 6/1-6/3/12
- St. Louis River Estuary Summit, 2/26-2/27/13
- Family Science Night at Northwestern Elementary School, 4/5/13
- UW-Superior Science Night, Purple Loosestrife Display, 4/19/13
- Douglas County Fish and Game League Expo, 4/19-4/21/13

#### K-12 Outreach and Education

- Assisted with LEEP Education Field Trip, Drummond Middle School, 9/22/11
- Assisted with LEEP Education Field Trip, Drummond Middle School, 5/14/12
- Assisted with Water Watch for Superior Middle School 7<sup>th</sup> graders, 5/17/12
- Assisted with LEEP Education Field Trip, Drummond Middle School, 9/19/12
- Applied to the Duluth/Superior Area Community Foundation Four Cedars Fund to support the Purple Loosestrife Beetle Bonanza Project. Received \$1140 to cover materials and busing costs. This project was designed to teach students about invasive species and Purple Loosestrife in particular. Students had the opportunity to grow Purple Loosestrife and raise beetles to later release.
- Purple Loosestrife Beetle Bonanza Day 1, Solon Springs 9th grade class, 2/1/13
- Purple Loosestrife Beetle Bonanza Day 1, 12 Superior 6th grade science classes, 2/4/13
- Purple Loosestrife Beetle Bonanza Day 2, 12 Superior 6th grade science classes, 4/5/13
- Purple Loosestrife Beetle Bonanza Day 2, Solon Springs 9th grade class, 4/8/13
- Attended City of Superior Water Fair, AIS activity with 90 Superior students, 3/15/13

#### Media

- Developed County AIS webpages, available to view at [www.douglascountywi.org](http://www.douglascountywi.org)
- Developed the Douglas County AIS email listserv: share information and serve as a contact for county stakeholder groups and concerned citizens, The AIS email listserv is another important component of outreach to County citizens, local stakeholders, and lake associations. I utilized the listserv regularly to send out workshop information, AIS information and updates and other environmentally related topics as they arose.
- Developed five press releases/stories
  - "Douglas County Inspectors Buckle Down on 'Invasive Species' Searches", FOX 21 news story, 6/4/11
  - "AIS program introduction", St. Louis River Alliance River Voice Newsletter, 6/2011
  - "New Mobile Machine Keeps Invasive Mussels at Bay" FOX 21 news story, 9/3/11
  - "Aquatic Invasive Species – A Threat Below the Ice", the Superior Telegram, and two television interviews conducted on how AIS can be spread by ice fishing, 2012

- “Live AIS aquarium display”; conducted a television interview and radio interview on the development of a mobile AIS aquarium display for local events, 2012

#### Boat Landing Signs

- By the end of the grant project, approximately 75% of boat landings received new, updated AIS “Prevent the Spread” signs from the WDNR.

#### Fourth of July Landing Blitz

- Coordinated Fourth of July Landing Blitz in 2011 and 2012. Boat landing inspectors were present county-wide at boat landings to educate the public on AIS. Towels received from the DNR were divvied up and distributed to cooperating lake associations.

#### AIS Monitoring

- 10 lakes were monitored for AIS during the grant project. In 2011, citizen volunteers provided their time, assistance, and boats to help complete monitoring. Monitoring results are attached.
- In summer of 2011 and 2012, I also assisted the DNR in monitoring early detection lakes.

#### AIS Control

- In 2012, I organized two “Weed Pulling Days” in coordination with multiple agencies and parties: The Douglas County Forestry Department, the Northwoods Cooperative Weed Management Area, Solon Springs School District and Friends of the St. Croix Headwaters. These days were set up not only to pull/cut Purple Loosestrife, Honeysuckle and Buckthorn from Lucuis Woods Park along Upper Lake St. Croix and river tributaries in Solon Springs, but were utilized as an AIS educational experience for 17 students. 6/28/12, 8/8/12
- Purple Loosestrife biological control. In 2012 approximately 5,000 beetles were raised and then released on Wisconsin Point.

#### Various other Duties as the AIS Coordinator, Meetings, and Conferences Attended

- A County “No Transport” ordinance was presented to the LWCD Board and was approved for development. The LWCD has approved the “No Transport” ordinance and will go to the County Board for approval in 2014.
- Verified numerous citizen reports of suspected AIS, looked at suspect plant samples that were brought in as suspected Purple Loosestrife.
- Wisconsin Lakes Convention, 4/11 – 4/14/11
- Regional AIS Meeting, 5/10/11
- Douglas County Association of Lakes and Streams Meeting, 5/18/11
- Northwest AIS Strategy Meeting, 6/8/11
- MN Sea Grant AIS Meeting, 6/16/11
- GLRI AIS Partnership Grant Meeting, 6/27/11
- Aquatic Plant Identification Workshop, Lake Tomahawk, WI, 6/29/11
- Douglas County LWCD Meeting, 7/19/11
- GIS Training Class, UMD, 8/5/11

- Northwood's Cooperative Weed Management Area Meetings, Monthly, assisted with developing a strategic plan and management plan for the group during 2011-2013.
- AIS Coordinator Meeting, 10/24 – 10/25/11
- Upper St. Croix Watershed Alliance Meeting, 11/12/11
- Douglas County LWCD Meeting, 11/15/11
- Midwest Invasive Plants Network Conference, 12/13 – 12/15/11
- Northwest Lakes Conference, 6/22/12
- Volunteer Appreciation Day for area lakes volunteers in Barnes area, 5/4/12
- In 2012, I expanded the role of the AIS Program Assistant to include them in more aspects of the AIS Program. I actively sought out an Education Major who would benefit from this experience through expanding their outreach experiences and giving them a chance to participate in scientific AIS monitoring and remediation efforts.
- In the fall of 2012 I was contacted by the WDNR to assess the Eerie Pier Dredge Facility along the St. Louis River in Duluth, MN for invasive species and found two: phragmites and narrow-leaf cattail. I provided information on treatment and application timing.
- The St. Louis River Estuary Science Summit, 3/8-3/9/12
- Wisconsin Association of Lakes Conference, 4/10-4/12/12
- Spring AIS Coordinator Meeting, 5/8/12
- Town of Barnes AIS Committee Meeting, 5/21/12
- Invasive Species Education Summit, 6/14/12
- Douglas County Association of Lakes and Streams, 10/16/12
- Fall AIS Coordinator Meeting, 10/12
- Northern AIS Coordinators Meeting, 12/11/12
- Assisted the city of superior in choosing which kiosks to purchase to hold AIS Posters for placement at Lake Superior landings.
- Aquatic Plant Management Workshops. Attended all four workshops to learn more about APM, 1/23/13, 2/6/13, 2/27/13, 3/20/13.
- The St. Louis River Estuary Science Summit, 2/26 - 2/27/13
- Douglas County LWCD Meeting to discuss removal of Sea Lamprey barrier on the Middle River, 3/19/13
- Water Educators Roundtable, 3/28/13
- Wisconsin Association of Lakes Conference, 4/8-4/11/13
- Spring AIS Coordinator's Meeting, 4/30/13



## AIS Monitoring



## Outreach and Displays Created



## Workshops (CBCW, CLMN, Purple Loosestrife Biocontrol)



## Purple Loosestrife Beetle Bonanza





## Purple Loosestrife Beetle Rearing and Release



## Lucius Woods Weed Pulling



Outreach Events (Drummond LEEP Day, City of Superior Water Fair, Lake Association Presentations)



Erie Pier Invasives Species Inspection, Boat Landing Signs





# Douglas County Aquatic Invasive Species Program

## Program Description

The Douglas County Aquatic Invasive Species (AIS) Program is a collaborative effort between the Douglas County Land and Water Conservation Department and the Lake Superior Research Institute. Program funding is provided by an AIS Education, Prevention, and Planning grant from the Wisconsin Department of Natural Resources through summer of 2015.



## Outreach and Education



A live AIS display at the Douglas County Fish and Game League Expo.

Outreach and education is the main component of the AIS Program and targets the general public, K-12 schools, and lake residents. There are numerous local events that take place in Superior and Douglas County such as Lake Superior Day, the Douglas County Fish and Game League Expo, the Brule Hatchery Family Fun Day and more. Program staff utilize a variety of techniques and formats to educate the public about invasive species. At any of these events one might see live aquatic invasive species in an aquarium, a colorful tri-fold display, or a fishing boat that models where AIS might become attached.

Workshops are another element of outreach and education in the AIS Program. Workshops offer lake residents information and training on monitoring for invasive species, raising beetles to control Purple Loosestrife, and how to perform boat landing inspections. Boat landing inspector workshops, which teach volunteers how to instruct boaters to check and clean equipment of invasive species, are well attended by lake residents and volunteers.



Residents of Lake Nebagamon learning how to monitor for AIS on their lake.

The Douglas County AIS Program also incorporates K-12 projects in its programming. The Purple Loosestrife Beetle Bonanza gives students a chance to help solve a real environmental problem by combating local Purple Loosestrife infestations. Students have the opportunity to raise and release beetles to control this invasive plant at a local lake. Eco-Education Day is a project that gives students a chance to paddle a canoe, measure water quality, identify aquatic plants and invasive species, and understand unique lake habitats. These program foster an environmental sense of responsibility and are an integral part of teaching kids how their decisions affect the environment.



A student learning how to observe and record his discoveries during "Eco-Education Day" at Middle Eau Claire Lake.

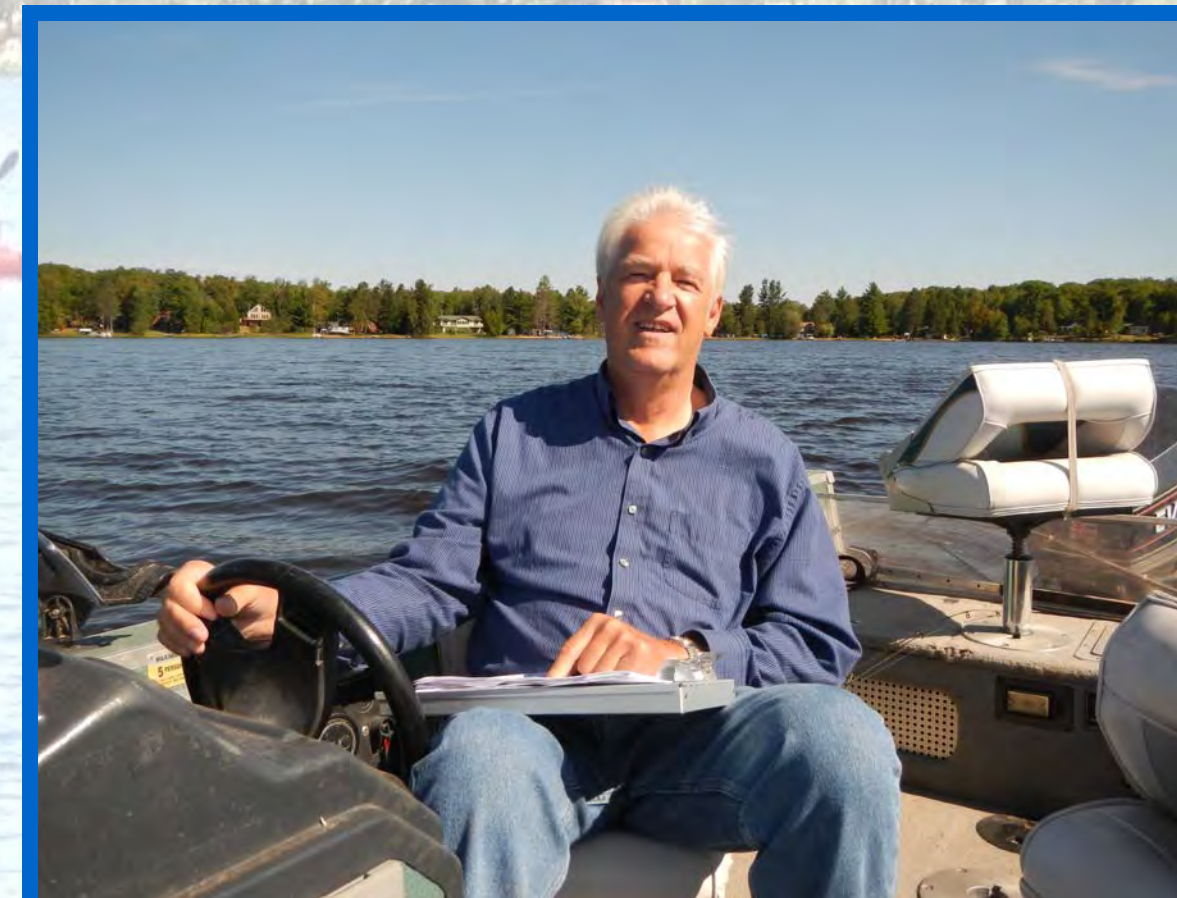
## UWS Student Involvement

The Douglas County AIS Program gives UWS students the opportunity to experience scientific monitoring and remediation of invasive species and assist in developing and undertaking various educational outreach projects. Students also function as boat landing inspectors to teach waterway users how they can prevent the spread of aquatic invasive species.



From left: Carrie Sanda, LSRI Outreach Specialist/Douglas County AIS Coordinator and Farrah Wirtz, UWS Student/Program Assistant

## Aquatic Invasive Species Monitoring



Citizens are an important partner and often participate in the County's AIS monitoring program.

Monitoring for invasive species is an important component of the AIS Program. County lakes are monitored in cooperation with the Wisconsin DNR and local residents. Monitoring consists of aquatic plant surveys, taking snail samples and conducting zooplankton tows for Spiny Waterfleas and Zebra Mussel veligers. Traps are placed for Rusty and Red Swamp Crayfish. Lake residents routinely offer their support and help perform monitoring duties.

Many of these residents also serve on the Douglas County AIS Steering Committee.

## AIS Remediation

Purple Loosestrife is a prevalent wetland invasive plant in Douglas County. Large infestations can be effectively controlled using a beetle called *Galerucella*. These beetles live, feed, and reproduce exclusively on Purple Loosestrife. The County AIS Program raises approximately 5,000-10,000 beetles for release in priority wetlands each year. County residents are also recruited and trained to raise and release beetles.



Releasing Purple Loosestrife Beetles on Wisconsin Point.



Solon Springs students assist in removing invasive species in Solon Springs' Lucius Woods Park.

Each summer the County AIS Program, County Forestry Department, Northwoods Cooperative Weed Management Area and Solon Springs students team up to take part in weed pulling days. Students learn how to identify invasive plants and assist in removing them from County Parks and other priority areas.



AIS Monitoring Report, 2011-2013

Lake Name	WBIC	Aquatic Plant Survey Complete (Y/N)	Plant Sample Submitted (Y/N)	Crayfish Traps (Y/N)	Crayfish Sample Submitted (Y/N)	Veliger Tows Completed(Y/N)	Sample Submitted (Y/N)	Water Flea Tows Complete (Y/N)	Sample Submitted (Y/N)	Snails Collected (Y/N)	Snail Sample Submitted (Y/N)	Sample Results: Invasive Species Found (Y/N)
Bond		Y	N	Y	N	Y	Y	Y	Y	Y	Y	N
Red		Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N
Upper Lake St. Croix		Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y, Rusty Crayfish, Chinese and Banded Mystery Snails
Minnesuing		Y	N	N	N/A	Y	Y	Y	Y	Y	Y	N
Whitefish		Y	N	Y	N	Y	Y	Y	Y	Y	Y	N
Bear		Y	N	Y	N	Y	Y	N	N/A	N	N/A	N
Crystal		Y	N	Y	N	Y	Y	Y	Y	N	N/A	Suspect Chinese Mystery Snail, need to submit sample
Interfalls		Y	N	Y	Y	Y	Y	N	N/A	N	N/A	N
Lyman		Y	N	N	N/A	Y	Y	N	N/A	N	N/A	N
Person		Y	N	Y	N	Y	Y	Y	Y	N	N	N
Radigan		Y	N	Y	N	Y	Y	Y	Y	N	N/A	N
Beauregard		Y	N	Y	N	Y	Y	Y	Y	N	N/A	N
Little Sand		Y	N	N	N/A	Y	Y	Y	Y	N	N/A	N
Leader		Y	N	Y	Y	Y	Y	Y	Y	N	N/A	N, Crayfish was native
Upper Ox		Y	N	Y	N	Y	Y	Y	Y	N	N/A	N
Amnicon		Y	N	Y	N	Y	Y	Y	Y	N	N/A	N





# The Douglas County Monitor

Douglas County, WI

Winter/Spring 2013

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## Interesting Facts:

- New Zealand Mud-snails can survive for 2 weeks out of water.
- Chinese Mystery Snails are known also as escargot, and can be eaten—if one were so inclined...

## The Douglas County AIS Program ~ An Overview

Hello! Welcome to the first edition of *The Douglas County Monitor*. The purpose of this newsletter is to provide information on Aquatic Invasive Species (AIS) and keep the citizens of Douglas County aware of the programs, events, and trainings offered by the county's AIS Program. In 2009, the Douglas County AIS Strategic Plan was finalized, and four main goals were identified:

- 1) AIS infestations already existing in the County are controlled or eradicated & prevented from spreading; new AIS infestations are prevented.
- 2) Communication between lake & river residents, watershed groups, visitors, & other waterway organizations is improved; education is provided for all users.
- 3) County & municipalities participate in the protection of water resources & understand how critical the resource is to the County, municipalities, northern Wisconsin & the region.
- 4) Sustainable funding for AIS research, monitoring, planning, restoration & education activities are adequately provided by private, local, County, state, federal, & tribal sources.

To view the Strategic Plan in its entirety, visit [www.douglascountywi.gov](http://www.douglascountywi.gov). The AIS Program works to achieve the goals laid out in the Strategic Plan through its trainings, projects, and events.

Each summer, approximately five County lakes are monitored for AIS using monitoring protocol developed by the WDNR.



Carrie Sanda, AIS Coordinator and Farrah Wirtz, Program Assistant, monitoring for AIS on Red Lake

Workshops are offered every Spring and Summer for Clean Boats, Clean Waters, Citizen Lake Monitoring, Purple Loosestrife Biocontrol, and other topics as the need arises. Program staff also attend local events such as Lake Superior Day, the Douglas County Fish and Game League Expo, Brule Family Fun Day, Fishing Tournaments, and local lake association events with an AIS educational display.

The AIS Program is constantly striving for improvement to better meet the needs of the area and welcomes your input. If your group would like help with grant writing, AIS monitoring, or other areas, contact the AIS Coordinator to set up a meeting.

The Douglas County AIS Program is a collaborative effort between the Land and Water Conservation Department and the UW-Superior Lake Superior Research Institute. Program funding is provided by an AIS Education, Prevention, and Planning grant from the Wisconsin Department of Natural Resources. Funding for the Program has been secured through summer of 2015.

Cliff LaVigne, WDNR, helps post a new AIS sign at Leader Lake



## Volunteer Training Workshops



CLMN Training on Lake Nebagamon

The Citizen Lake Monitoring Network (CLMN) Program teaches volunteers how to identify and monitor for Aquatic Invasive Species. The Douglas County AIS Program hosts training workshops every summer to teach volunteers how they can participate in the program on their lake.

### Citizen Lake Monitoring

Monitoring is open to people of all ages, abilities, and schedules. Training workshops are held on-site for a fun, hands-on experience and to help volunteers identify priority monitoring sites on their lake. If you would like to attend a training or schedule a CLMN training on your lake, contact the AIS Coordinator.

### Clean Boats, Clean Waters

Even though we're in the middle of the winter months, it's not too early to start thinking about this coming summer's Clean Boats, Clean Waters (CBCW) programs. The CBCW Program is the frontline of defense against the introduction of aquatic invasive species. CBCW inspectors look over equipment before it is launched into a lake and teach waterway users AIS prevention steps. Trainings will be offered in early May and June. Follow-up information will be sent out to lake associations through the Douglas County AIS listserv once dates have been finalized. If you would like to learn more about CBCW, visit [www4.uwsp.edu/cnr/uwexplakes/](http://www4.uwsp.edu/cnr/uwexplakes/).



A boat inspection demonstration at a CBCW training in Solon Springs

### Purple Loosestrife Biological Control

Purple Loosestrife is a perennial wetland invasive plant that is quite prevalent around Douglas County. One effective means to control large infestations is to raise and release a beetle called *Galerucella*. For years, many lake associations have coordinated their own biological control programs to help limit the spread of this noxious plant. In Spring of 2012, the County AIS Program, in Coordination with Brock Woods, WDNR Purple Loose-

strife Biological Control Coordinator, hosted a workshop to teach volunteers how to raise *Galerucella* beetles. The beetles feed and reproduce exclusively on Purple Loosestrife and can keep the plant from completely taking over a wetland. Volunteers are always needed to help raise beetles. All necessary equipment and instruction are provided. If you would like to raise beetles, contact the AIS Coordinator.



Releasing Purple Loosestrife beetles on WI Point



A beetle raising set-up

Douglas County  
AIS Coordinator  
Carrie Sanda  
(715) 394-8525  
[csanda@uwsuper.edu](mailto:csanda@uwsuper.edu)



## Purple Loosestrife Beetle Bonanza

The Purple Loosestrife Beetle Bonanza project aims to help students become environmentally minded citizens through personal involvement in solving a real-life environmental problem, and by providing an engaging outdoors experience. Over the course of the 2012-2013 school year, students will learn about insect life cycles, invasive species, wetland ecology, and more by growing Purple Loosestrife plants and rearing *Galerucella* beetles. Students will observe the beetles as they grow, feed, and reproduce on the plants. The project culminates at the end of the school year with a day-long

field trip to a local lake with Purple Loosestrife infestations. Students will release the beetles they raised and participate in a variety of educational activities. Students will get a chance to paddle a canoe, take water quality measurements, sample macroinvertebrates, identify aquatic plants, and learn about AIS. Local experts and volunteers will be on hand to help students understand how their decisions affect the quality of the environment around them. Field trips will take place on Amnicon Lake, Lake Nebagamon, and Upper Lake St. Croix.



Digging rootstock for the Beetle Bonanza project

## AIS Presentations to Associations



Presenting info on the AIS Program to the City/County Leadership class

One important aspect of the County AIS Program is talking to residents and teaching them about the negative impacts of Aquatic Invasive Species. To date, approximately six presentations to local lake associations and other interested groups have been given. If your group is interested in having an AIS

presentation at your next meeting, contact the AIS Coordinator. Presentations can be tailored to your group's interests, focusing in on a few invasive species, how to protect your lake/waterway from infestation or general invasive species information. If you would like to take your group on the water for a hands-on experience, contact the AIS Coordinator at least a month in advance of the meeting date.

## Weed Pulling Days

Last summer the County AIS Program, County Forestry Department, Northwoods Cooperative Weed Management Area and Solon Springs students teamed up to take part in two weed pulling days at Lucius Woods in Solon Springs. Students helped track down and pull invasive plants from the park. Not only did students learn how to identify Glossy

Buckthorn, Honeysuckle and Purple Loosestrife, they helped collect and redistribute *Galerucella* beetles around the northern inlet of Upper Lake St. Croix. Weed Pulling Days in Lucius Woods are being planned for 2013. If you would like to volunteer to help or know of a spot in need of a Weed Pulling Day, contact the AIS Coordinator.

A pile of pulled buckthorn, honeysuckle and Purple Loosestrife in Lucius Woods



## Boat Landing Signs

A new boat landing sign at the Bear Lake landing



In 2011, the Wisconsin DNR developed new boat landing signs to reflect the new NR40 AIS law. The signs emphasize the four AIS prevention steps:

- 1) INSPECT boats, trailers, and equipment
- 2) REMOVE all attached aquatic plants and animals
- 3) DRAIN all water from boats, vehicles, and equipment
- 4) NEVER MOVE plants or live fish away from a waterbody

The majority of public boat landings in Douglas County have had a new sign placed and the remainder will be installed this coming summer. If you know of a private boat landing that would be interested in posting an AIS sign, contact the AIS Coordinator.

## Riparian Landowner Education Project



Sue O'Halloran, Coastal Training Program Coordinator for the Lake Superior NERR welcoming workshop participants

In January of 2011, the city of Superior successfully applied to the Department of Natural Resources for an Aquatic Invasive Species Control Grant titled "Riparian Landowners Educational Project". The primary goal of the project was to contain and prevent the spread of Aquatic Invasive Species through educating riparian landowners.

The first phase of the project was to mail an AIS survey to every riparian landowner within the City of Superior. The survey results report can be viewed at [www.ci.superior.wi.us](http://www.ci.superior.wi.us). On August 15, 2012, 35 riparian landowners were treated to dinner, educational displays and presentations by John Haack from UW-extension, Paul Hlina from Leaning Pine Native Landscapes and Carrie Sanda, the Douglas County AIS Coordinator. By the end of the workshop, participants knew how important their streambank or shoreline is for wildlife habitat, water quality and AIS control. Participants also gained insight into the ecol-

ogy of four specific wetland invaders: Purple Loosestrife, Phragmites, Reed Canary Grass, and Flowering Rush. Information on removing and replacing invasives on their property was also provided. The Project was a successful collaboration between personnel from the city of Superior, UW-Superior Lake Superior Research Institute and the Lake Superior National Estuarine Research Reserve.



Paul Hlina presents information on shoreline restoration at the Riparian Landowner Workshop



## Eco-Day Education Opportunity for Kids



Eco-Day on Middle Eau Claire Lake

Eco-Day, developed in 2009 by the Barnes/Eau Claire Lakes Property Owner's Association, is a program designed to support local educators in promoting appreciation and educational values of Wisconsin lakes. The program's lesson plans align with Wisconsin state standards, making it easier for teachers to incorporate into their curriculum. The Eco-Day curriculum is a combination of in-class lessons and field trips to a local lake designed to take place once

in the Fall and once in the Spring. The program includes a canoeing component which is an experience on the water that many students have never had before. The Barnes/Eau Claire Lakes POA has generously posted the curriculum on their website so other groups can use it in their own community to teach students the importance of our waters. The entire Eco Education Program document can be viewed and downloaded at <http://www.barnes-wi.com/page.cfm/1250>. Portions of the Eco-Education Curriculum will be utilized in the upcoming Purple Loosestrife Beetle Bonanza Project field trip on page 3.

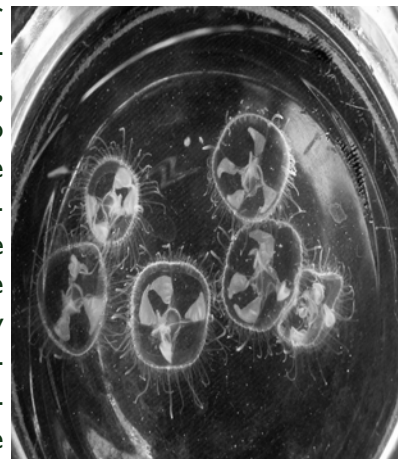
## AIS Steering Committee

Twice a year, once in the Fall and once in the Spring, local lake residents are invited to attend the Douglas County AIS Program Steering Committee meetings. The meetings are a chance for concerned residents to see what events the AIS Program has been involved with, what's coming up, and to give their feedback on the program and any concerns they have regarding AIS. If you would like to attend a Steering Committee Meeting, contact the AIS Coordinator.

## What to do if you find suspected AIS

Residents who live and recreate on a lake have a tremendous potential to discover initial invasions by non-native species. If you find a suspected Aquatic Invasive Species, it is important to have it verified. If you can identify what it is, confirm whether or not it has previously been reported by visiting the WDNR or Douglas County website. Take a digital photo and record information on where it was found. Collect 5 intact specimens (for plants collect roots, stem, leaves, and flower or seed head.) If the specimen is a plant or jellyfish, store in the refrigerator in water. Put animal specimens in the freezer. Fill out the Invasive Incident Form available online at

[www.douglascountywi.gov](http://www.douglascountywi.gov), under Report AIS Flowchart (this flowchart contains all the information, forms and instructions on what to do if you find an AIS as well.) The last step is to bring the photographs, specimens, and form to the AIS Coordinator. If you would like to learn more about how to identify and monitor for AIS on your waterway, the AIS Program offers trainings each summer. If you would like to host a training on your lake and have at least 5 people who will attend, contact the AIS Coordinator.



Freshwater Jellyfish



UNIVERSITY of WISCONSIN

*Superior*

Lake Superior Research Institute

Contact Information for the Aquatic Invasive  
Species Program Coordinator

Carrie Sanda  
(715) 394-8525  
csanda@uwsuper.edu



### Douglas County AIS Email Listserv

The Douglas County AIS email listserv is the primary means of communication between the AIS Coordinator and Douglas County citizens. If you would like to receive these periodic informational emails on AIS, upcoming trainings and events, and other environmental information, email or call the number above.

## Featured AIS - Eurasian Water Milfoil

Eurasian Water Milfoil may well be one of the most feared Aquatic Invasive Species (AIS). With its capacity to choke out a waterway, it can completely alter the recreation and ecological value of a lake. There are many ways we can work to keep this noxious plant out of our waters.

The first line of defense is a good Clean Boats, Clean Waters Program. Program inspectors teach boaters and waterway users how to check their boats and equipment before entering and before leaving a lake.

The second line of defense are lake monitors. Lake monitors can learn how to identify and where to look for AIS on their lake. The Douglas County AIS Program offers trainings every summer for citizens to learn how to perform AIS monitoring. Early detection is the key to keeping AIS from taking over a waterway, and to keep control costs at a minimum. Monitoring can be done as much as your schedule and interests allows, even as little as once a season.

If you would like to learn how to monitor for AIS, contact Carrie, the Douglas County AIS Coordinator, at the number provided at the top of the page.



**Size:** Up to 20' long

**Identifying Characteristics:** Stems are thin, often with a pink or reddish tint. Feathery leaves grow in a whorl of 3-5 with anywhere from 12-21 leaflet pairs. Goes limp when taken out of water.

**Most Commonly Found:** In waters less than 20' deep. Look near boat landings and high traffic areas, around inlets, and look for plant fragments along shorelines.

**Best Time of Year to Find:** The first half of summer.

# ICE ANGLERS!

## Stop Aquatic Hitchhikers

FOR MORE INFORMATION VISIT:  
[WWW.DNR.WI.GOV/INVASIVES/AQUATIC](http://WWW.DNR.WI.GOV/INVASIVES/AQUATIC)

To prevent the spread of aquatic invasive species and VHS, WISCONSIN LAW REQUIRES THAT YOU:

**INSPECT** your ice fishing equipment and

**REMOVE** any attached aquatic plants or animals (before and after use on ice).

**DRAIN** all water from equipment including buckets or containers with fish when leaving ice.

**DON'T MOVE** live fish away from a waterbody.

**BUY** minnows from a Wisconsin bait dealer. Use leftover minnows only under certain conditions. 🐟



UW  
**Extension**

DNR PUB WT-923 2009



Robert Korth, UW-Extension Lakes



**STOP AQUATIC  
HITCHHIKERS!**

### 🐟 **Bait Rules:**

You may take leftover minnows away from any state water and use them again on that same water.

You may use leftover minnows on other waters only if no lake or river water, or other fish were added to their container.

Two gallons of water is allowed for transporting minnows.

Smelt and other dead bait must be preserved in a way that does not require freezing or refrigeration.

Visit [www.dnr.wi.gov/fish/vhs/vhs\\_preservation.html](http://www.dnr.wi.gov/fish/vhs/vhs_preservation.html) for more information.

## **FOR IMMEDIATE RELEASE**

Date: Jan. 10, 2012

Contact:

Carrie Sanda  
Douglas County Aquatic Invasive Species Coordinator  
(715) 394-8525  
[csanda@uwsuper.edu](mailto:csanda@uwsuper.edu)

### Aquatic Invasive Species – A threat below the ice

SUPERIOR, Wis. -- Another season of ice fishing is here and the battle continues with aquatic invasive species, or AIS.

Many local anglers are aware of the basic steps they should take to clean their boat to prevent spreading AIS to another lake or river. However, some ice anglers may not realize AIS are a threat during the ice fishing season as well.

AIS specialist Deborah Seiler from the UW Extension says, "It's easy to discount the AIS prevention steps in winter when there's no boat to clean, but all the usual aquatic hitchhikers are still present."

Aquatic invasive species like zebra mussels, Eurasian water-milfoil, and Viral Hemorrhagic Septicemia, or VHS, may still be transported from one water body to another. To prevent the spread of AIS, Wisconsin law now requires that anglers:

- INSPECT ice fishing equipment and
- REMOVE any attached aquatic plants or animals before and after use on ice.
- DRAIN all water from equipment including containers with fish when leaving the ice.
- DON'T MOVE live fish away from a water body.
- BUY minnows from a Wisconsin bait dealer and use leftover minnows only under certain conditions.

Bait laws state that leftover minnows can be taken away from any state water and used again on that same water. Leftover minnows may also be used on other waters only if no lake or river water, or other fish were added to their container. Two gallons of water are allowed for transporting minnows.

Visit [www.dnr.wi.gov/fish/regulations/2011/hookline.html](http://www.dnr.wi.gov/fish/regulations/2011/hookline.html) for more information on fishing regulations and bait laws.

Ice anglers are an important part of the fight against AIS and they are taking action to protect the lakes and rivers they love. As one local ice fisherman put it, "if we don't step up and do our part, our pristine lakes won't be the same for our children and grandchildren."

*Carrie Sanda is the Douglas County Aquatic Invasive Species Coordinator and can be reached at [csanda@uwsuper.edu](mailto:csanda@uwsuper.edu) or (715) 394-8525.*

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Contact: Carrie Sanda  
Tel: 715-394-8525  
Email: csanda@uwsuper.edu

FOR IMMEDIATE RELEASE

Aquatic Invasive Species Watercraft Decontamination Demonstration  
September 3, 2011, 9:30-3:30  
Loons Foot Landing, Superior, WI 54880

Douglas County and the Department of Natural Resources are using multiple approaches to prevent the spread of aquatic invasive species (AIS). One option is the use of decontamination machines to clean boats as they leave contaminated waters.

This year the WDNR purchased a \$15,500 mobile decontamination machine with funding from the US Fish and Wildlife Service. The portable unit kills invasive organisms on personal watercraft without using chemicals. The entire decontamination process relies on a constant and consistent 140 degree hot water rinse.

The WDNR approach to controlling aquatic invasive species combines the use of equipment such as this decontamination unit as well as education. Bob Wakeman, AIS Coordinator for the state of Wisconsin, says "I think there is a role for the power washers to play in a comprehensive AIS program."

Join Tim Werner, local Water Guard, and the Douglas County Aquatic Invasive Species Coordinator Carrie Sanda on Saturday, September 3, from 9:30am-3:30pm at Loons Foot Landing in Superior, WI for a watercraft decontamination demonstration. Bring your boat and see how the hot water generated by this decontamination unit is used to kill zebra mussels, Viral Hemorrhagic Septicemia (VHS), and other aquatic invasive species.

Students who provide education as part of the County's Clean Boat/Clean Water program will also be in attendance to educate the public about the threat of AIS to our lakes and rivers. They will be sharing easy steps anyone can take to prevent the spread of AIS.

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## **FOR IMMEDIATE RELEASE**

Date: May 21, 2012

Contact:

Carrie Sanda

Douglas County Aquatic Invasive Species Coordinator

(715) 394-8525

[csanda@uwsuper.edu](mailto:csanda@uwsuper.edu)

### **Anglers good habits best defense against aquatic invasive species**

SUPERIOR, Wis. – With the long winter months well behind us, anglers are out doing what they love the most. As you drive along Lake Superior, the water is dotted with boats, everyone hoping to feel that familiar tug on their line. There are few experiences in life that are as exciting as reeling in that first big fish of the season. But, along with that experience comes a sinister threat to the very sport so many love.

Aquatic invasive species, or AIS, like zebra mussels, Eurasian water-milfoil, and spiny water fleas can be transported from one water body to another by unsuspecting anglers. These non-native species can lead to a dramatic change in the ecosystem of a waterway, which directly affects the health of the fishery.

When a Lake Superior boater travels to an inland lake there is an even greater chance of spreading AIS. “Lake Superior is host to numerous aquatic invasive species that are not presently found in nearby inland lakes,” says Carrie Sanda, Douglas County AIS Coordinator, “And it’s up to every single waterway user to help keep it that way.”

There are five basic steps everyone should take before launching and before leaving any waterway:

- INSPECT fishing gear, watercraft, equipment and
- REMOVE any attached aquatic plants or animals before launching and before leaving a boat landing.
- DRAIN all water from equipment including containers, live wells, bilge pump, motor, and transom.
- NEVER MOVE live fish away from a water body.
- BUY minnows from a Wisconsin bait dealer and use leftover minnows only under certain conditions. Visit <http://dnr.wi.gov/topic/fishing/hookline.html> for more information on bait laws.

If you are taking your boat from Lake Superior to an inland lake, there are two additional prevention steps that should be taken:

- WASH the boat at a car wash or with 160°F water from a high pressure washer and
- DRY the boat out in the sun for a week.

Public education is an extremely important aspect of containing the spread of AIS. “Anglers tend to be a very proactive group when it comes to aquatic invasive species,” says Sanda, “and once they understand and become aware of this issue, they are quick to do their part.”

For more information on aquatic invasive species, visit <http://dnr.wi.gov/topic/Invasives/>.

*Carrie Sanda is the Douglas County Aquatic Invasive Species Coordinator and can be reached at [csanda@uwsuper.edu](mailto:csanda@uwsuper.edu) or (715) 394-8525.*

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ATTENTION: ASSIGNMENT EDITORS

Date: June 22, 2012

Media contact: Carrie Sanda, Lake Superior Research Institute, 715-394-8525

**Students, experts to team up to remove invasive plants on Upper Lake St. Croix**

SOLON SPRINGS, WIS. – Local students join experts from the Douglas County Forestry Department, the Northwoods Cooperative Weed Management Area and the Lake Superior Research Institute at UW-Superior for Invasive Weed Pulling Day from 9 a.m. to 3 p.m. Thursday, June 28, at Lucius Woods Park in Solon Springs, Wis.





**Reporters, photographers and videographers are welcome at this event.** Lucius Woods County Park is located on Marion Street off Business U.S. 53 in Solon Springs.

The team, including a class of local school students and their teacher, will pull, cut and remove invasive plant species from Upper Lake St. Croix. They also will be collecting and re-distributing beetles to combat purple loosestrife in the lake's wild rice beds.



# Purple Loosestrife Beetle Bonanza



-  Helps students become responsible, environmental citizens.
-  Engages students in addressing a real life environmental problem.
-  An exciting & fun hands-on learning experience.
-  Learn about plants, insect life cycles, invasive species, wetlands & more!



The Purple Loosestrife Beetle Bonanza Project is an opportunity for students to help the County address Purple Loosestrife infestations. Students will help grow the plant and cultivate populations of beetles for release in area wetlands. The project will break down as follows over the 2012-2013 school year:

- September: Purple Loosestrife & AIS presentation/ activity (one class period)
- September Field Trip: Dig up rootstock from area wetland (~2-3hrs, dependent on funding)
- February: Plant rootstocks, classroom lesson/ activity (one to two class periods)
- April: Adult beetles placed on plants, classroom lesson/ activity (one to two class periods)
- Late May Field Trip: Bring beetles to infested area (~2-3hrs, dependent on funding)

Space is limited, so sign up now!

