

Management activities

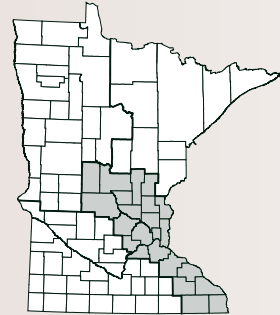
- Plant surveys and technical assistance were provided to numerous lake associations and lake improvement districts planning management activities. This included 18 lakes infested with curly-leaf pondweed and four lakes with Eurasian watermilfoil.
- Point intercept plant surveys, early season mapping, and fall turion surveys were conducted on curly-leaf pondweed pilot project grant lakes including Lower Mission Lake, Lower Cullen Lake (Crow Wing County), and Dixon Lake (Itasca County).
- Eurasian watermilfoil was treated in 17 harbors and water accesses on Mille Lacs Lake.

REGION 3 - CENTRAL New infestations

- Zebra mussels were discovered in Lake Minnetonka in July. Surveys confirmed established populations in multiple locations.
- Eurasian watermilfoil was discovered in eight new lakes in the central region.

Prevention activities

- In response to the Lake Minnetonka zebra mussel infestation, targeted enforcement efforts were carried out around the lake, new signs posted, and public meetings were held to inform citizens about impacts to the lake and what precautions are required to minimize impacts to users and prevent the spread.
- Held lake service provider trainings.
- 33,900 watercraft were inspected in the region in 2010. This includes the metro area lakes and Mississippi River.
- New invasive species awareness signs were posted at public accesses



Management activities

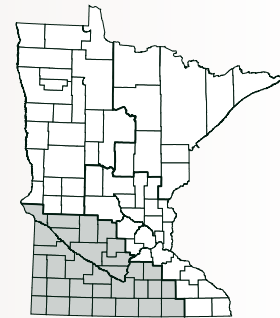
- 18 lakes received funding for management of curly-leaf pondweed and Eurasian watermilfoil. Technical assistances for treatments, pre- and post-treatment surveys and reports were carried out for these lakes.
- The U.S. Army Engineer Research and Development Center continued monitoring the efforts of herbicide treatments of Eurasian watermilfoil in Gray's and Phep's bays on Lake Minnetonka. Results of these efforts are helping the DNR and its partners evaluate the efficacy and also the potential risks of bay-wide treatments.

REGION 4 - SOUTH New infestations

- Eurasian watermilfoil was discovered in the following lakes: Calhoun (Kandiyohi County), Mazaska (Rice County), Circle (Rice County), Madison (Blue Earth County), and Minnie-Belle (Meeker County).

Prevention activities

- Enforcement was increased around infested waters; watercraft inspections increased from 4,300 in 2009 to 6,200 in 2010.
- Worked at local fairs and events including Kids Day Fishing and Cannon River Festival
- A total of \$29,000 was awarded to 14 groups to initiate new or continue customized public awareness projects and an additional \$72,000 was awarded for 6,000 hours of watercraft inspections to 37 groups at the local level.



Management activities

- Clear Lake in Meeker County completed its fifth year in the pilot program to control curly-leaf pondweed on a lake-wide basis. The program has been successful in reducing curly-leaf pondweed in biomass.
- Technical assistance, plant surveys, and information were provided to 17 lakes infested with either Eurasian watermilfoil and/or curly-leaf pondweed.
- Citizen Lake Monitoring training was provided to interested lake associations at various times of the season.
- 4 lakes received grants for control of Eurasian watermilfoil and/or curly-leaf pondweed.

REVENUE AND EXPENDITURES

Funding for the Invasive Species Program includes a \$5 surcharge on watercraft registered in Minnesota and a \$2 surcharge on non-resident fishing licenses (which makes up the Invasive Species Account), appropriations from the general fund account, Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources, and local contributions. These funding sources generated \$4,935,000 for all invasive species prevention and management activities for the 2010 fiscal year.

Aquatic invasive species spending (\$3,893,000) for fiscal year 2010 is shown in Figure 2. The Management/Control and Inspections/Enforcement categories account for 76% of aquatic invasive species spending. These two spending categories along with expenditures for Education/Public Awareness activities, reflect the importance the DNR places on efforts to prevent the spread of invasive species and to help manage the problems those species cause once they become established.

In addition, the Invasive Species Program received federal funds from the U.S. Fish and Wildlife Service and the U.S. Forest Service for a variety of research projects.

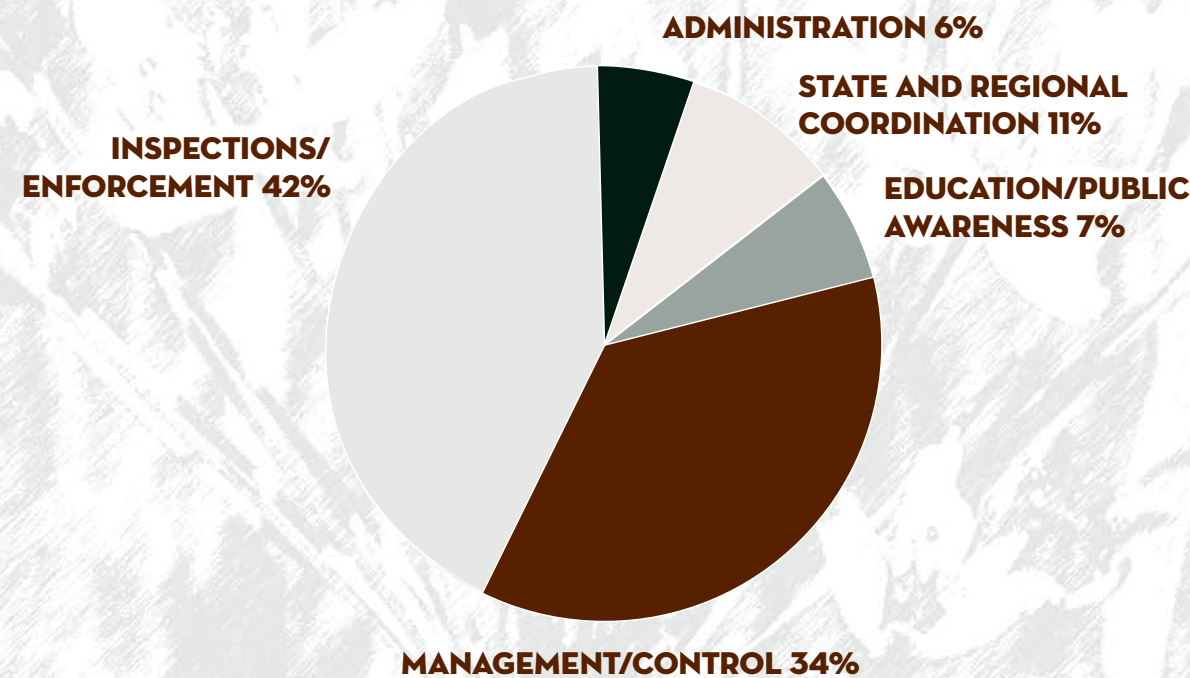


Figure 2. Aquatic Invasive Species Program spending (Invasive Species Account and General Fund only) in FY10 by major categories.

Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, age, sexual orientation, membership or activity in a local commission, or disability. Discrimination inquiries should be sent to MN-DNR, 500 Lafayette Road, St. Paul, MN 55155-4031; or the Equal Opportunity Office, Department of the Interior, Washington, DC 20240.

This document is available in alternative formats to individuals with disabilities by calling (651) 296-6157 (Metro Area) or 1-888-MINNDNR (MN Toll Free) or Telecommunication Device for the Deaf/TTY: (651) 296-5484 (Metro Area) or 1-800-657-3929 (Toll Free).

Cost to print this Annual Report Summary was \$787.00 for 1,000 copies.

Invasive Species of AQUATIC PLANTS & WILD ANIMALS in Minnesota

ANNUAL REPORT SUMMARY FOR 2010



Conservation officers worked to educate boaters about the new drain-plug law that took effect July 1.

THE PROBLEM

Invasive species have the potential to cause serious problems in Minnesota. Evidence from numerous locations in North America and from around the world demonstrates that these non-native species are a threat to the state's natural resources and local economies that depend on natural resources.

STATUS OF INVASIVE SPECIES IN MINNESOTA: 2010

AQUATIC PLANTS

Eurasian watermilfoil was discovered in 14 additional water bodies during 2010. The total number of milfoil infested water bodies is 246.

Purple loosestrife was found in 12 new sites in 2010, bringing the total number of known infestations to 2,406.

Curly-leaf pondweed is known to occur in 759 lakes in 70 Minnesota counties.

Flowering rush was not found in any new locations in 2010.

WILD ANIMALS

Zebra mussels were discovered in three new inland lakes including Minnetonka, Gull, and Victoria. They are currently found in 19 inland lakes, isolated areas of Lake Superior, the Mississippi River from Crow Wing County to the Iowa border, the St. Croix River from Stillwater downstream, Pelican Brook, and the Zumbro River downstream from Lake Zumbro.

No new **New Zealand mudsnail** infested waters were discovered in 2010.

Spiny waterfleas were discovered in Burntside Lake near Ely and continue to spread along Minnesota-Canada border waters.



Chinese and banded mystery snails are being reported in Minnesota waters—more than 90 occurrences of the Chinese mystery snail and 60 occurrences of the banded mystery snail have been reported.

Faucet snails were discovered in the Mississippi River below Lake Winnibigoshish and in the Crow Wing River south of First Crow Wing Lake. These are expansions of existing populations in the area (Figure 1).

Mute swans were found at three locations in 2010. A total of four birds were reported in the wild.

THE RESPONSE

To address the problems caused by invasive species, the 1991 Minnesota Legislature directed the Department of Natural Resources (DNR) to establish the Invasive Species Program and to implement actions to monitor and manage invasive species of aquatic plants and wild animals.

PROGRAM GOAL HIGHLIGHTS

1. PREVENT INTRODUCTIONS OF NEW INVASIVE SPECIES INTO MINNESOTA

Keeping new invasive species out of Minnesota is a high priority for the environment and the state's economy. New introductions are costly to manage and may become perpetual problems.

Regulations

The 2010 Minnesota Legislature passed a new law (Minnesota Statutes 2008, section 84D.10) requiring that drain plugs, bailers, valves, or other devices used to control drainage of water from ballast tanks, bilges, and live wells must be removed or opened while transporting watercraft on a public road. DNR also is required to report to the Legislature each odd-numbered year on additional measures to protect state water resources from human transport of invasive species. The law went into effect July 1.

Education

Education efforts explain the risks posed by invasive species and the steps that people and businesses can take to prevent new introductions. Training sessions, presentations, and informational materials were offered to the public as well as to bait dealers, dock installers and salespeople, fishing guides, and marina operators.

2. PREVENT THE SPREAD OF INVASIVE SPECIES WITHIN MINNESOTA

Efforts to prevent the spread of invasive species are focused on people and their habits. After an invasive species becomes established in our lakes and rivers, a primary means for its spread is the unintentional transport on boats, trailers, and other recreational equipment. Prevention grants were provided to build partnerships and encourage local projects.

Stakeholder input

The DNR and Minnesota Waters held open houses in Duluth, Minnetonka, Walker, Fergus Falls, and Willmar as a way to inform citizens of prevention efforts, gain input and share new ideas, and develop partnerships focused on local and state action. More than 200 citizen, local government, and business representatives participated. Stakeholders expressed concern about zebra mussels, Eurasian watermilfoil, and Asian carp and indicated that state agencies need to take bold action or aquatic invasive species (AIS) will continue to spread. Many stated that not enough resources are available to meet the current needs. A recommended suite of actions was developed for the Legislature, DNR, local government, and organizations to consider.

Watercraft inspections

Ninety watercraft inspectors worked through the summer to check boats

and provide information to the public. Inspections began in late April and continued through mid-October, with 50,000 hours and 66,000 inspections completed. In addition, inspections were conducted at 40 fishing tournaments.

The Watercraft Inspection Program also worked with 42 associations and citizen groups to increase inspection hours in their areas. These groups funded additional hours of inspection at their accesses and often matched them with DNR grants. The DNR provided training, equipment, and supervision.

Enforcement

Conservation officers spent more than 12,800 hours enforcing invasive species laws and rules, a 2.5 fold increase over 2009. Statewide, there were 158 civil citations, one criminal citation, and 350 written warnings issued to individuals for violation of invasive species laws. Conservation officers statewide carried out a "Pick It or Ticket!" campaign on the Fourth of July weekend targeting recreational boaters and getting the word out on the new drain plug law.

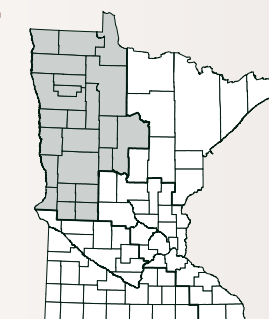
3. REDUCE THE IMPACTS CAUSED BY INVASIVE SPECIES Grant program for control of aquatic invasive plants

The DNR continued its grant program to support pilot projects for lake-wide control of curly-leaf pondweed or Eurasian watermilfoil. Grants totaling \$346,000 were given to 24 lakes. In addition, \$125,000 was given to 25 lakes to control nuisance populations of Eurasian watermilfoil and flowering rush. Grants also were offered for management of new, small populations of Eurasian watermilfoil and flowering rush. One Early Detection and Rapid Response grant for \$2,300 was awarded for control of Eurasian watermilfoil in Chub Lake (Carlton County).

REGIONAL UPDATES

REGION 1 - NORTHWEST New infestations

- Zebra mussels were discovered near Alexandria in Lake Victoria.
- Faucet snails were discovered in the Mississippi River downstream of Lake Winnibigoshish, Little Winnibigoshish Lake, and the Crow Wing River downstream of First Crow Wing Lake



Prevention activities

- Enforcement was increased around the infested lakes; watercraft inspections doubled from 7,954 in 2009 to 15,600 in 2010.
- Training was provided to private dock removal companies and other lake professionals on proper cleaning and movement of equipment.
- Grants totaling more than \$25,000 were provided to area associations for local prevention and awareness activities.
- A prevention, awareness, and education plan was initiated with the Leech Lake Band of Ojibwe and its Department of Resource Management to better deal with aquatic invasive species issues on and around the reservation lands and waters.

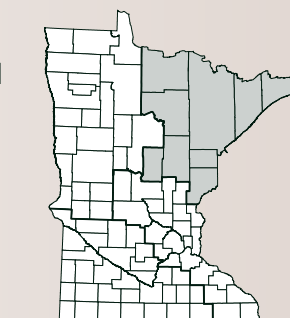
Management activities

- On Leech Lake, Eurasian watermilfoil was chemically treated in six harbors and hand pulled in six harbors to reduce the risk of spread to new lakes.
- Technical assistance, surveys, and information were provided to multiple lake groups with curly-leaf pondweed and/or Eurasian watermilfoil infested lakes. Upper Cormorant (Becker County), Blueberry (Wadena County), and Margaret lakes (Cass County) were included in the pilot program to evaluate lake-wide treatment of curly-leaf pondweed or Eurasian watermilfoil. Washburn, Townline, and Union lakes were all chemically treated for Eurasian watermilfoil.
- The DNR continued to work closely with the Pelican River Watershed District, the city of Detroit Lakes, area lake associations, and riparian owners to find ways to minimize the impacts of flowering rush. A cooperative research plan was developed with university researchers, local officials and stakerholders, and the DNR. Small-scale efforts such

as hand removal, harvesting, and chemical applications took place at the city beach and other properties on Detroit and Curfman lakes.

REGION 2 - NORTHEAST New infestations

- Zebra mussels were found on Gull Lake near Brainerd (Crow Wing County).
- Eurasian watermilfoil was confirmed on Tame Fish Lake (Crow Wing County).
- Japanese knotweed was confirmed in Cohasset (Itasca County).
- Spiny waterflea infestation was confirmed in Burntside Lake (St. Louis County).
- Viral hemorrhagic septicemia (VHS) confirmed in Minnesota waters of Lake Superior.



Prevention activities

- More than 1,200 hours of watercraft inspection were completed at Mille Lacs Lake.
- Training and testing for bait dealers who harvest bait in zebra mussel-, spiny waterflea-, and faucet snail-infested waters was held in Brainerd.
- AIS information was presented to numerous lake associations and community groups in the Northeast to educate citizens on AIS impacts, prevention, and management measures, and actions local organizations can take to prevent the spread of invasive species.
- Stop Aquatic Hitchhikers! signs were provided through the DNR Grant Program to 14 lake associations in five counties.
- Updated signs were posted at public water accesses from St. Louis Bay to Silver Bay indicating the presence of VHS in Lake Superior waters.



DNR and Minnesota Waters staff met with stakeholder groups to discuss invasive species prevention efforts.

For a copy of the complete report, call (651) 259-5100 or visit http://www.mndnr.gov/pubs_invasives.html.

Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4040

(651) 296-6157 (Metro Area)
1-888-MINNDNR (646-6367) (MN Toll Free)

www.mndnr.gov

Cover photo: MNDNR



Figure 1. Faucet snail infested rivers and lakes in Minnesota as of November 2010.