

# 2009-2010 Wisconsin Aquatic Invasive Species Progress Report

## Prevent... Contain... Control...



### By the numbers...

#### Our Waters

- 75% of our lakes with public access are free of Eurasian water-milfoil and zebra mussels
- Just 4% of lakes predicted to be suitable for zebra mussels are currently infested
- 133 inland waters have zebra mussels
- 538 waters have Eurasian water-milfoil statewide and only 116 in the northern region
- 0 new waters with VHS virus in 2009 - disease successfully contained in Lake Winnebago and Great Lakes

#### Our Partners

- 63,327 watercraft inspections in 2009, mostly by Clean Boats, Clean Waters volunteers
- 9 Water Guard conservation wardens created an enforcement presence at boat landings in 2009
- 49 young adults were hired as Water Force - Clean Boats, Clean Waters inspectors - via Workforce Development
- 35 counties actively partnering with the state to prevent and control the spread of aquatic invasive species
- 91% of boaters aware of invasive species laws and 88% had no aquatic plants present on their boats or trailers.

#### Our Investments

- \$4.1 million in aquatic invasive species control grants available annually to local communities for aquatic invasive species prevention and control
- \$10.5 million in awarded grants since 2003 to local communities for aquatic invasive species prevention and control

#### Our Goals

- **Prevent** most troublesome species from getting established
- **Contain** new threats from the Great Lakes and Mississippi River
- Discover better **control** strategies for Eurasian water-milfoil and the worst aquatic invasive species



Greetings:

Aquatic invasive species threaten Wisconsin's lakes and rivers. They disrupt the natural balance of species in our waters and can take the fun out of fishing, boating and swimming. Getting out on the water is just part of Wisconsin life and lakes are the economic engines for both our rural counties and urban waterfronts. I am proud to report that thanks to the hard work of many committed and creative partners, Wisconsin made great progress in the fight against these unwanted invaders in 2009 and 2010.

Our plan for protecting the waters of Wisconsin is simple, but it is implemented in dozens of ways, in hundreds of communities, by thousands of dedicated volunteers and staff.

You will read in the following pages about a few of the highlights from the past two years. Learn more about the work Wisconsin is doing by visiting our website to see our progress! [<http://dnr.wi.gov/invasives/aquatic/>].

***Prevent* invasive species from reaching Wisconsin.**

Two huge policy successes help secure Wisconsin's borders. The passage of the Department of Natural Resources Invasive Species Classification Rule (NR 40) makes it illegal to possess or sell the most dangerous potential invaders—species that are not yet here in Wisconsin, and ones we want to be sure to keep out. At the same time, the new statewide permit regulating ballast water discharge of ocean-going ships will ensure that new invaders do not reach the state via our Great Lakes coastline.

***Contain* the spread of species within the state.**

Another policy victory—a new illegal to transport law to prevent the transport of species via boats, trailers and other equipment—was celebrated by partners around the state. This is complemented by the outstanding success of the Department of Natural Resources Water Guard conservation wardens who bring this law to life at the community level through education and enforcement. We work hard to nurture existing partnerships throughout the state, and form some notable new ones. The aquatic invasive species partners teamed up with the Department of Workforce Development to provide watercraft inspection jobs for young people using federal stimulus funds and grow future stewards.

***Control* the damage caused by invasive species once they are established.**

During the past two years the state has made \$2.6 million available to local communities to combat established invasive species, especially Eurasian water-milfoil. We have also had some practice—and success—with mounting coordinated rapid-responses to contain and eradicate isolated populations of new and troublesome invaders. The partnership doesn't take a wait and see attitude when it comes to protecting our resources.

***Making* a difference.**

We had practice with mounting coordinated rapid responses to new populations of regulated species. In 2009, both yellow floating heart and red swamp crayfish were found and control was started right away. While we celebrate the victories of the past two years, we recognize that aquatic invasive species are a long-term challenge to Wisconsin's waters. We look forward to meeting that challenge strategically, efficiently, and creatively in the years to come.

Sincerely,



Bob Wakeman



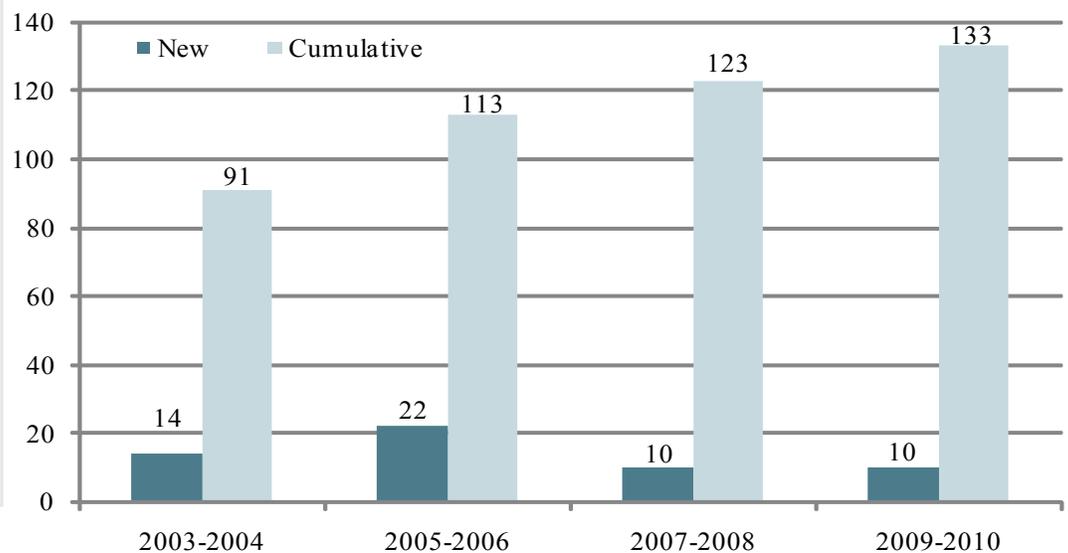
# Our Waters

Wisconsin is working hard to slow the spread of aquatic invasive species into our lakes and rivers. Once these species become established in a water body it is nearly impossible to eradicate them, so preventing their spread is the best strategy. Department of Natural Resources (DNR) staff and citizens throughout Wisconsin help this effort by monitoring lakes and rivers for the most problematic aquatic invasive species. We use this data to make management decisions, and to educate boaters and anglers. We also use it to evaluate our work, because, ultimately, our success will be measured on the landscape.

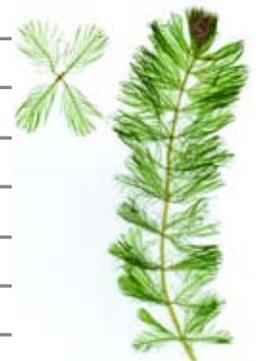
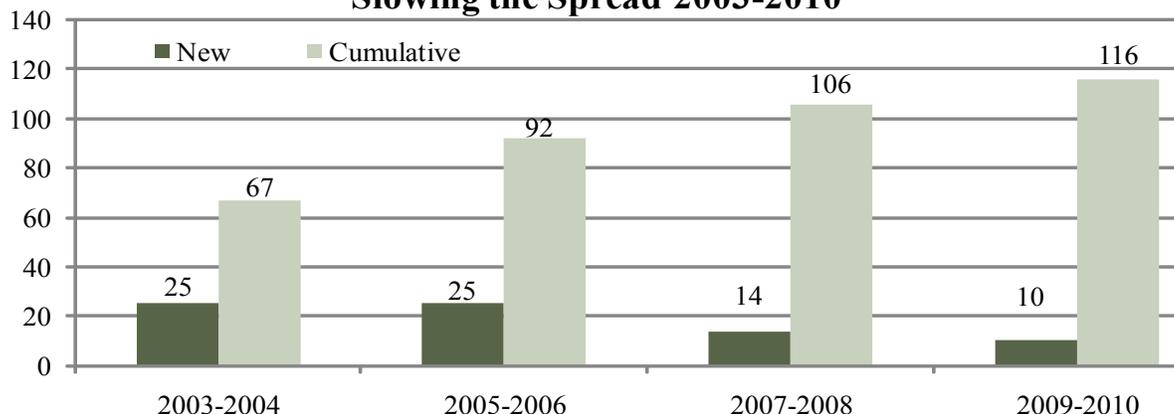
Our goal is to keep established invaders like zebra mussels and Eurasian water-milfoil from spreading, and to keep new invaders like quagga mussels and Asian carp from crossing our borders. There is reason for optimism. The majority of our waters are still free from the most problematic species, and the number of new populations detected each year has dropped. The “Smart Prevention” model developed by the Vander Zaden lab in the Limnology Department, University of Wisconsin predicts that about 17% of Wisconsin lakes are vulnerable to invasion but only 4% of these lakes currently have zebra mussels. The “superspreader” lakes that are infested and are most likely to spread invasive species including Green Lake, Lake Winebago and Shawno Lake have been prioritized by this model and now have inspections in place.

Zebra mussels first arrived in the Wisconsin waters from Lake Superior and along the St. Louis River in 1989. They originally arrived as stowaways aboard foreign freighters entering the Great Lakes. They have been spread to inland lakes when water containing veligers (juvenile mussels) or the objects that adult mussels are attached to are moved by people to new lakes and rivers.

## Statewide Zebra Mussel Infestations 2003-2010



## Eurasian Water-milfoil in Northern Lakes: Slowing the Spread 2003-2010



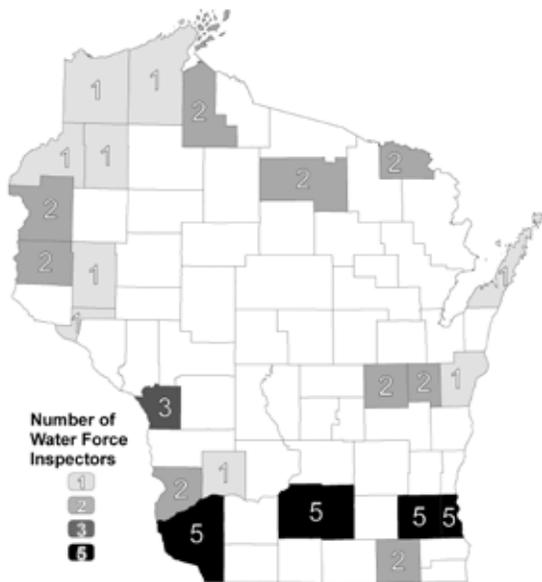
To find maps and information about the distribution of aquatic invasive species throughout the state, visit: <http://www.dnr.wi.gov/lakes/invasives/>

# Our Partners

Wisconsin's fight against aquatic invasive species is truly a team effort. State agencies, universities, county governments, Native American tribes, Lake Associations, non-profit organizations and citizens all play a vital role in preventing the spread of aquatic invaders. The many dedicated volunteers who willingly spend their weekends and holidays educating boaters or conducting plant surveys deserve special recognition. They form the backbone of Wisconsin's campaign to stop the spread of aquatic invasive species and are a testament to the passion and dedication that our lakes inspire.



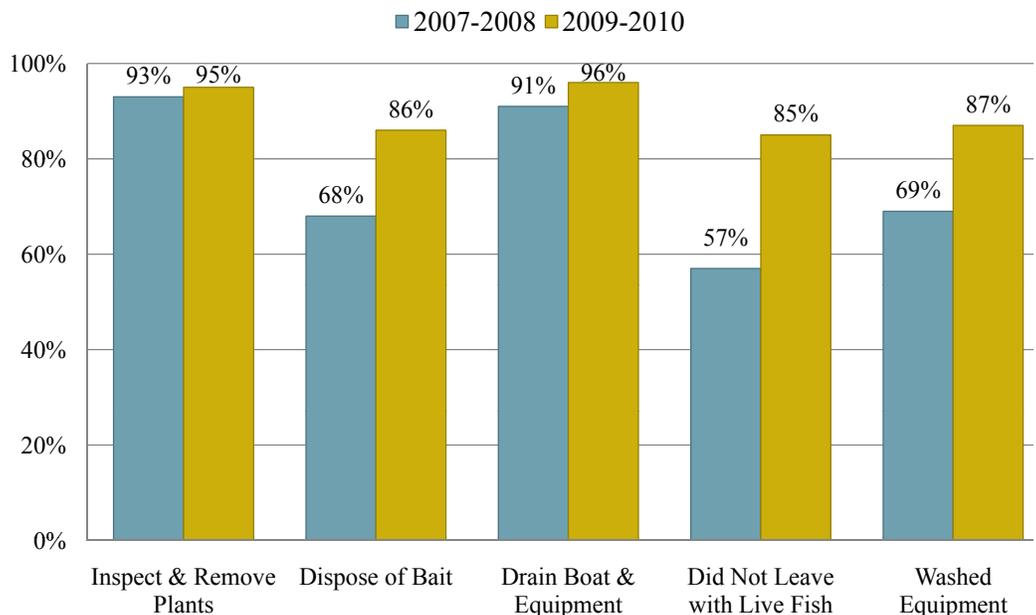
Because of the depth of these networks, Wisconsin was able to answer the call in April 2009 when Governor Jim Doyle announced that Wisconsin received \$38 million in ARRA funds to help dislocated workers, youth, and people with disabilities find jobs. The Department of Workforce Development's (DWD) Summer Youth Employment Program brought on 49 Water Force Inspectors across the state to work with county staff. Their main goal – to share information with lake users about aquatic invasive species.



*“This summer we worked with three Department of Workforce Development youth from Chippewa, Dunn, and Eau Claire counties. They started the summer with little face to face public interaction experience, but by the end, they were very comfortable talking to boaters. Their improvements were really rewarding! Beaver Creek Reserve has been able to work with so many great people from the lakes as a result of being involved with aquatic invasive species (AIS) education.”*  
 Anna Brady Mares, AIS Coordinator Beaver Creek Reserve

This work would not be possible without the support of the Wisconsin Association of Lakes who works to engage their members and the University of Wisconsin Extension and their education resources. We are pleased to report that thanks to the combined efforts of partners all across the state, Wisconsin citizens are getting the message about aquatic invasive species, and boaters and anglers are increasingly doing the right thing to make sure that they do not give these species a ride.

## Boater Prevention Steps Taken



Featured partner:



**Sea Grant: Aquatic Invasive Species**

The Great Lakes have been influenced by ecological changes brought about by aquatic invasive species, such as sea lampreys, alewives, zebra mussels, round gobies, ruffe and white perch. Wisconsin Sea Grant is a leader in research and outreach related to these aquatic nuisance species. Current efforts focus on educating the public about zebra mussels and other invasive species, developing ways to control their spread, reducing their adverse effects, and combining conceptual and analytical tools required to evaluate fishery restoration efforts.

Featured partner:



**Great Lakes Indians Fish & Wildlife Commission**

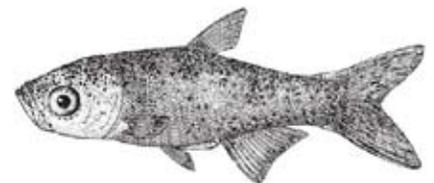
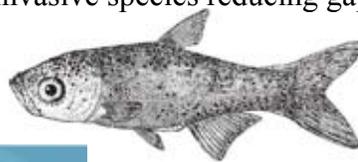
The Great Lakes Indian Fish & Wildlife Commission (GLIFWC) is an agency committed to the implementation of off-reservation treaty rights on behalf of its tribes.

The Commission’s mission is to help ensure significant, off-reservation harvests while protecting the resources for generations to come. Invasive species threaten the sustainability of the resources that are the foundation of culture and GLIFWC educates members on invasive species reducing gaps in managing this threat.

Featured partner:



**Project RED: Riverine Early Detectors** Wisconsin’s rivers are vulnerable to invasion by a number of invasive species from Eurasian milfoil to Japanese knotweed. The key to successfully protecting rivers is detecting invasives early when it is still possible to isolate or eradicate the infestation. Project RED teaches volunteers to search for invasive species and encourages a sense of community and discovery about the rivers they enjoy.



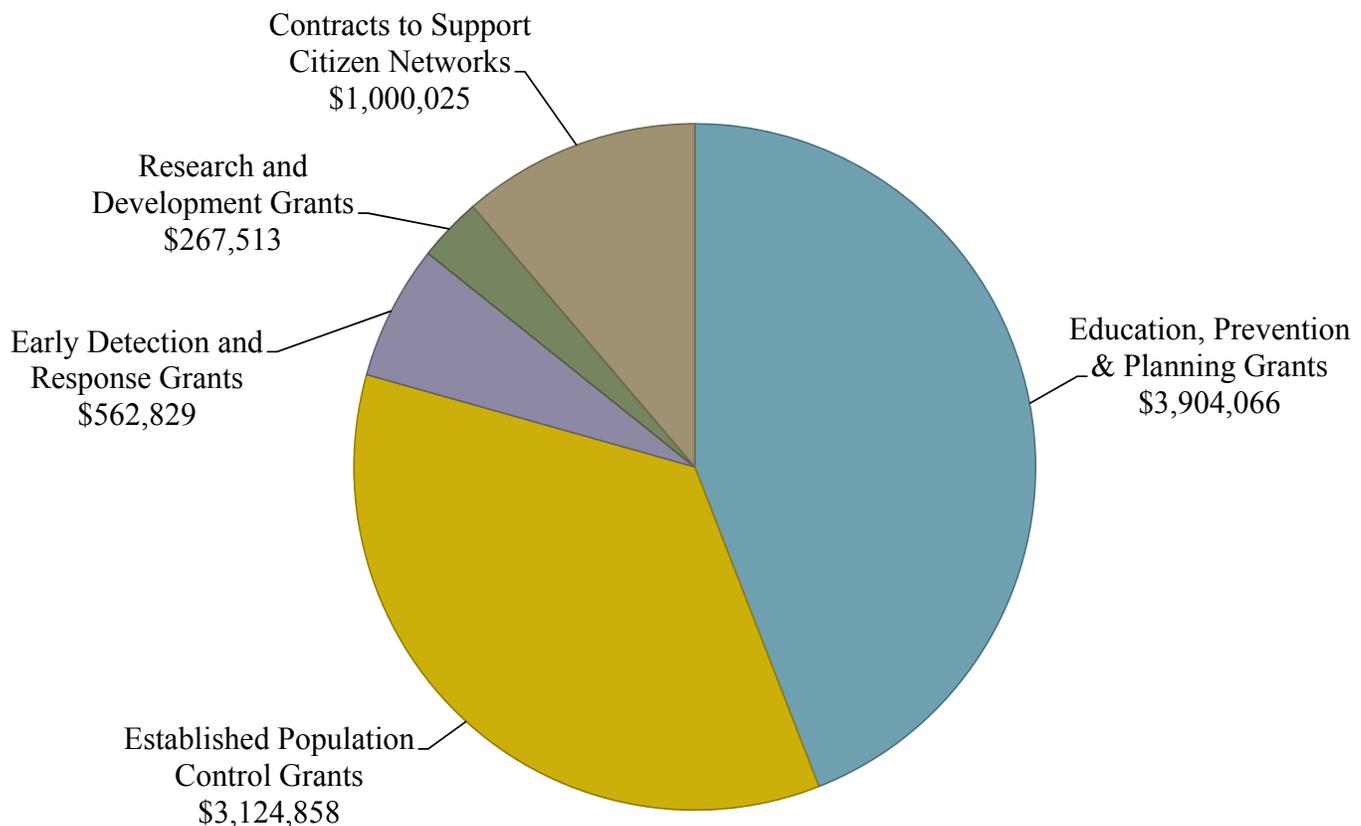
*Fast facts...*

County Partners	35
Citizen Lake Monitoring Network Volunteer Monitors	3,392
Project Riverine Early Detection Volunteer Monitors	126
Hours Volunteered in 2009	39,050
Contacts Made in 2009	134,333
Boats Inspected in 2009	63,327
Purple Loosestrife Cooperators	79 distinct groups
Total Biocontrol Beetles Raised	3.5 million
Purple Loosestrife Biocontrol Beetle Releases	190 sites

## Our Investments

Over the past several years Wisconsin has increased its financial commitment to fight aquatic invasive species. The majority of those funds are distributed through aquatic invasive species grants administered by the Department of Natural Resources. While the amount of state money invested in these grants is impressive—over \$10 million since the first grants were awarded in 2003—that is only the beginning of the story. Grant recipients are required to provide matching funds (50% through 2007, 25% 2008 and beyond), so the total amount invested in protecting lakes and rivers from invasive species is actually much higher. Many recipients dramatically exceed the minimum required match, yielding an even greater return on the state investment. The Department works closely with grant applicants and partners to ensure that these dollars are being invested strategically in projects that further the goals of preventing the introduction, limiting the spread, and minimizing the damage from aquatic invasive species throughout Wisconsin.

### Combined Fiscal Years 2009 & 2010



Aquatic Invasive Species Control Grants provide vital support to local communities throughout the state. Our goal is always to distribute funds as strategically and efficiently as possible. Grants are awarded in three categories: (1) education, prevention & planning; (2) controlling established infestations; and (3) rapid response. Starting in 2010, a research and development category now allows investments in science to better guide community-based prevention and control projects. In addition to grants, the DNR receives an annual budget of approximately \$500,000 for aquatic invasive species initiatives, representing a mix of state and federal funds (~\$20,000). These dollars support citizen networks via contracts with UW-Extension, UW-Madison, UW-Oshkosh, and UW-Sea Grant. These networks conduct purple loosestrife biocontrol, watercraft inspections, monitoring and other community based priorities.

More information on aquatic invasive species grant and program funding can be found:  
<http://dnr.wi.gov/lakes/grants/ais>

# Our Goals

We look toward the next two years with great optimism. With a strong regulatory framework, a flagship grants program, and an experienced network of enthusiastic partners, Wisconsin is already a nationally-recognized leader in the campaign to prevent the spread of aquatic invasive species. Importantly, we will build on what is working, learn from our investments in research, and listen to our partners as we develop increasingly effective and efficient ways to protect Wisconsin's lakes, rivers and wetlands.

Our goals remain constant—**prevent** aquatic invasive species from reaching Wisconsin, **contain** the spread of invasive species within the state, and **control** the damage caused by those that become established. In the next biennium we will:

***Respond to emerging threats***—In 2010 a number of developments including the advancement of Asian carp toward Lake Michigan bring increasing attention on invasive species in the Great Lakes. Wisconsin is at the table for these Great Lakes conversations, and has competed successfully for additional funding to work in the Great Lakes basin. During the next two years we expect to invest significant time and energy on protecting the Great Lakes and the Mississippi River ensuring that these heavily-used waters do not spread new species to inland Wisconsin waters. We will grow our efforts to turn off pathways for new species introduction from water gardens, aquaria, and other industries.

***Sharpen our lookout***— Early detection often means the difference between eradication and ongoing maintenance to reduce the damage aquatic invasive species cause once they are established. Being able to quickly determine that a species has shown up in a new area can also help focus containment efforts and reduce the risk to nearby waters. Our species monitoring efforts rely heavily on volunteer monitors to collect data, which means that monitoring effort and locations targeted have varied greatly over time. While we are proud of our citizen initiatives, we also recognize the need for a statistically sound monitoring scheme that will allow us to draw confident conclusions about trends in species spread over time. A team of experts is creating that monitoring plan now.

***Step up enforcement***—We have worked for many years to create the regulatory framework that now exists to prevent the introduction and spread of aquatic invaders. With a strong set of laws and rules, and polling data showing high levels of awareness and compliance among boaters, we now have the task of ensuring that these laws are supported by comprehensive enforcement. Over the next two years Department of Natural Resources conservation wardens will work to educate to boaters and anglers on the steps required by law to prevent the spread of aquatic invasive species and start issuing citations. They will partner with county and local law enforcement officials to ensure that water users across the state are receiving consistent messages.

***Add tools to our toolbox***—Wisconsin's invasive species partners will broaden the array of available tools for control of pioneer and established populations of invasive species. We will make AIS Control Grant funds available up-front to local sponsors to respond to new infestations quickly. Together we will track the effectiveness of control strategies on large and small scales for pioneer and established populations. Discoveries will be shared widely so others can learn what leads to nuisance conditions and what works to control them in our lakes.

***Nurture partnerships***—We are extremely proud of the dynamic and dedicated partnership of citizens and staff across the state who tirelessly give their energy and time—including weekends and holidays—to protect Wisconsin's beloved lakes and rivers. Over the next two years we will continue to strengthen and sustain this network, providing partners with the tools to work efficiently, developing tactics to prevent volunteer burnout, and recruiting new partners in source waters such as the Mississippi River and the Great Lakes basins where our aquatic invasive species network has historically been less complete.



**Sea Grant**  
University of Wisconsin

**UW Extension**  
University of Wisconsin-Extension