

# Columbia River "Basin Watch" Newsletter

*A 100<sup>th</sup> Meridian Partnership Program between resource managers, Marinas and resorts and other water users to prevent the introduction Of zebra mussels into the Columbia River Basin.*



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## Quagga Mussels May Have Been Accidentally Introduced into the Columbia Basin's Wild Horse Reservoir in Northern Nevada

The discovery of quagga mussels (*Dreissena bugensis*), a close relative of the zebra mussel (*D. polymorpha*), in Lake Mead and the lower Colorado River this January poses a threat to other water bodies in the West. Of particular concern is a May 2006 plant of 16,000 rainbow trout from the Lake Mead Hatchery which has been found to be infested with quagga mussels, stocked into Wild Horse Reservoir in northern Nevada, which is in the Owyhee River drainage. Therefore, if this stocking included larval or adult quagga mussels, it may have resulted in the introduction of quagga mussels into the Columbia Basin. Wild Horse Reservoir may be a suitable habitat for quagga mussels, however, it is as of yet unknown if mussels and/ or larvae were introduced with the stocked fish.

If quagga mussels do become established Wild Horse Reservoir further spread throughout the Columbia Basin is possible. Quagga larvae live in the water column and are easily transported downstream before settling on the lake bottom and any hard surfaces such as pump intakes, dams, docks, etc. to live as adults. The juvenile mussels are small and difficult to see and attach to hard surfaces such as fiberglass, plastic, metal, wood and concrete. Wild Horse Reservoir is popular with fishermen and boaters, and trailered boats could transfer larvae and adult mussels from the reservoir to other water bodies in the Columbia Basin

The Columbia River Basin ANS Team of the 100<sup>th</sup> Meridian Initiative is working to counter this potential threat. They are developing modifications to protocols for equipment decontamination, promoting training for hatchery personnel on preventing spread of invasive species and fish diseases, monitoring high risk waterways, and stepping-up outreach and education efforts. You can help. Thoroughly clean your boat hull, live wells, bilges and boat trailer with hot, pressurized water and soap and/ or 6% solution of household bleach. Flush engine coolant systems with hot water (above 140 degrees) to kill larvae in the cooling water. Dispose of unused bait in the trash. **Remember; spread the message, not the mussel!**

- Jim Gores, Invasive Species and Wildlife Integrity Coordinator  
Oregon Department of Fish and Wildlife

## Zebra Mussel's Evil Twin Jumps the Rocky Mountains

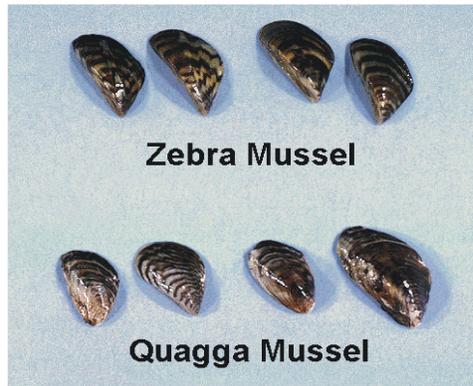
Until January 2007 zebra mussels and its close relative the quagga mussel have been successfully contained east of the 100<sup>th</sup> Meridian in North America by some measure of good fortune and the collective efforts of Federal, State and tribal resources managers working cooperatively under a directive from the US Congress called the 100<sup>th</sup> Meridian Initiative. That all changed this past January when an observant marina operator reported mussels on a boat being hauled out of Lake Mead, a Colorado River impoundment located near Las Vegas Nevada.

These tiny mollusks, which were later confirmed as quagga mussels, represented the 1<sup>st</sup> recorded infestation of this species west of the 100<sup>th</sup> Meridian. In subsequent days and weeks, divers found good numbers of quagga mussels surviving and reproducing in the lower Lake Mead Basin, Lake Mohave, Lake Havasu, the Lake Mead and Willow Beach hatcheries and in irrigation and water supply diversions from this reach of the Colorado River.

The quagga mussel shares most of the same traits as the better known zebra mussel; comes from the same areas in Eastern Europe and western Asia, i. e., causes billions of dollars of economic damage to water supply systems of all types by plugging intake screens and pipes, devastates natural resources and presents a serious health hazard. The physical differences are minor and relatively unimportant, but the unique biology of the quagga mussel allows it to spawn in and tolerate a wider temperature range, inhabit the deeper areas of waterways and survive in higher densities than the zebra mussel, making it an even more serious threat than zebra mussels.

The Colorado River finding has major significance to the rest of western North America in that many local Colorado Basin boaters transport their vessels out of the basin and many boaters from other areas of the west routinely haul their watercraft to the Colorado River reservoirs for recreation. In either case, quagga mussels may become attached to those watercraft and their equipment or their larvae may be carried in standing water found in the live well or bilge and then be inadvertently transported on trailered watercraft and spread to other waterways.

- Bill Zook, Outreach and Education Specialist  
Pacific States Marine Fisheries Commission



## Watercraft Inspection and Decontamination Training for Biologists, Boating Law Enforcement Officers, Marina Operators and Others Given Throughout the West

A course recognized by the natural resources agencies involved with the 100<sup>th</sup> Meridian Initiative and the National Association of State Boating Law Administrators has been developed by the US Fish and Wildlife Service, Pacific States Marine Fisheries Commission and the Environmental Protection Agency to teach various groups of professionals how to inspect all types of watercraft and equipment for zebra/quagga mussels and other Aquatic Nuisance Species and how to decontaminate a watercraft and equipment if that should become necessary. A training DVD and instruction manual based on this course has also been developed and over 600 copies have been mailed to boating law enforcement and natural resource management agencies in the 17 western states.

Both the DVD and live training have proven to be very popular and so far the live training has been delivered to large audiences in Arizona, Utah, Kansas, California, Washington and Alaska with scheduled trainings set for Colorado and Nevada in May, Oregon and several more in California in June of this year.

To get a copy of the training DVD or to schedule a live training contact Bill Zook, Pacific States Marine Fisheries Commission at [bjzook2@msn.com](mailto:bjzook2@msn.com) or at (360) 427-7676.



## Idaho Puts the Big Squeeze on Milfoil Statewide!

Eurasian water milfoil (EWM) was first found in Idaho in 1998 and by 2005 was estimated to have infested at least 7,500 acres, reported the State's EWM Task Force following the completion of a statewide survey effort. As a result of this finding, and a focused awareness campaign by Idaho State Representative Eric Anderson, ISDA staff and others, the Idaho Legislature approved and Governor signed HB-0869 directing that \$4 million be made available for EWM control treatments in 2006 and 2007. The goal of these treatments was eradication of EWM in treated areas and ISDA was to manage the program.

In spite of the very short time between the approval of this funding and the onset of the 2006 treatment season, grant program guidelines were put together and a 15-day application window was opened on May 1, 2006. Even with this short timeframe, 24 applications were received totaling over \$6 million. On June 2,

2006 the Application Review Committee recommended funding 14 projects ultimately totaling \$2.6 million.

The projects selected for funding in 2006 were predominantly those focused on control treatment efforts. In fact the top three projects in terms of cost, which totaled \$2.2 million, were primarily treatment projects. Public education / awareness projects and a boat wash station were also funded, however. The EWM Task Force obtained funding from this program to perform additional statewide water body surveys and also Early Detection / Rapid Response treatments of new infestations found in the Coeur d'Alene Lake watershed.

Funding is again being offered for statewide projects in 2007 and a second \$4million has been requested by the Governor for EWM control efforts. Thanks to the recommendations by an outside Review Panel which evaluated the effectiveness of the program in 2006, several improvements have been made; not the least of which are the longer application period and modified payment schedule. Further information on this program is available at the ISDA website. <http://www.agri.idaho.gov/Categories/PlantsInsects/NoxiousWeeds/milfoil.php>

- Dave Lamb, Chair, Idaho Milfoil Task Force and Lake Ecologist with the Coeur d'Alene Tribe

## Asian Goby Alert!

A small fish with a big mouth offers an unfortunate reminder that new nonnative aquatic species continue to arrive in the Columbia River Basin. Scientists recently identified a population of the Amur goby living in the East Fork Lewis River watershed near La Center, Washington; a single specimen was also collected downstream in the Columbia River estuary. This represents the first recorded introduction of these fish in North America (they're native to Asian waters). It's unclear how the goby arrived, but transoceanic shipping and aquarium hobbyists are likely sources.

To the untrained eye, the Amur goby resembles our native sculpin. However, one of their distinguishing traits are fused pelvic fins, which form a suction cup-like structure on their underside that helps these fish stay put in flowing water. It can reach a length of 4 inches, and is often seen resting on the stream bottom. Amur gobies typically have a mottled brown appearance, but breeding males are very distinctive, displaying blue and red coloration.

Scientists are still investigating the biology of this new intruder, including whether the Columbia River fish spend some of their time in saltwater similar to certain populations in Asia. It's also too early to know whether the Amur goby will prove to harm ecological or economic resources in the Columbia Basin, but it's safe to say there's not much hope for eliminating them. Our best defense is to avoid moving them further in the Northwest via angling, boating, etc.

Reporting new locations of these fish is also critical. If you find an Amur goby, or any other suspected new invader, collect a specimen and report your discovery to 1-866-INVADER.



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- Paul Heimowitz, ANS Coordinator



## Another Invasive Species May be Moving West

What's silver, can weigh over 50 pounds, and routinely leaps out of the water to smack boaters in the head? The infamous silver carp – one of several freshwater Asian carp species that threaten to invade the Columbia River Basin. Silver carp now occur in the Missouri and Mississippi rivers, and their tendency to jump out of the water when in the vicinity of an operating outboard motor has caused havoc to boaters. Stories of trauma by flying carp continue to mount! These fish, and their relatives the bighead and black carp, also present significant ecological risks. Silver and bighead carps are both filter feeders that grow large, multiply quickly, and can out-compete native aquatic life for planktonic food sources. Black carp primarily feed on mollusks, and therefore pose danger to native mussels and snails. These fish have attracted a lot of recent regulatory and legislative attention, and a great deal of energy and money is being spent to control their populations in the eastern United States (including construction of multi-million dollar electrical barriers to prevent spread into the Great Lakes).

Although the common carp and grass carp are no strangers to Pacific Northwest waters, these additional Asian carp species could spell more trouble if introduced to our region. The U.S. Fish and Wildlife Service is conducting a preliminary risk analysis to investigate if Columbia Basin waters could support the habitat needs of silver, bighead, and black carp. The study will also identify the most likely introduction pathways. This effort is directed at helping target subsequent Asian carp detection, prevention, and outreach programs. For more information, contact Paul Heimowitz at 503-736-4722 or paul\_heimowitz@fws.gov



## What if? Preparing for Response to a Zebra/Quagga Mussel Invasion in the Columbia Basin

It might happen like this: a watchful Columbia Basin marina employee notices some small shells clinging to the underside of a dock he's repairing. A nearby poster helps him confirm these shells resemble the quagga mussel that's invading the Colorado River (see related story, page 1). He makes some calls, and soon several biologists arrive to confirm that a small colony of invasive mussels is growing in several spots within the marina. Now what?

To help answer that question before the chaos kicks in, the Columbia Basin 100<sup>th</sup> Meridian Initiative Team has developed a draft rapid response plan for zebra and quagga mussels. Development of this plan began before the Lake Mead discovery,

and it will continue to evolve based on lessons learned from the Colorado River response. The main goal of the rapid response plan is to serve as a road map that expedites decision-making and information sharing. It covers all phases, from notification protocols to determining the feasibility of eradication, and establishes an intergovernmental task force that will cooperate to guide response actions based on the plan.

Although prevention is still the #1 goal, building a strong response capability can help contain impacts if zebra or quagga mussels do appear in the Columbia Basin. Becoming familiar with the rapid response plan now will help marinas and other water users play an important role if an actual infestation materializes. The plan and its appendices can be found at <http://100thmeridian.org/ColumbiaRT.asp>.

- Paul Heimowitz, ANS Coordinator  
US Fish and Wildlife Service

## Montana receives Portable Boat Wash System to help in the fight against ANS



Since 2004 Montana has operated a boat inspection program. Through this program boats are inspected prior to launching to ensure they are not carrying any unwanted plants or animals. In addition to the inspection all boaters and anglers are interviewed to identify popular transport patterns. Boats and other watercraft are known to be vectors of aquatic invasive species. Boats from 33 different states have been found to launch in Montana waters, many of which have come directly from ANS infested waters. The boat inspection program is one tool to help prevent an inadvertent ANS introduction on a trailered boat. Montana Fish Wildlife and Parks personnel decontaminate any boats that do not pass the inspection; one issue with the decontamination is ensuring that it is conducted in such a way that there is no contamination of adjacent waterways. A new addition to the program during 2007 is a self-contained portable boat wash system. The boat washer enables boats, trailers and equipment to be washed in such a way that all water from the boats is collected and treated within the system. It uses high-pressure hot water to clean the boats and can be trailered to almost any boat launch site within the state. For more information on watercraft inspection and decontamination please refer to the article on page 2.

- Eileen Ryce, ANS Coordinator  
Montana Department of Fish Wildlife and Parks

## ***Successful first year for the Oregon Clean Marina Program***

The Oregon State Marine Board has been very busy during the past year in promoting its Clean Marina program. Between May 2006 and March 2007 there have been 13 marinas certified, with an additional 27 facilities statewide on a sign-up list indicating their intent to work towards meeting the program's requirements. This voluntary program recognizes facilities that, in addition to being in compliance with environmental regulations, use a high percentage of environmentally responsible practices. In the Columbia basin there has been a very positive response to the program from marinas, with 12 of the 13 certified marinas located between St. Helens and Portland. In the Portland area, Columbia Crossings has been one of the biggest advocates of the program and now has all 5 of their marinas in Portland certified!

Aside from a marina employing best management practices while managing their day to day activities, one of the main components of the program is that certified marinas engage in educational outreach efforts to the public using their facilities. Outreach topics include: aquatic nuisance species awareness, preventing and controlling oil spills, handling on-boat sewage appropriately, using environmentally safe products to clean boats, and controlling marine debris among others. All of these topics are included in a printed booklet entitled "A Clean Boaters Guide – Protecting Oregon's Marine Resources". The Marine Board is hoping that during this next summer the public will become more familiar with the Oregon Clean Marina designation and what it means for a marina to have become certified. Marinas participating in the program are going to be held to a high standard of performance,

and putting that message out there that a certified facility has taken steps to protect the environment, will hopefully get recreational boaters to also take a look at what they can do to follow suit. The Marine Board will be working with several partners over the summer boating season to get the word out to boaters about environmental protection. If you are a marina interested in joining the Clean Marina program please contact Glenn Dolphin (503-378-2625 or [glenn.dolphin@state.or.us](mailto:glenn.dolphin@state.or.us)), and if you are in Washington then contact Chris Wilke (206-297-7002 or [chris@pugetsoundkeeper.org](mailto:chris@pugetsoundkeeper.org)) to learn about their program.



Columbia Crossings Marina in Portland receiving their Certification rewards.



- Glenn Dolphin, Oregon State Marine Board  
Oregon Clean Marina Program



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