

Zebra Mussels found on boat in Montana

A quick thinking angler averted a potential aquatic disaster near Bozeman Montana in early spring upon discovering his boat was infested with zebra mussels. Ed Roe, a resident of Montana, avid angler and board member for the local Walleyes Unlimited chapter, purchased a used boat from Indiana. The 18-foot Lund had been moored in zebra mussel positive waters and although it had been stored in dry storage over winter it had recently been run on the St. Joseph River, Indiana, which has been positive for zebra mussels since 1996. The boat had clusters of zebra mussels around the tilt and trim and mounting bracket. They were also found in the intake for the livewells and river water was present in the livewells and bilge. Much of the spread of zebra mussels is attributed to overland transportation on trailered boats. New waters become infested when attached zebra mussels fall off. Under cool, humid conditions, zebra mussels can stay alive for several days out of water, making transport from infested waters into uninfested waters in the west easy if precautions are not taken.

When Ed realized his boat was infested with zebra mussels he called Montana Fish, Wildlife and Parks. Once the boat was inspected and the mussels confirmed, Ed was instructed on how to clean his boat to ensure that Montana waters would not get infected. These instructions are the same for anyone who travels between different bodies of water. First, Ed pumped bleach through all the water systems of the boat including the livewells and motor (a 5 to 20% bleach solution is best); he then power washed the boat with hot soapy water and, using a bottle brush, cleaned out all the hard to reach areas. All the soap and bleach was rinsed from the boat, after which he could safely launch the boat without fear of contaminating his local waters with zebra mussels.

The closest zebra mussels to Montana waters have been found in the Missouri River near Yankton, South Dakota. If zebra mussels were to become established in Montana waters they have the potential to cause significant ecologic and economic impacts.

-- Eileen Ryce, Aquatic Nuisance Species Coordinator, Montana Fish, Wildlife and Parks

Missouri Basin "River Watch" Newsletter

A 100th Meridian Partnership Program between resource managers, marinas and resorts and other water users to prevent the introduction of zebra mussels into the Missouri River Basin



Volume 1, Issue 1

June, 2005

What Is The Missouri Basin "River Watch" Program?

A team of scientists, managers and environmental leaders representing all of the involved state, federal and tribal agencies and a number of private organizations has been meeting for over two years in order to formulate a strategy to prevent the unwanted and unintended introduction of zebra mussels into the Missouri River Basin. Very early into this process, the team identified the need to work closely with those businesses that provide services to recreational boaters traveling from areas of North America that are already infested with zebra mussels. It is almost certain that if an introduction occurs it will be from unknowingly transporting them on the hull, out-drive, trailer or from standing water located in the live-well or bilge of one of these boats.

I've spent several weeks each of the last three years traveling throughout the basin talking with and identifying all of those businesses most likely to have first contact with boaters that we have identified as presenting the highest risk. As a result of that work, we compiled a list of 54 marinas, resorts, marine sales/ repair facilities and portage operators we hope will become public outreach and education partners in this critical effort to protect the natural resource and economic health of the Missouri Basin.

Here's how to become a public outreach and education partner. First, if you are interested, please confirm your participation by calling Bill Zook at (360) 252-2700, faxing him at (503) 595-3232, or emailing him at bjzook2@msn.com. Once we have received your notification, I'll contact you by telephone and tell you about outreach materials and services we can provide to your business to make your participation as easy as possible. Once that has been determined, we will do everything in our power to support your continued participation by providing regular updates on issues of interest and by keeping you supplied with hand-outs and other outreach materials.

We need your help, so please join us!

-- Bill Zook - Pacific States Marine Fisheries Commission, Zebra Mussel Outreach Coordinator



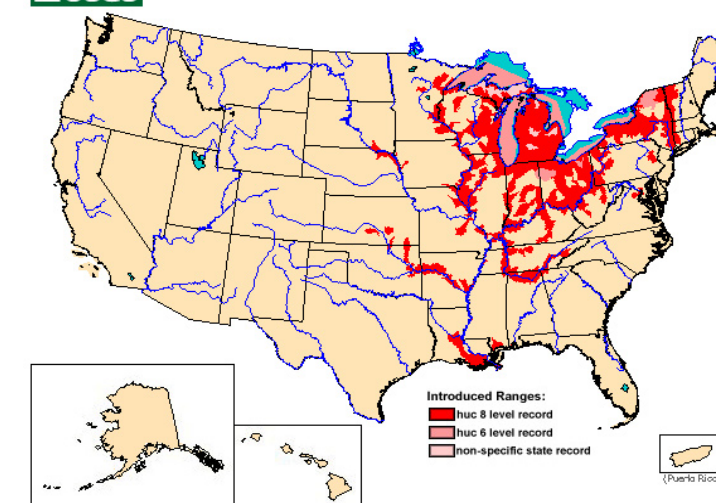
Why Be Concerned About Zebra Mussels Now

Due to the large number of boaters expected to come west for the Lewis and Clark commemoration, the chances for a zebra mussel infestation are significantly higher than in other years. Your state and federal natural resource agencies and others are concerned about the introduction of aquatic nuisance species (ANS) such as zebra mussels and want all citizens to join the fight to prevent their spread.

Currently found in 22 states, the zebra mussel is an aquatic nuisance species native to the Caspian region of western Russia. It was first sighted in the United States in 1988, has few natural predators in the U.S., and reproduces very quickly. Zebra mussels most often move from one waterway to another by hitching a ride on commercial barges and recreational



Dreissena polymorpha



Map created on 2/10/2005. United States Geological Survey

boats and trailers. They stick to any solid object, such as a boat hull, a motor, or a pipe, and larvae can sometimes be found living in standing water found in live well or bilge. Zebra mussels can also attach to aquatic weeds. Adult zebra mussels can live outside of the water for up to 5 days.

Once introduced, the zebra mussel can clog powerplant, irrigation, and public water supply intakes and pipes; damage boat engines, blanket shorelines with their sharp shells that have a foul smell; consume available food for native species and smother native mussels. After zebra mussels have taken hold in a waterway, they are almost impossible to eradicate. They ultimately threaten our aquatic ecosystems, water-based recreational activities, and could cost taxpayers and businesses millions of dollars.

Here are some facts and suggestions that will help prevent the spread of zebra mussels during the Lewis and Clark Bicentennial:

Description

- A zebra mussel looks like a small clam with a D-shaped shell. Usually it has alternating dark and light stripes (thus the name)
- Usually the adult is the size of a fingernail
- Usually found attached to hard surfaces in clusters
- Young zebra mussels look like black pepper and feel like sandpaper when attached to a boat surface

How to prevent zebra mussels from hitching a ride

As you leave a body of water:

- **Inspect** your boat and trailer.
- **Remove** any plants and animals.
- **Drain** lake or river water from your motor, live well, and bilge while on land.
- **Dispose** of unwanted live bait on land or in a trash receptacle.
- **Rinse** your boat, trailer, and equipment with high-pressure or hot water.
- **Dry** your boat and equipment for as long as possible (at least five days is preferable).

This space reserved to list of the businesses participating in the "Basin Watch" Program

To see your business listed here in future editions, join us today!

For more information, contact Bill Zook at (360) 252-2700, fax (503) 595-3232, email bjzook2@msn.com.

ANS From Within

Sportfishing is one way to spread aquatic nuisance species (ANS), which is why an ongoing educational campaign encourages recreational anglers to take ANS prevention seriously.

Anglers, hopefully, are aware of the need to clean and disinfect their boats and equipment between trips and waterbodies, and to properly dispose of unneeded baits. These precautions are important, as anglers often travel great distances between waters.

State fish hatcheries, private fish rearing facilities and the live baitfish wholesalers are now also involved with ANS prevention efforts. These groups can utilize a new system, Hazard Analysis and Critical Control Point (HACCP) as an effective method to prevent the spread of ANS. HACCP was developed by the seafood industry to improve their product and has been adopted by others. It works by: 1) determining and documenting if there is a problem; 2) taking effective preventative actions at the best place to control the problem when needed; and 3) checking to see that the preventive actions are working correctly.

HACCP makes sure that fish being stocked by state or federal agencies are not contaminated with undesirable species, and that the water used to transport the fish is free of plant fragments and other forms of ANS. These efforts also include making sure equipment is clean and disinfected.

Baitfish retailers can use HACCP to prevent ANS from being moved in a load of minnows or other baits. By following HACCP, fish rearing facilities can also prevent captive fish from escaping into the wild, while making certain used water or wastes from cultured fish are not allowed to enter public waters.

State and federal conservation agencies are using the same ANS prevention protocols employed by recreational anglers. Fish managers clean their boats and equipment to prevent the spread of ANS while making certain not to spread exotic species from one fishery to the next during fish management practices.

When ANS infestations occur, fisheries are negatively impacted. ANS prevention is taken seriously by all those who work in recreational fishing. And it will take all of us working together to prevent the spread of ANS.

Our aquatic resources are important and need to be protected from aquatic nuisance species.

-- By Lynn R Schlueter, Special Project Biologist, North Dakota Game and Fish Department

To Report a Zebra Mussel Sighting, You Can Do Any of the Following:

- Call 1-800-437-2744. This is the Bonneville Power Administration and Bureau of Reclamation Crime Witness Number, which also takes reports of zebra mussel sightings. They will then contact your state's fish and game agency to alert them of the sighting.
- Call your local state fish and wildlife agency and report the sighting. Often times, an agency representative will come to the scene. Contacts for your state are listed below:

Montana Department of Fish Wildlife and Parks - 406-444-2448

- Talk to the boat owner and encourage him/her to remove and properly dispose of the zebra mussels before placing the boat in any water body.

Becoming a Zebra Mussel Monitoring Volunteer

The Columbia River is a vital economic, biological, cultural, and recreational component to the Pacific Northwest. Preventing the spread of zebra mussels to the Columbia River and its associated waterways in Oregon, Washington, Idaho, Montana, and Wyoming is the primary objective of the Zebra Mussel Monitoring Network coordinated by the Center for Lakes & Reservoirs at Portland State University.

Monitoring is designed to detect the presence of zebra mussels as early as possible in any new water body. The Zebra Mussel Monitoring Network coordinates volunteers to respond in a manner that will minimize their future impact on that and other resources in the area. Like any other blight, detecting the presence of zebra mussels early is the most important factor in determining how damaging they will be within the Columbia Basin.

The Zebra Mussel Monitoring Network coordinates volunteers like yourselves, throughout the western U S who have access to lakes and rivers. Volunteers are provided a PVC substrate to hang on their docks and monitor for zebra mussel colonization and are asked to check them monthly and submit a reply report card (provided) to the Aquatic Nuisance Species Volunteer Coordinator at the Center for Lakes & Reservoirs to indicate signs of colonization. If there is a positive sighting, authorities are alerted and further steps are taken to determine the extent of colonization.

Questions about becoming a zebra mussel monitor should be submitted to Mary Pfauth, Zebra Mussel Volunteer Monitoring Coordinator at 503-725-2937 or invasivespecies@pdx.edu.

What is the 100th Meridian Initiative?

The 100th Meridian Initiative represents the first comprehensive and strategically focused effort, involving Federal, State, Tribal and Provincial entities, potentially affected industries, and other interested parties to begin addressing pathways to prevent the westward spread of zebra mussels and other ANS. Success will depend on the commitment and support of these groups to aggressively combat the introduction and spread of these destructive invaders.



Courtesy of USFWS

The major pathway for zebra mussels to invade the West is not from the ballast water of ships but from boats, personal watercraft, and related equipment transported from infested to uninfested waters. Zebra mussels attach to hulls, trailers, and other exposed locations on boats, boating equipment, and personal watercraft. Their free-living larva can enter motors, live wells, or other moist areas. Adults may remain viable for more than 5 days when attached to boat hulls. Their adaptability, their lack of natural predators, and the propensity of boaters to move their boats from one body of water to another have facilitated the rapid spread of zebra mussels throughout their current range.

The goals of the 100th Meridian Initiative are to: 1) prevent the spread of zebra mussels and other ANS in the 100th meridian jurisdictions and west and 2) monitor and control zebra mussels and other ANS if detected in these areas. These goals will be achieved by addressing seven components: 1) information and education, 2) voluntary boat inspections and boater surveys, 3) commercially hauled boats, 4) monitoring, 5) rapid response, 6) identification and risk assessment of additional pathways, and 7) evaluation.

For more information visit www.100thmeridian.org.

-- Reprinted from 'The 100th Meridian Initiative: A Strategic Approach to Prevent the Westward Spread of Zebra Mussels and Other Aquatic Nuisance Species', USFWS

Power Wash Poster Available!


The poster depicted below was developed to make it easier for boaters to locate the nearest boat wash facility if they are coming into the Missouri Basin from a state with zebra mussels. All marinas, resorts and businesses that may come into contact with out-of-region boaters will be provided with several copies of this poster and asked to fill-in specific directions from their place of business to the nearest wash facility capable of cleaning boats and to display the poster in a prominent location(s) on site. If you operate one of these businesses in the Missouri River Basin, please keep a eye out for these posters which are expected to be mailed directly to businesses early this summer. If you are interested in how you can join this effort as an outreach partner, please see the article on Page 1 (Missouri Basin "River Watch" Program) and follow the instructions there.

ATTENTION BOATERS AND ANGLERS

Zebra mussels can ruin your favorite fishing and boating areas

Clean your boat before you float!

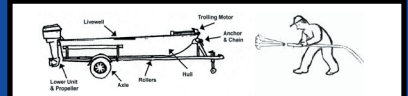
Coming from a high risk area?



If you have been boating in an affected area, please take your boat to the nearest power wash facility (see directions), wash your boat, and inspect it carefully before launching.

You may not see young zebra mussels with your naked eye! You may be able to feel them by running your hand along the hull of your boat. A rough texture is a clue that zebra mussels may be attached. Always rinse out livewell and other areas where water and zebra mussel larvae may have collected.

Directions to the nearest power wash facility:



To report zebra mussels call 1-800-437-2744.

Collecting Information

Who is boating on our waters and where they are coming from?

All of the agencies and groups involved in efforts to prevent an introduction of zebra mussels into the Missouri River Basin recognize the importance of conducting boater surveys. Trained personnel have been conducting voluntary boat inspections and boater surveys at highway stops located on 11 major highway corridors entering the west from infested areas and at marinas and launch ramps throughout the western U S

Boaters are surveyed to learn where their boat has been and their next destination etc... They each receive a brochure explaining the initiative and what actions they can take to prevent the spread of zebra mussels.

Because resource management agencies need valid data to make their decisions, data is being collected using a personal data assistant (PDA). Like the private sector, time is money; so, the quicker they obtain informa-

tion, the faster they can initiate actions. With aquatic invasive species, time is of the essence. The data collected is used to focus outreach and education efforts and to identify possible zebra mussel entry points before it's too late.

Information from boater surveys completed in the Missouri River Basin can be found on the 100th Meridian website (see below). The data there are based on surveys conducted between 1998 and 2004.

To learn more about this program visit the 100th Meridian PDA website at: <http://www.100thmeridian.org/PDA/default.asp>

-- Amy J. Gaskill, APR, US Fish and Wildlife Service, Fisheries Program, Outreach/Public Affairs Specialist

Zebra Mussel Monitoring on the Missouri River

(Pierre, South Dakota) – Following the discovery of juvenile zebra mussels in the Missouri River below Ft. Randall and Gavin's Point dams, natural resource officials have stepped up monitoring efforts throughout the Missouri River system. A contract biologist funded by Nebraska Game and Parks and South Dakota Game, Fish and Parks documented zebra mussel veligers (larval form of the mussel) near Niobrara and St. Helena, Nebraska during 2003. The agencies contracted with the same biologist again in 2004. However, all sample results were negative for zebra mussels. Additionally, Nebraska and South Dakota officials in conjunction with the U.S. Army Corps of Engineers and the National Park Service placed monitoring substrates along the middle Missouri River (from Ponca, NE to Pierre, SD) during 2004. No juvenile or adult zebra mussels were found attached to the monitoring substrates.

The failure to document zebra mussels in the Missouri River during 2004 does not mean this exotic species has disappeared from the river. A small, pioneering population of zebra mussels may still exist in the Ft. Randall Dam area, or possibly farther upstream. Officials will increase monitoring efforts during 2005. South Dakota will be sampling for veligers from Gavin's Point Dam upstream through Lake Oahe. A contract biologist will again sample for veligers and adults from Ft. Randall Dam downstream to Ponca, Nebraska. Montana Fish, Wildlife and Parks will sample for veligers from the headwaters of the Missouri River downstream to Ft. Peck Reservoir. Nebraska Game and Parks and North Dakota Fish and Game may also

collect veliger samples in their respective portions of the river. National Park Service, U.S. Army Corps of Engineers, state park officials, and volunteers will be relied upon to monitor substrates and boat docks. Hopefully these efforts will provide more answers regarding the extent of the zebra mussel presence in the Missouri River.

-- Jeff Shearer, ANS Coordinator, South Dakota Game, Fish and Parks