

Zebra mussels

Mussel signs found in Flathead Lake

Whitefish Pilot

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The results are not conclusive, but Fish, Wildlife and Parks officials reported last week signs of exotic mussels were found in a routine plankton sample taken in July from the northern end of Flathead Lake near Woods Bay.

The larval samples were collected during routine water-quality sampling conducted by the Northwest Montana Lakes Volunteer Monitoring Network, a partnership between FWP, the Flathead Basin Commission and the Whitefish Lake Institute.

Eileen Ryce, FWP's aquatic invasive species coordinator, said microscopic larvae suspected to be from exotic mussels may be contained in four of 17 plankton samples collected from the 200-square-mile lake between May and August. The samples were sent to three out-of-state laboratories for testing.

"These larvae are notoriously difficult to identify at this stage of development," she said. "With this sample, the question mark is the size of the larvae, which are significantly smaller than what we'd expect. But we'll err on the side of caution."

Ryce said FWP will send a team of divers to several locations on the north end of Flathead Lake to search for adult mussels, which can be as tiny as sesame seeds.

First discovered in the U.S. in the Great Lakes in the 1980s, zebra mussels have since spread throughout the Midwestern and mid-Atlantic states. They were likely transported in boat livewells, where the microscopic larvae can survive for weeks. Western states sounded the alarm in 2007 when quagga mussels were found in Nevada's Lake Mead.

A predator doesn't exist in the U.S. to keep exotic mussels numbers in check. They can reproduce and spread rapidly, especially on hard surfaces like docks, piers and boat hulls — even the shells of living organisms, such as lobsters and clams. The mussels can also block water intake pipes, clog irrigation systems, disrupt water purification and hydropower plant operations, and may impact fishery populations.

The Flathead Lake sample that contained the suspicious, microscopic larvae was among 11 collected from the lake by volunteers from the Whitefish Lake Institute in July and delivered to FWP in late September. The remaining suspected samples will be submitted for additional DNA testing.

"We started collecting zebra mussel presence/absence samples in 2009 as part of the Whitefish to Eureka Volunteer Lake Monitoring Program due to the increased zebra mussel threat in Northwest Montana," Whitefish Lake Institute executive director Mike Koopal said.

The lake-monitoring program was started in 2008 to engage "citizen scientists" and to develop trend information on local lakes. The program combined with the Flathead Basin Commission Volunteer Monitoring Program in 2010 and now monitors about 60 lakes.

Koopal said the good news is that samples from Whitefish Lake and other local lakes for the past two years have come back negative for signs of zebra mussels.

"However, I do have significant concerns regarding the possibility of zebra mussels invading Whitefish Lake and other local lakes," he said. "This past year, we sent our intern to City Beach to conduct boat surveys to determine where boats are coming from and if people had heard of the different invasive species, in order to assess the threat here in Whitefish."

Koopal said he knows of one confirmed case of a boat that traveled here from Lake Mead.

"The information I got is that the boat looked very clean and had gone through inspection stations in other states," he said. "But that doesn't mean zebra mussels or their larvae could have been missed in the inspections. Larvae can live in the residual water in a boat motor for extended periods of time."

Koopal said his group has also started sampling for calcium to determine what local lakes would promote the growth of zebra mussel shells.

"The bad news is that most lakes have an adequate calcium source to promote growth," he said, "but there are myriad factors on whether a water body will be conducive to the infestation of an invasive species."

FWP contacted downstream partners in Idaho, Washington and Oregon on Nov. 12 to alert them of the suspicious finding. The states agreed the evidence was not sufficient to trigger a rapid response program, which would immediately include evaluating control, containment and eradication options. Ryce noted that the states will remain in close communication as follow-up testing continues.

Koopal called the finding a wake-up call for residents in Whitefish.

"I know it's hard for people to envision the consequences of a zebra mussel infestation, but it will be crystal clear if it happens," he said. "I'd hate to see our water quality change, or the ecology of the lake shift, or for us to lose recreational opportunities."

During Montana's last legislative session, Senate Bill 343 was passed earmarking \$300,000 for the prevention of aquatic invasive species statewide.

"That's literally a drop in the bucket compared to the funding appropriated by other states already affected by aquatic invasive species," Koopal said. "Montana needs to take a stronger stance on this complex issue by strengthening SB 343 and forming more state-to-local partnerships."

Moving forward, FWP, the Flathead Basin Commission and the Whitefish Lake Institute have partnered to fund a full-time position to administer the volunteer monitoring program. The position is currently advertised online at www.whitefishlake.org.

"Montana's best defense against invasive species is for boaters and anglers to inspect, clean and dry their boats, trailers and fishing gear after each use," Ryce said.

Citizens can report anything suspicious they find in local lakes by visiting online at www.nwmtlvm.org. For more information on zebra mussels, visit online at fwp.mt.gov and click "Inspect. Clean. Dry."