

Program to Slow Spread of Invasive New Zealand Mudsnail in Deschutes River

by Bend Weekly News Sources

The Center for Lakes and Reservoirs and Portland State University was granted \$14,979 for a project designed to slow the spread of the invasive and harmful New Zealand mudsnail in the Deschutes River. The grant will be leveraged with \$4,720 of matching funds to support the projects under the Native Fish Habitat Initiative-Pacific Northwest Fund (NFHI-PNW). This fund is a partnership between FWS and NFWF with money coming from the FWS and administered by NFWF. New Zealand Mudsnail, Photo courtesy of Portland State University Center for Lakes and Reservoirs Portland State University's Center for Lakes and Reservoirs will conduct outreach with the goal of slowing the spread of New Zealand mudsnails in the Deschutes River in Central Oregon. Federally listed as a Wild and Scenic River, the Deschutes River supports native fisheries of national significance, including salmon, steelhead, redband trout and bull trout.

In 2005, the invasive New Zealand mudsnail was confirmed in the lower Deschutes River, which has the potential to detrimentally affect aquatic resources through competitive interactions with native invertebrates and associated changes in community structure and ecosystem function.

The project will develop a variety of prevention tools, such as gear cleaning stations and prevention workshops, to raise awareness of New Zealand mudsnails with a variety of constituents, including anglers, rafters, boaters, field biologists, tribes, and watershed councils.

The project will also develop a citizen monitoring network for early detection and prevention, and will build long-term collaborative partnerships with agencies, tribes, and non-governmental organizations.

According to the Portland State University Center for Lakes and Reservoirs web site, The New Zealand mudsnail, *Potamopyrgus antipodarum*, was first discovered in the Snake River, Idaho in the 1980s. It is now rapidly spreading throughout the western US and has become established in rivers, lakes and estuaries in 10 western states and three national parks. Mudsnails were first reported in Oregon, outside of the Snake River, in 1994 from Young's Bay Astoria.

The mudsnail is a parthenogenic livebearer with high reproductive potential -- in other words it reproduces by cloning (most mudsnails in the West are genetically identical females), broods its young internally, and can reproduce relatively rapidly - often reaching densities greater than 100,000/m² in suitable habitat. Researchers in Montana report densities of this tiny snail (no longer than 5mm or less about 1/8 inch) approaching 750,000/m² in parts of Yellowstone National Park.

Due to this population growth mudsnails may comprise a significant proportion of the invertebrate biomass in invaded systems. Although limited research on mudsnails exists to date, decreases in native macroinvertebrate populations in several rivers have been documented. Mudsnails have also been shown to drastically alter primary production in some streams. As a result of these studies and the vast densities of mudsnails in Western rivers and streams this invasion has generated much concern about the potential effects it may have on native species, fisheries, and ecosystem health in the US.

Due to their small size, nondescript color and the ability to seal themselves up to avoid drying out, mudsnails can survive for days out of water and can be transported from location to location by unsuspecting boaters, anglers and other water users such as fish hatcheries, aquatic biologists, etc. Mudsnails may be transported in damp wading boots, poorly rinsed anchors and boat wells, nets and other gear.

Because mudsnail transport is predominantly human driven it is imperative that water users and recreationists take great care to prevent further spread of these invasive species.

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