



Agriculture and Invasive Mussels

Information for Montana's Irrigators Regarding Invasive Mussels

Invasive Mussels in Montana

In October 2016, aquatic invasive mussel larvae were detected in samples from Tiber Reservoir, Canyon Ferry Reservoir, the Milk River downstream of Nelson Reservoir and the Missouri River upstream of Townsend. Only Timber Reservoir mussel samples have been verified upon resampling. Extensive sampling will begin again after melt off, spring 2017.

These Quagga/Zebra mussels have the potential to drastically affect the way of life in Eastern Montana. Quagga and Zebra mussels devastate water resources and related infrastructure where they invade. In addition to the threat of invasive mussels being transported from Canyon Ferry and Tiber Reservoirs, there exists the threat of invasive mussels being transported into the state from infected waters outside of the state. The Midwest and southern states are the biggest source states for these mussels. Currently, the Columbia River Basin has no invasive mussels.



Zebra mussels have attached to this fatmucket mussel, a native mussel to Montana. (left) Photo by Rachael Ruggles at a MN lake. Clogging of pipe by mussels. Photo from Mussel Prevention Program, San Luis Obispo Co., Calif. (right)



Invasive Mussels Threaten Agriculture

These colonizers can attach to any hard surface that is underwater. Colonization of the mussels has the potential to render headgates inoperable, block water intake pipes, damage pumps. They also filter essential nutrients from the water, changing plant and animal communities. Thankfully, the spread of invasive mussels can be prevented:

- before transporting anything that has been in the water, drain all the water from every compartment of the equipment;
- leave equipment to dry for at least 48 hours before entering another body of water or moving upstream in a river
- never release plants, fish or animals into a body of water unless they came from that waterbody and that location.

What Landowners and Irrigators Should Know

System components at greatest risk of infestation are: intake structures and screens, pumps, small-diameter piping and valves, dead ends in the pipeline, areas with low water flow/velocity conditions or with stagnant water, and areas with abundant organic matter and oxygen.

Think about containing the spread of these aquatic invasive species in the same manner that you work to contain the spread of noxious weeds by answering these questions:

- Where did your irrigation equipment (i.e. pump) come from?
- When working in the stream or along the bank, know the history of the construction equipment doing the work. Has it been in other streams? Has it been cleaned, drained, and dried?
- When hauling water, what is the source of that water?

What Landowners and Irrigators Can Do

- If there is any chance the equipment that you are using may have been used in a waterbody containing mussels or other invasive species, be sure to clean, drain, and dry it.
- When hauling water be sure to only transport mussel-free water. Well water is the safest option.
- Help spread the word to others
 - Ask boaters and fishermen if they know about invasive mussels and if they have cleaned, drained, and dried their boats and fishing equipment before accessing a stream or lake along your property.
 - Ask road crews when they are hauling water for road work about the source of their water and where they are using it.

Where to get More Information

Contact your local Conservation District - <http://macnet.org/about-us/conservation-district-contacts/>

Contact your Regional Fish, Wildlife, and Parks office - <http://fwp.mt.gov/regions/>

Or visit the Montana Mussel Response webpage - <http://musselresponse.mt.gov/>

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