## PREVENTING THE SPREAD OF AQUATIC INVASIVE SPECIES

Aquatic invasive species (AIS) are not new to Montana, but the fight against them came into sharp focus recently.

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Getting out for a day on the water or making plans for a trip often seem to bring out the inner scientist in water recreationists. As an angler, I have frequently found myself obsessively working to deduce the hatch that trout are rising to, contemplating the reason the walleye bite is off, pouring over obscure entomology websites, or reading National Weather Service forecast discussions for a favorite reservoir or lake. Similarly, paddlers may check river gage websites daily, watching for optimal flows for a given stretch of river. As casual scientists, anglers and boaters have a new subject to obsess over and our attention to detail in the matter could have consequences for many water users and water bodies across our state.

Aquatic invasive species (AIS) are not new to the recreation and angling world. For many years, state agencies, including Montana Fish, Wildlife and Parks (FWP) and the Montana Department of Natural Resources and Conservation (DNRC),



have focused time and money on fighting many types of AIS, including invasive aquatic plants, microorganisms, and other animals.

The fight against AIS came into sharp focus these past few months as Tiber Reservoir tested positive for invasive mussel larvae and Canyon Ferry Reservoir and the Missouri River near Townsend both had water samples suspect for the mussel larvae. The state, under the direction of Governor Steve Bullock and a joint incident command team with the DNRC and FWP, has developed an outline for a response in an effort to contain the mussels where they are currently thought to be and protect other water bodies around the state.

Typically, about 700 water samples are taken each year in Montana just to test for aquatic invasive mussels, and that number will increase this year. Additionally, AIS inspection stations operate each spring and summer around Montana and those with watercraft are legally required to stop at each inspection station they pass. Last year, FWP inspected more than 37,500 boats at inspection stations. This inspection effort will also increase, but state agencies need the help of the recreating community, both anglers and boaters. That's why our Clean, Drain, Dry message is so important. It's the most effective way to stop the spread of AIS.

**Clean.** After you are done recreating at a water body, completely remove all plants, animals, mud, and standing water from your vessel. Inspect your boat, trailer, and all gear. Pay close attention to crevices and hidden areas. This can be accomplished by using a power washer at a car wash. There is no need to use chemicals or soap. All that is needed is hot water. The hot water kills organisms and the pressure removes

Inspectors examine watercraft and interview recreationists at a Montana Fish, Wildlife & Parks watercraft inspection station. mud and vegetation. For material removed from your boat before leaving the river access, make sure to deposit debris away from the water and boat ramp. If cleaning your boat after leaving the river access, deposit debris in the trash or at least away from water or places where it might be carried to nearby streams during a storm event.

**Drain.** Drain or remove water from your boat, bilge, live wells, engine, internal compartments, and bait buckets by removing drain plugs before leaving the river access area. Standing water is particularly worrisome because there are organisms that are microscopic for at least part of their developing lives. Draining the water is the best way to make sure aquatic invasive species don't get transported to someplace new. If possible, draining is best done at the river access but away from the boat ramp and the water, just in case small traces of older water from other water bodies were still present.

**Dry.** Aquatic invaders can only survive in water and wet areas. Drying your watercraft and recreational equipment thoroughly, if given enough time, will kill aquatic invasive species. The longer you keep your watercraft, trailer, waders and other equipment outside in the hot sun between trips, the greater likelihood these critters will die.

## **Current Situation**

2016 turned out to be an alarming year for AIS in Montana. In September, FWP implemented an emergency closure of the Yellowstone River because of a fish killing parasite that was impacting primarily mountain whitefish, but also trout in reaches of the river from Yellowstone National Park downstream past Livingston.

Test results on whitefish collected from the main stem of the Yellowstone late in the summer of 2016 indicated the catalyst for the fish kill was Proliferative Kidney Disease (PKD). The disease is caused by a microscopic parasite known to occur in Canada, the U.S., and Europe. PKD was documented previously in two isolated locations in central Montana during the past 20 years. Recent outbreaks have occurred in Washington, Oregon, and Idaho.

Other factors – high water temperatures, low stream flows, and recreational stressors – in concert with this infection increase mortality. The parasite causing PKD was found in several other rivers in southwest Montana and is considered an aquatic invasive species.



Volunteers rake curlyleaf pondweed.

As for aquatic invasive mussels, the positive and suspect tests came in mid-October. On November 30, 2016, Governor Bullock declared a natural resources emergency and set up the joint agency command team. That team worked for nearly two months to put together a plan for containing and monitoring aquatic invasive mussels in Montana. On January 20, 2017, the command team transitioned from a planning phase to an implementation phase, which will continue through the spring and into summer 2017.

Ultimately, managing the risk of AIS spreading to other state waters continues to be a top priority for FWP and other state agencies. For water bodies testing positive or suspect for AIS, (i.e., invasive mussels in Tiber and Canyon Ferry) our goal is to limit the spread and impact as much as possible.

This entire effort is done in cooperation with our recreating public. Anglers and other water-based recreationists must understand that they have an important role to play in managing the risk of spreading AIS to our waters. Our economy and the health of our fisheries and waterways depends on our prevention efforts. Remember to always follow our Clean, Drain, Dry protocols.