

Aquatic Invasive Species: Dodging the Bullet
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When I first started drafting this article in my head, we were receiving several inches of snow. The trees were frosted with white. The mountains were hiding. The colorful male pine grosbeak in the green and white trees added to the vision of a winter wonderland. I was going to start out with a facetious remark about how I was sure that, given the current weather, a topic in the forefront of everyone's thoughts is AIS: aquatic invasive species. Will we dodge the bullet this year?

Then came the temperatures in the mid-fifty's. My driveway is brown again! The icicles are gone and I feel the urge to start planting my garden. Regardless of how bizarre this winter has been, spring is coming, followed by summer. Our beautiful lakes will be at risk again.

Did the Clearwater Chain of Lakes dodge the AIS bullet in 2011? We think so. The five major lakes, Alva, Inez, Seeley, Salmon, and Placid, and about a dozen smaller lakes in the valley, were mapped for submerged, aquatic plants. No invasive species were detected. Volunteers monitored for adult zebra mussels on those same lakes and on Big Sky Lake. Nothing found. In the process of learning how to use the equipment to collect samples for the microscopic juvenile form of the mussels, called veligers, we collected samples from Alva and Inez, and sent them to Helena for testing. Those samples were negative.

The boat inspection station at Clearwater Junction finally got up and running on Labor Day Weekend. The legislature changed the responsibility for the inspection stations from the Department of Agriculture to Fish, Wildlife, and Parks (FWP), effective July 1, 2011. But there wasn't enough money for a station at Clearwater Junction. With a big boost from the US Forest Service, through the Collaborative Forest Landscape Restoration Program (CFLRP), funding was in place to run the station, inspectors were hired and trained and another layer of protection for our lakes was operational.

I worked as an inspector at the check station. It was an interesting experience. We don't have mussels in Montana and nearly all the boats coming through the inspection station were boats that never leave Montana. We only had one boat come through, while I was on duty, that was from a high risk state (for zebra mussels), but they were traveling through to Washington and I gladly said goodbye to that boat. Montana does have invasive plants: to the east of us and to the west of us. Any boat that had launched in any of the waters known to have invasive plants received extra careful inspection.

Unfortunately, other areas of Montana didn't fare so well. Eurasian Water Milfoil (EWM) was located along the entire length of the Missouri, from its headwater rivers to the Peck Reservoir. Canyon Ferry, Holter, Hauser, ... All popular destinations for boaters who also recreate in our lakes. Those infested waters now pose a large risk for us. The first known infestation of EWM in Montana, in the Noxon Reservoir in 2007,

still blankets several hundred acres, has cost a lot of money to treat, and is a threat from the west.

EWM was reported in Eagle Bend Marina north of Flathead Lake. The team that was dispatched to inspect the marina did not find EWM. They found curly leaf pondweed (CLP) instead. Oh fun! A whole new vocabulary of acronyms to learn! CLP was found in large amounts in the marina, in the slough leading from the marina to the Flathead River, and along the river as far as 2 miles above the slough. What! A plant can swim upriver?!?! Of course not. It was moved there by boats coming out of the harbor. CLP was also found in Flathead Lake. This is really not good. Flathead County Weed District is going to be busy for a long time treating this infestation. Different procedures will be used at different locations depending on how thickly the plant is growing and the environmental characteristics of the location, e.g. flowing river water or not-flowing lake water. The infestation in the harbor is thick enough to require injection of herbicides into the water column.

To add insult to injury, EWM was identified on Beaver Lake, a small lake north of Whitefish. The Flathead County Weed District also has responsibility for treating that infestation. Fortunately, it was detected early and hadn't spread. They hit it hard and we're hoping that a couple of summers of mop up will completely eradicate EWM from Beaver Lake. Beaver Lake is fished mostly by locals who also fish elsewhere. The infestation is right at the boat launch. Boaters can't avoid it. For these reasons, the Flathead AIS Working Group voted to recommend closure of Beaver Lake to all watercraft during the plant growing season. The goal is to not spread EWM to other locations in Beaver Lake, or from Beaver Lake to other local lakes.

Beaver Lake is a perfect example of "Early Detection, Rapid Response". While our goal is prevention, it would be unrealistic to rely on total prevention of all forms of AIS. After preventive measures are in place, the next priority is early detection, so we can respond rapidly, and hopefully eradicate an invasive before it gets fully established.

I should mention that the Clearwater watershed is not completely free of aquatic invasives. The Missoula County Weed District has been treating Yellowflag Iris along the Clearwater River below Salmon Lake for years. In recent years, they also detected Purple Loosestrife. These are plants that grow in the wet areas along the water and not so much in the water; certainly not submerged. They are classified as noxious weeds. These plants likely escaped from ornamental gardens near the river and spread downriver.

So, what are we doing to dodge the bullet in 2012?

- The Clearwater Junction inspection station is scheduled to operate over the full summer, 12 hours a day, 7 days a week. FWP is currently hiring inspectors.
- Campground hosts will receive training on AIS recognition.
- Missoula County Weed District (MCWD) will be back on the water, mapping aquatic plants. Their plans include re-mapping Seeley, Salmon, and Placid, and mapping Big Sky and Clearwater Lakes for the first time. They will also be

- spending a lot of time mapping rivers this summer. Their area of responsibility includes the Bitterroot, Clark Fork, Blackfoot, and Clearwater Rivers. That's adding up to a busy summer and it's certain they won't be able to do it all.
- Clearwater Resource Council, with the help of our many friends and partners, will be providing a loaner AIS kit for each of the five major lakes and Big Sky Lake. The kit will include the equipment and materials for aquatic plant identification and mapping, veliger sampling, and adult mussel monitoring.
 - Using these kits, the plan is to sample for veligers twice a month throughout the summer, on each lake. FWP will again provide testing, using a microscopy method. Several replicate samples will also be tested by the Flathead Lake Biological Station using a DNA screening procedure.
 - Volunteers will continue to monitor for adult mussels at their docks.
 - Clearwater Resource Council will launch a new program to monitor for adult mussels that will interface with the Geocaching network. We're going to create "aqua-caches" that will, hopefully, be located and inspected by geocachers and logged on the Geocaching website. We hope to combine fun and science.
 - A major focus for this summer will be aquatic plant identification. Plans are being drawn up to host several events for the general public (you and me) to learn about the plants that are native to our lakes. If we know what belongs here, we'll be more likely to recognize an unwanted intruder.

Hopefully, this will be enough to dodge the AIS bullet again. There's plenty to do. Anyone wanting to be a part of the solution is welcome. Give me a call at (406) 210-8453.

As a final note, Idaho opened their boat inspection stations on I-90 in early February. They have already detected 3 mussel-infested boats. Two were passing through to Washington and were given a police escort to the waiting Washington authorities. One of those two was a Homeland Security boat being relocated from Ohio to Washington. The third boat, from Lake Mead, was destined for a location in Idaho. It was impounded and will be decontaminated and inspected again before continuing its journey. To get on I-90 in Idaho, traveling from east to west, they had to go through Montana – didn't they?

Curley-Leaf Pondweed, photo by Erik Hanson



