

Invasive species' various pathways of spread: A closer look

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The movement of boats throughout Minnesota and within Hubbard County has been a major focal point in shielding our lakes from the spread of aquatic invasive species (AIS).



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Recreational watercraft used on zebra mussel-infested waters are at risk of transporting zebra mussel larvae (also called "veligers") in water trapped inside the boat after removing it



This fall, Kittilson took this photo at a public access on Gull Lake, near Brainerd. Vegetation entangled on the boat trailer could potentially carry zebra mussel adults or larvae and transport them to another lake. Gull Lake is infested with zebra mussels.

Dan Kittilson/For the Enterprise

from the water.

Boaters are able to drain some, but not all of the residual water trapped in areas such as bilges, live wells, ballast tanks and engines.

The Minnesota Aquatic Invasive Species Research Center (MAISRC) suggests that if zebra mussel veligers moved by water in boats are the pathway, or "vector," for spread to area lakes, then multiple or massive introductions are necessary for an infestation to occur in our area lakes.

However, boats are not the only pathway for a new infestation to occur in a Park Rapids area lake. The MAISRC further reports that juveniles or adult zebra mussels may be transported in attached vegetation entangled on trailers, boats, docks, lifts and resident boats (boats moored in water) are more likely to contribute to the spread of zebra mussels and other AIS.

Current research by MAISRCC suggests that so-called "super-spreader" lakes, like Mille Lacs, are *not* the source of zebra mussel infestations throughout Minnesota; rather mussels spread locally in lake-rich regions. Initially, one or more introductions come from outside the region, then are followed by local spread via

overland transport and downstream from lakes.

Data from the DNR'S infested waters list supports that once zebra mussels are introduced to a particular county from outside the region, mussels spread locally in lake-rich regions at a rapid rate. Lake-rich areas with higher infestations of zebra mussels supports this premise, including Crow Wing County with 49 zebra mussel-infested waters, Douglas County with 40 infested waters and Otter Tail County with 36 lakes and rivers infested with zebra mussels.

Consequently, used docks and lifts are a serious threat to the transfer of AIS between lakes. The sale of used docks, lifts and other water-related equipment on the secondary (private) market might be the source of a new infestation in a Hubbard County lake.

The latest research suggests that lakeshore equipment (via the secondary market) is a major contributor in lake-to-lake movement of AIS. Every time we see docks and lifts being transported down our highways, especially used equipment, one can wonder if this lift or dock might be coming from a zebra mussel-

infested lake and have a Hubbard County lake as its destination.

If you are purchasing a used dock or lift, Hubbard Coalition of Lake Associations (COLA) urges lakeshore property owner to take a pledge to never put items into a Hubbard County Lake that has been in another body of water without keeping it out of the water for the 21-day drying period, as required by law, or better yet, storing your equipment over the winter before you put it into your lake.

If you have a used dock or lift coming to your property on a Hubbard County lake, we encourage you to "take the pledge" to protect our lakes from AIS. Lakeshore owners should carefully check all water-related equipment for AIS before selling it and buyers should inspect newly purchased equipment at the time of purchase.

Lake associations are encouraged to promote good AIS relationships among your lake neighbors. Everyone is responsible for protecting Minnesota's water legacy and everyone should promote a clear, consistent, positive message to lakeshore residents about the threat that docks and lifts coming from infested waters can impose on our

clean lakes.

With the exception of two recent infestations in Hubbard County, Bad Axe Lake (Eurasian water milfoil) and Garfield Lake (zebra mussel larvae), we have been successful in shielding our lakes from AIS.

MAISRC research tells us that, while AIS prevention works, to be successful in shielding our lakes from AIS in Hubbard County, our efforts must be targeted to include a broader focus on all the various transport pathways for the spread of AIS.

Members of the Hubbard County Coalition of Lake Associations write a monthly column in the Enterprise addressing water issues in the region.