



LITTLE RIVER BAND OF OTTAWA INDIANS
NATURAL RESOURCES DEPARTMENT
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October 26, 2023

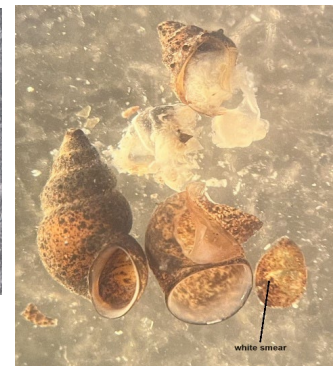
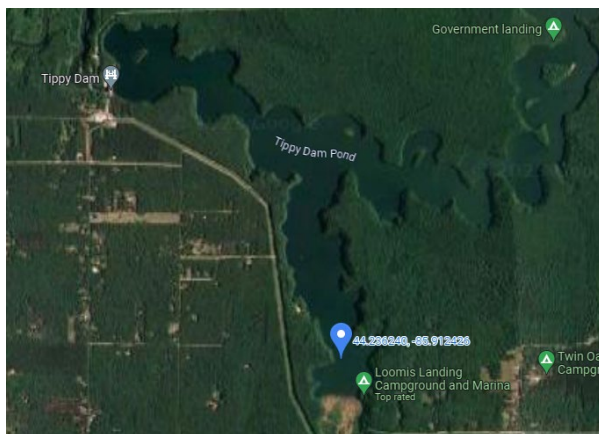
New Zealand Mudsnail

(*Potamopyrgus ant podarum*)

Detected in Tippy Dam Pond

On September 13, 2023, our routine macroinvertebrate sampling detected six New Zealand mudsnail individuals in the Pine River arm of Tippy Dam Pond near the river mouth. No individuals were collected in the Manistee Arm or closer to the Dam. Several of the collected individuals are pictured below. The map indicates where the individuals were collected. Samples were analyzed and identification confirmed by Dr. Mike Cole with Cole Ecological Inc.

A number of empty mudsnail shells were collected during the May 15, 2023 sampling but no organisms were inside the shell. This is the first indication of the New Zealand mudsnail in Tippy Dam Pond since one individual organism was detected in May 5, 2017 in the same location.
<https://nas.er.usgs.gov/queries/SpecimenViewer.aspx?SpecimenID=1715093>



Local Concern (From Michigan.gov): This mudsnail reproduces by cloning, which means females develop complete embryos without fertilization. In a matter of one year, a single female could result in a colony of 40 million snails. When large colonies of mudsnails are present, food for other stream invertebrate populations can become scarce. Fish that feed on native invertebrates like mayflies and caddisflies may find it more challenging to forage in rivers invaded by New Zealand mudsnails. Fish will consume New Zealand mudsnails, but due to the snail's thick shell, equipped with a tightly closing "hatch" called the operculum, they are difficult for fish to digest, offer the fish little nutritional value, and can be excreted alive. Substituting mudsnails for native food sources can reduce the growth, condition, and ultimately the abundance of key sport fish, including trout.

Invasive Species Alert

New Zealand Mudsnail

(*Potamopyrgus antipodarum*)

Detected in Michigan

Identification:

- Average of 1/8 inch long
- 5-6 whorls on shell
- Shells vary from light brown to black
- Difficult to identify



Habitat: New Zealand mud snails can tolerate a wide variety of habitats, including reservoirs, estuaries, rivers, and lakes. They are most prolific in water bodies with a constant temperature and flow, but are highly adaptable.

Diet: Diet consists of diatoms, detritus, and plant and animal matter attached to submerged debris.



Native Range: New Zealand

Local Concern: While mudsnails are able to reproduce sexually, it is not always necessary. Populations in the U.S. are made up almost entirely of self-cloning parthenogenetic females. In a matter of one year, a single female could result in a colony of 40 million snails. They

hold no nutritional value for native fishes, so populations in the U.S. do not fall subject to predation.

U.S. Distribution: Western United States, Great Lakes, and the Chesapeake Bay

Means of Introduction: Possibly via ballast water of transoceanic vessels or game fish imports

Report this species to Seth Herbst, MDNR, at herbsts1@michigan.gov or 517-284-5841 or at www.misin.msu.edu or download the MISIN app to your smartphone