

Spiny waterflea

Bythotrephes longimanus

Like most invasive species found in this region, the spiny waterflea is thought to have been introduced to the Great Lakes by ballast water in the 1980s. This zooplankton is originally native to Europe and Asia. The spiny waterflea is generally spread from ropes or lines that spend long periods of time in the water travelling from one lake to another without treatment. An even greater threat—the resting egg, the earliest life stage of the spiny waterflea, can be spread when mud and water are transferred between waterbodies. These resting eggs can survive long periods out of water before reestablishing in another lake.

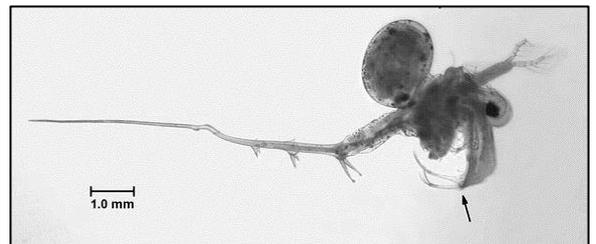
The spiny waterflea typically prefers deep, cold, oligotrophic (low-nutrient) lakes. However, they have been known to establish in rivers and shallow lakes. Their diet consists of smaller zooplankton and phytoplankton (algae). The spiny waterflea is an efficient competitor. Not only do they deplete important food sources for small fish, they can even drive certain species into extinction. Their spines are an excellent defense to predators therefore they are a poor food source for some smaller fish. Fish with larger mouth openings like walleye, salmon, and perch can use the spiny waterflea as a source of nutrition.

There are no known infestations of spiny waterfleas in Carlton County. Nearby lakes with spiny waterflea include many lakes in the Boundary Water Canoe Area, Lake Superior, Island Lake Reservoir (St. Louis Co.), Fish Lake (St. Louis Co.), Lake Mille Lacs, and the St. Louis River (downstream of the Cloquet River).



Identification

Adult spiny waterfleas range from 1/4 to 5/8 inches long. They are typically found in gelatinous masses on fishing line, anchor ropes, or similar materials left in the water for long periods of time.

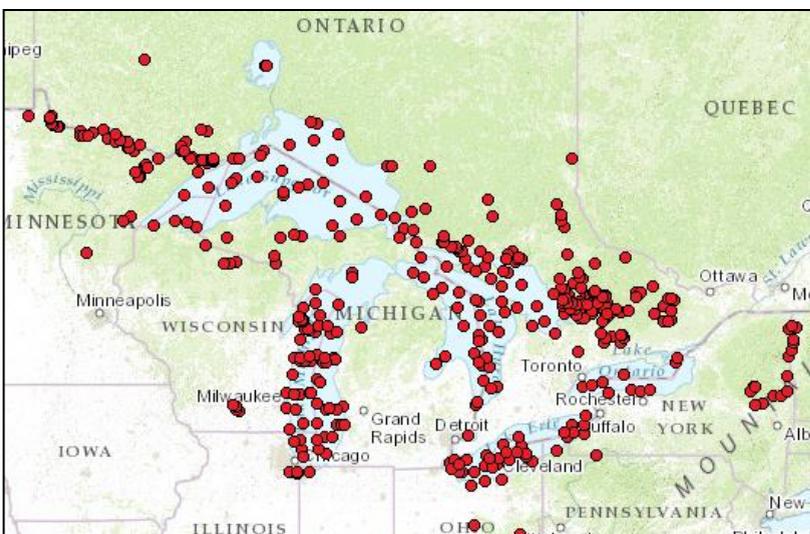


Impacts

- Can drive small zooplankton and phytoplankton into extinction (important food sources for bugs and fish in the lake)
- Clog eyelets of fishing poles

Treatment

There are very few treatment methods once the spiny waterflea has been established. Sometimes larger fish (with large enough mouths to consume the spine) can be introduced to encourage predation. Researchers at the University of Minnesota Duluth have been studying the habits of the spiny waterflea more closely in order to determine possible treatment methods. To decontaminate ropes and lines with spiny waterfleas, place the material in 110 degree F water for 10 minutes.



Locations of spiny waterflea infestations in the Midwest