

Bloody Red Shrimp

Hemimysis anomala

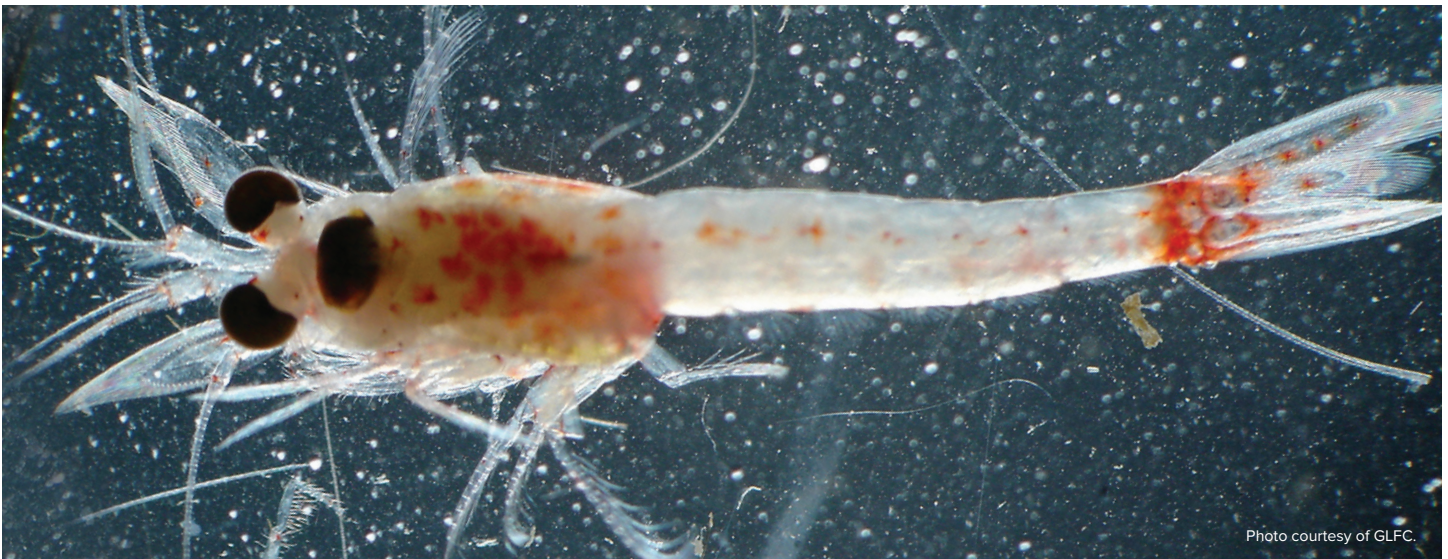


Photo courtesy of GLFC.

The Bloody Red Shrimp (*Hemimysis anomala*) is a tiny freshwater crustacean in the order Mysidacea; more commonly referred to as mysids. Mysids are also sometimes called opossum shrimp because females typically carry their eggs in a pouch.

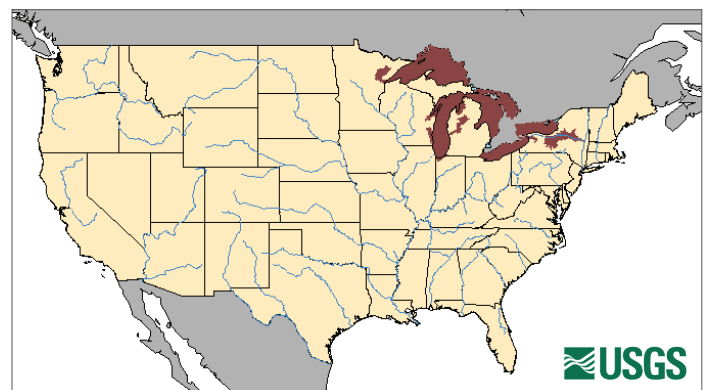
Species Description

The Bloody Red Shrimp is small, with males reaching only 8-10 mm and females reaching 11-16 mm. It has large stalked eyes and eight pairs of legs. It is typically red to orange in color due to pigmented cells called chromatophores; however, coloration can be highly variable and change with varying light and temperature conditions. Some individuals lack color completely and are ivory or translucent.

Without a microscope, the best way to distinguish the Bloody Red Shrimp from other shrimp is by counting legs — it has eight pairs of legs, while most other larger shrimps and decapods have five pairs. With magnification, the Bloody Red Shrimp has a distinctive flat-ended tail with two prominent spikes.

Native & Introduced Ranges

Native to the Ponto-Caspian region of Eastern Europe, the Bloody Red Shrimp was first reported in the United States in 2006 in Muskegon Lake, which is connected to Lake Michigan. Since then, its distribution has been tracked throughout the Great Lakes with populations in lakes Michigan, Huron, Ontario, and Erie. In Pennsylvania, populations have been found in Lake Erie, near Presque Isle Bay.



Biology & Spread

The Bloody Red Shrimp was most likely introduced into the Great Lakes through ballast water discharges from ocean-going ships.

Once this shrimp was introduced to the Great Lakes, subsequent spread to inter-basin areas occurred through bait bucket transfers, hitchhiking in live wells, bilges, boat motors, trailers, hulls, or other equipment used in the water.

Habitat

During the day, reddish swarms of the Bloody Red Shrimp can be seen aggregating in the shadowy areas of piers, boats, breakwalls, or rocky crevices. It prefers hard bottom surfaces including rocks and shells and will avoid soft bottoms, vegetation, and sunlight.

At night swarms disperse into deeper waters but may be detected by shining a bright light on the water.

Impacts

Threat to Biodiversity

Because of its history of invading canals, streams, lakes, and reservoirs throughout Europe, the Bloody Red Shrimp is considered a high risk for invading inland lakes in the Great Lakes region. Since this omnivore eats a variety of smaller animals including water fleas and algae, it is in direct competition with other aquatic organisms including young fish. However, it may be a potential food source for larger planktivorous fish. There is little or no evidence to support that the Bloody Red Shrimp has significant socio-economic impact or benefit in the Great Lakes.



Photo courtesy of NOAA GLERL.

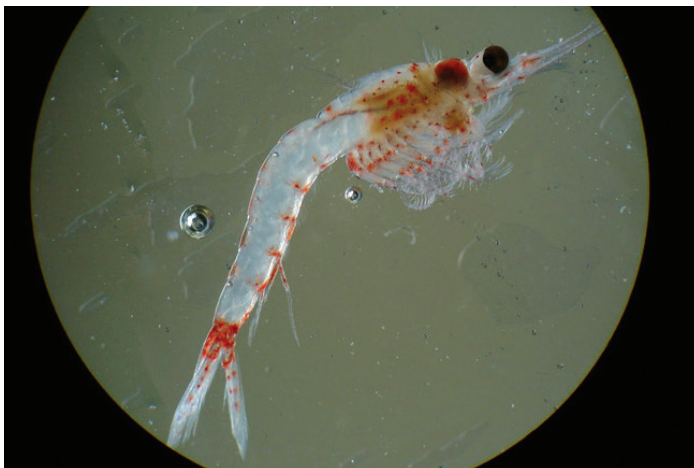


Photo courtesy of Steve Pothoven, NOAA.

Prevention & Control

Preventing the introduction and spread of the Bloody Red Shrimp is the best way to protect habitats from harm.

- Know how to identify and report the Bloody Red Shrimp.
- Always check for and remove plants, mud, and debris from boats, trailers, clothing, and equipment before entering a water body and before leaving a water body.
- Drain all water from bait buckets, bilges, and livewells before transporting to new areas.
- Clean all gear and equipment with hot water (140°F or 40° C) or salt water, OR let boats and equipment dry thoroughly for at least five days before entering a new water body.

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References:

NOAA Great Lakes Environmental Research Laboratory. 2007. Bloody Red Shrimp (*Hemimysis anomala*). Fact Sheet.

Reid, D.F., Sturtevant, R., and Pothoven, S. 2007. Calling on the Public: Where in the Great Lakes is the Newest Aquatic Invader, *Hemimysis anomala*? Aquatic Invaders Digest of National Aquatic Nuisance Species Clearinghouse. 18 (1): 1-7.

Support provided by



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