

Impact of Foreign Species:

Zebra Mussel



Zebra mussels are a type of mollusk, which also include a wide variety of organisms such as squids, octopuses, snails, oysters, scallops, and clams. They are native to freshwater rivers and lakes in Eastern Europe and western Asia. In 1769, Pallas first described populations of this species from the Caspian Sea and Ural River in Russia. They were first discovered in Lake St. Clair in 1988.

Where are they?

Zebra mussel spread rapidly throughout the Great Lakes region and in the large navigable rivers of the eastern Mississippi drainage including the Mississippi, Tennessee, Cumberland, Ohio, Arkansas, and Illinois Rivers. They can also be found in the Hudson River on the Atlantic Slope. Barge traffic in these large rivers helped to disperse zebra mussel their first few years here. Since then, dispersal has been mostly into small lakes within the Great lakes region. Currently, there are more than two hundred and thirty lakes that have zebra mussels. Much of this recent dispersal can probably be attributed to recreational activities such as boating and fishing.

What impact are they having on the ecosystem?

One of the most well documented impacts is on our native mussels. Zebra mussels are anchoring themselves by the thousands to native mussels making it impossible for the native mussel to function. As many as 10,000 zebra mussels have attached to a single native mussel. Our natives have all but disappeared in Lake St. Clair and the western basin of Lake Erie. Zebra mussels also are filtering the Great Lakes at an amazing rate, making the lake very clear. Most people assume that this increased visibility in the water must mean the water is "cleaner". Not true. All they have done is filter out all the algae which normally would be food for native microscopic organisms. Zebra mussels do not have many natural predators in North America. But, it has been documented that several species of fish and diving ducks have been known to eat them.

How can the spread be prevented?

The USGS focus is to document the zebra mussel's geographic distribution and to learn as much as possible about its behavior and biology. The resulting information is considered critical in helping to develop strategies aimed at containing or controlling its spread. Meanwhile, catching and transporting for use as bait, food, or aquarium pets is highly discouraged. We do encourage good boat hygiene, that is, wash your boat off with warm, soapy water if possible. Do not transport water from live wells and bait buckets from one water body to another. Empty them onto land when possible and dispose of leftover bait in the trash. Most often the bait fish are non-indigenous to that water just as much as the zebra mussels.