

ZEBRA MUSSEL

Dreissena polymorpha



Aquatic Invasive Species: Control and Prevention

Aquatic Invasive Species (AIS) impede recreation, degrade water quality, and, once established, are very difficult to control. There currently are invasive plants, invertebrates, mollusks, and fish in Lake Tahoe. Partner organizations around the lake have been implementing preventative measures to ensure that additional AIS are not introduced. Species of the highest concern that are not currently present in the Tahoe Basin include Zebra mussels, Quagga mussels, and New Zealand mudsnails. A diverse group of dedicated partner agencies, including the TahoeRCD, University of Nevada-Reno, University of California-Davis, and the Tahoe Regional Planning Agency, have collaborated to prevent, monitor, and control AIS in Lake Tahoe.

How could Zebra mussels get here?

NOT CURRENTLY IN LAKE TAHOE. Zebra mussels were first introduced to the U.S. in the Great Lakes in 1988. Mussels spread throughout eastern waterways, and were found in the San Justo Reservoir in San Benito County in January 2008. Boats are the main mode of transport for zebra mussels; mussels attach to boat hulls, and veligers (mussel larvae) live in standing water left in boats.



Photo credit: M. McCormick, GLERL NOAA

Origin: Black, Caspian, and Azov Seas

Means of Introduction: Attach to hard substrates (can survive out of water for up to a week) and are spread by human-activity

Habitat: Hard substrate from 10 to 200 feet (4 to 60 m)

Spread: Rapidly reproduce

Characteristics: Small shellfish with striped patterns on shells; vary in color; flattened underside

Size: Typically ¼ to 1½ inches (5-40 mm)

Food: Filter particles suspended in water including bacteria, algae, and detritus

Why is it a threat to the Tahoe Basin?

- ⊗ Consume significant amounts of phytoplankton, thereby competing with native species
- ⊗ Can cause extensive economic damage by colonizing on hulls of boats and submerged surfaces (e.g. water intakes)
- ⊗ Impacts aesthetic and recreational values of beaches

Current Management

Preventative programs and monitoring are being utilized in Lake Tahoe to prevent the invasion of zebra mussels.

ONCE ESTABLISHED, CANNOT BE ERADICATED

Prevention: The lake-wide watercraft inspection program, coordinated by TRCD and TRPA, is an effort to ensure that zebra mussels are not introduced to Lake Tahoe.

Monitoring: Veliger (mussel larvae) monitoring is taking place in Lake Tahoe to confirm that zebra mussels are not present in Lake Tahoe.



Photo credit: U.S. Geological Survey