



Distinguishing Zebra and Quagga Mussels From Other Organisms*



*This information was adapted from the California Department of Water Resources *Zebra/Quagga Mussel Surface Survey Protocol*.

Zebra/Quagga Mussels

The zebra mussel, *Dreissena polymorpha*, and the quagga mussel, *Dreissena bugensis*, look very similar to each other. They commonly have alternating light and dark brown stripes, but can also be solid light brown or dark brown. They have two smooth shells that are shaped like the letter "D". These mussels can range in size from very small (under ¼-inch long) to approximately two inches in length. These mussels attach to hard surfaces such as pipes, screens, rock, logs, boats, ropes, etc., with fibrous threads protruding from the straight edge of their shells.

Quagga Mussel <i>Dreissena bugensis</i>	Zebra Mussel <i>Dreissena polymorpha</i>
	
<ul style="list-style-type: none">• Shell: D-shaped and triangular; thin, fragile; smooth or shallowly ridged; solid light to dark brown or dark concentric rings; paler near hinge• Attaches to hard and soft surfaces	<ul style="list-style-type: none">• Shell: D-shaped and triangular; thin, fragile; smooth or shallowly ridged; solid light to dark brown or striped• Attaches to hard surfaces



Color variation in zebra and quagga mussels

Organisms Mistaken for Zebra/Quagga Mussels

Asian clam, *Corbicula fluminea*

The Asian clam is widespread and abundant in California. It is brown and has deep concentric ridges on its shells. The shells of older or dead clams are often white at the hinge (where the two shells join together). These clams do not attach to surfaces, but live in mud or sand.



Asian clam

Freshwater Snails

Small aquatic snails cling to hard substrates and can be mistaken for mussels. They are similar in color and size to small zebra and quagga mussels. Snails have a single, spiral shaped shell. Because snails are only clinging to surfaces (versus permanently attach), they can be slid across a smooth surface with a gentle push.



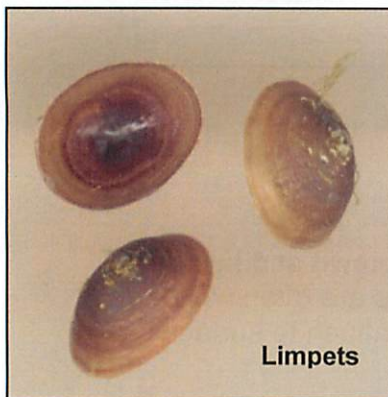
Snail



Snails

Freshwater Limpets

Freshwater limpets also cling to hard substrates and can be mistaken for mussels. Limpets have one shell and are flat. Zebra and quagga mussels attach at the edge of their shell and stick up and away from the surface, while limpet shells lay flush with the surface. Limpets, like snails, only cling to surfaces (versus permanently attach), and can be slid across a smooth surface with a gentle push.



Limpets

For more information
Hotline – 866-440-9530
<http://www.dfg.ca.gov/quaggamussel/>