

DREISSENID MUSSELS & OTHER AIS

Craig McLane, FWP



Aquatic Invasive Species

Invasive species and where to find them

Craig McLane

Early Detection & Monitoring Coordinator

MT Fish, Wildlife & Parks

11/14/2024



Meet some of the team – They are happy not to help (some are working remotely in other states)



Two's a Party



Zebra mussel

Dreissena polymorpha

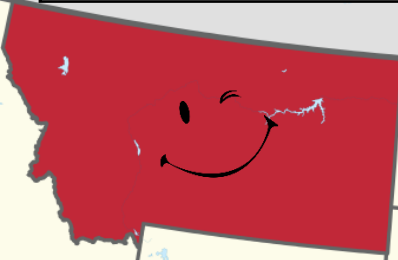


Quagga mussel

Dreissena bugensis



Newest Dreissenid Neighbors

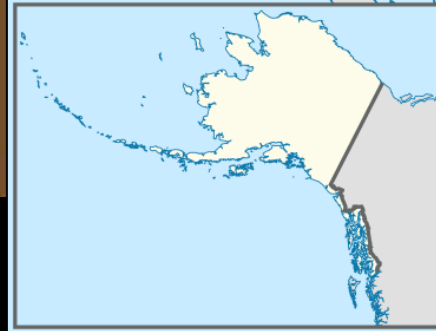


Quagga Mussels – 2023
Snake River @ Twin Falls, ID

Zebra Mussels – 2023
Lake Oahe, SD

Zebra Mussels – 2022
Pactola Reservoir, SD

Zebra Mussels – 2023/2024
Highline Reservoir/Colorado River, CO



Three's a Crowd

Enters:

Golden mussel - *Limnoperna fortunei*



Eduardo Tarnowski Siemionko

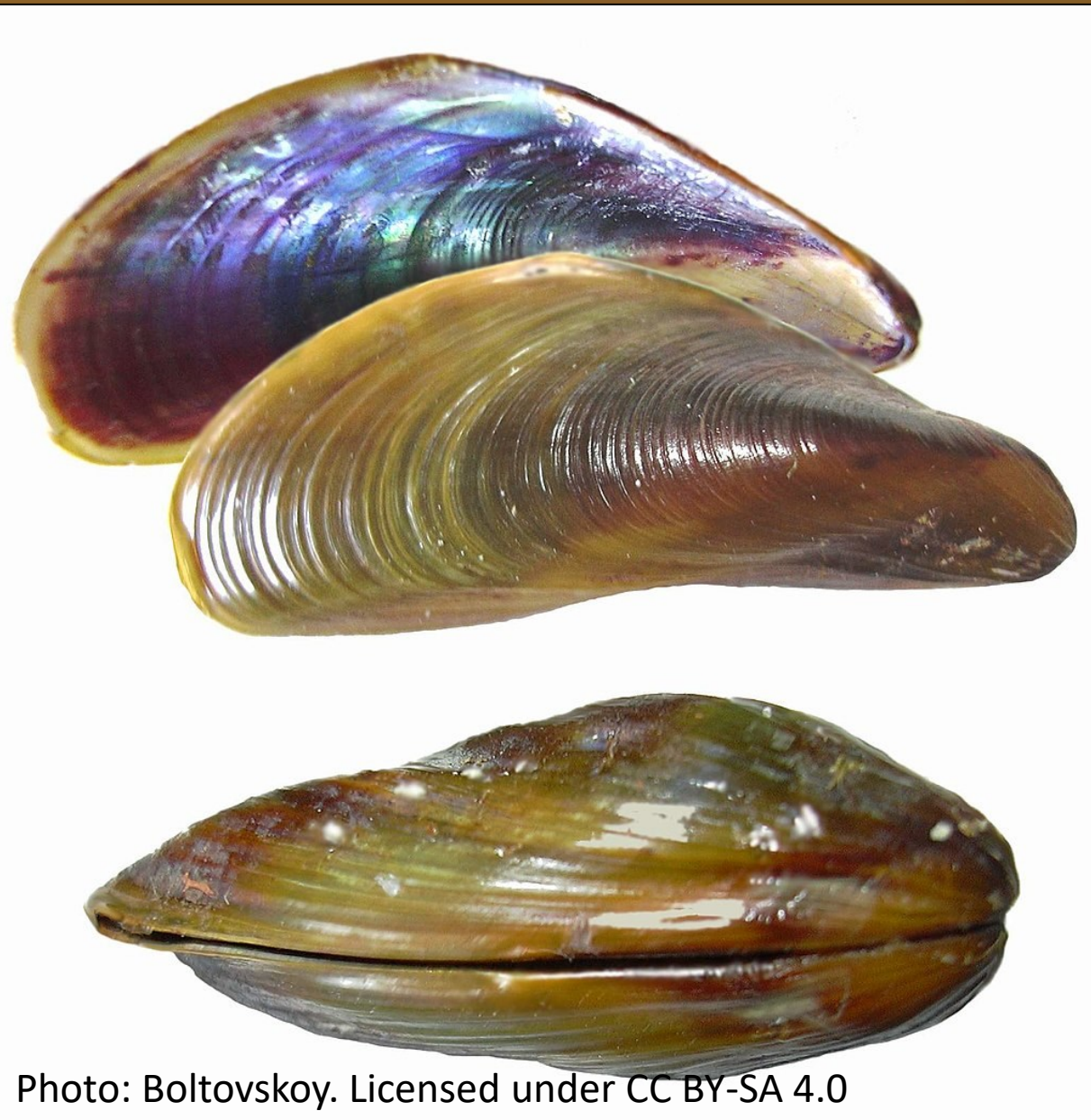



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New Neighbor in Town



Golden Mussel
San Joaquin Valley, CA

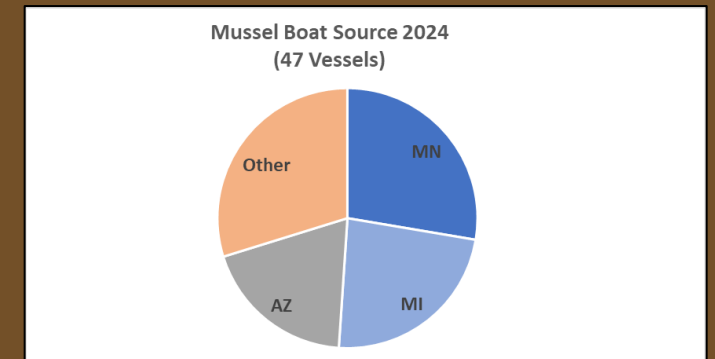
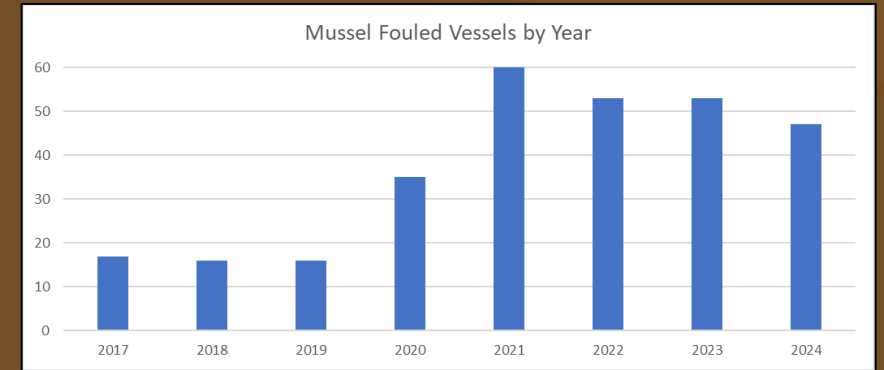
Similar to Dreissena but more tolerant and faster filterer

- Ecosystem engineer
- 20-30 mm length
- 8-32 degree C
- 5.8-9.3 pH
- Can handle brackish/estuarine
- Higher resistance to anoxia, pollution, pH, high temperatures
- Longer reproduction periods
- Lower calcium requirements
- Attaches with byssal threads
- Could displace zebra mussels



Prevention – Watercraft Inspection Efforts

- 126,000 vessels inspected
- 47 mussel fouled vessels
- 600 vessels with aquatic plants



Early Detection Efforts

- Over 350 waters samples for all taxa
- 3,527 microscopy plankton samples collected
 - FWP and Partners
 - 72% processed
 - No mussel detections to date
- 215 eDNA samples

