NWCG Equipment Technology Committee

Equipment Bulletin: 25-004

July 24, 2025

To: Complex Incident Management Teams (CIMTs), Resource Advisors (READs)

From: Nate Hesse, Chair, NWCG Equipment Technology Committee

Subject: NEW Aquatic Invasive Species – Golden Mussels

Issue: Golden mussels, an invasive bivalve, are highly efficient filter feeders and form dense colonies. They consume large quantities of aquatic plants and animals that native species and sport fish depend on. Their colonization of surfaces impedes water flow, clogs pipes, and fouls watercraft motors, and necessitates ongoing, costly removal to maintain operational function. This results in economic impacts to water conveyances, energy production, recreation, agriculture, and ultimately the public. Adult mussels spawn multiple times each year and have the potential to produce thousands of planktonic offspring.

Golden mussels are not restricted to hard surfaces and have been found colonizing soft substrates and attached to aquatic plants. They can easily be transported to new waters on fire equipment if equipment is not properly decontaminated.

Action:

- 1. Use the same decontamination process as for Zebra or Quagga mussels: www.nwcg.gov/publications/pms444.
- 2. Contact Lead READ with photos and location information as soon as possible if sighting occurs. Take clear, close-up photos that include something (such as a pencil or hand) to show size.
- 3. Within California: Lead READs will report sightings to the CDFW Invasive Species Program at https://arcg.is/10D4G8, invasives@wildlife.ca.gov, or (866) 440-9530.

Outside of California: Lead READs should report sightings to the local extension office or Fish and Wildlife Department.

Background: In October 2024 golden mussel (*Limnoperna fortunei*) were discovered in North America for the first time in the Sacramento - San Joaquin Delta and O'Neill Forebay (Merced County) in California. Golden mussel ranges in color from dark brown to gold, and can reach up to 1 ³/₄ inches long. Golden mussel can inhabit fresh and brackish-water lakes, rivers, creeks, wetlands, bays, and canals

A marian Golden Mussel (Limnoperna fortunei) Zebra Mussel (Dreissena polymorpha) Quagga Mussel (Dreissena bugensis) Figure 1 Comparison of invasive mussel species. Photo credit: https://www.ruthlakecsd.org/sidebar/

golden-zebra-quagga-mussel/

with water temperatures ranging from 41-95°F, and can survive fluctuations of higher salinities. They attach to a wide variety of substrates, both constructed and natural, and at various water depths.

Contact: Karen Stockmann, Invasive Species Subcommittee Chair, karen.stockmann@usda.gov, 406-273-8014

NWCG standards are interagency by design; however, the decision to adopt and utilize them is made independently by the individual member agencies and communicated through their respective directives systems.