

Golden Mussel (*Limnoperna fortunei*)

Pest Fact Sheet



Introduction: Golden Mussel is significant threat to California freshwater. It was found by California Department of Waterways personnel at the Port of Stockton (San Joaquin County) in October 2024. It was subsequently found at the San Luis Reservoir (Merced County) in October 2024.

Distribution: Native to southeastern Asia and it has since been introduced into Japan, Argentina, Bolivia, Brazil, and Paraguay (USFWS).

Description: A relatively small mussel (10–20mm length) that lives in fresh water. The outer surface of the shell is generally light brown and lacks darkened bands like those found in Zebra and Quagga mussels (*Dreissena spp.*). The inner surface of the shell lacks a tooth at the anterior apophysis like that seen in False Dark Mussel (*Mytilopsis leucophaeta*). In most individuals, there is a distinctly lighter yellowish area along the underside of the shell, both internally and externally. The inner surface of the shell is usually dark with purple reflections above and pale below.

Biology: A freshwater mussel that lives for 2–5 years depending on location (CABI). Sexual maturity is reached after one year, when they spawn and develop through several free-swimming planktonic stages (CABI). The larvae then settle and attach to a solid substrate such as rock, rooted aquatic plants, boat hulls, water pipes, and even shells of other mussels and oysters (CABI).



External view of Golden Mussel



Internal view of Golden Mussel

4 mm

Economic importance: Golden Mussel poses a significant threat to California waterways and agriculture. Very large populations impact water quality, physically displace native mussels and clams, and change the ecology of a waterbody adversely affecting other aquatic animals and plants. Large encrusting populations can cause fouling of water pipes for water-treatment and irrigation by reducing water flow, blocking filters and overloading pumps (CABI). They can also damage watercraft by obstructing water-cooling systems and water circulation, causing motor overheating (Oliveira *et al.* 2006).

References:

- [CABI] CAB International. 2020. *Limnoperna fortunei* (golden mussel). CABI Invasive Species Compendium. Wallingford, United Kingdom: CAB International. Available: <https://www.cabi.org/isc/datasheet/107775>.
- Oliveira MD, Takeda AM, Barros LF, Barbosa DS, Resende EK. 2006. Invasion by *Limnoperna fortunei* (Dunker, 1857) (Bivalvia, Mytilidae) of the Pantanal wetland, Brazil. *Biological Invasions* 8: 97–104.
- [USFWS] U.S. Fish & Wildlife Service. 2021. Golden Mussel (*Limnoperna fortunei*), Ecological Risk Screening Summary. Washington, DC, USA. Available: https://www.fws.gov/sites/default/files/documents/Ecological-Risk-Screening-Summary-Golden_Mussel.pdf