

## Biodiversity Record: New record of green muscle-mussel, *Musculus viridulus*, in Singapore

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**Subjects:** Green muscle-mussel, *Musculus viridulus* (Mollusca: Bivalvia: Mytilidae).

**Subjects identified by:** Chan Sow-Yan and Lau Wing Lup.

**Location, date and time:** Johor Strait, Changi Beach Park; 9 March 2020; 1718 hrs.

**Habitat:** Estuarine shore. On bio-fouled porcelain shard among rocks during afternoon low tide.

**Observers:** Chan Sow-Yan and Lau Wing Lup.

**Observation:** Five live juveniles (Fig. 1) were found attached, with other marine organisms, to a piece of porcelain shard (Fig. 2). Each shell had strongly radiated ridges at both ends, and its entire surface was concentrically striated and appeared sub-granose. The shells were pale greenish with irregular reddish-brown markings (Figs. 1, 2), and the flesh was yellowish white.

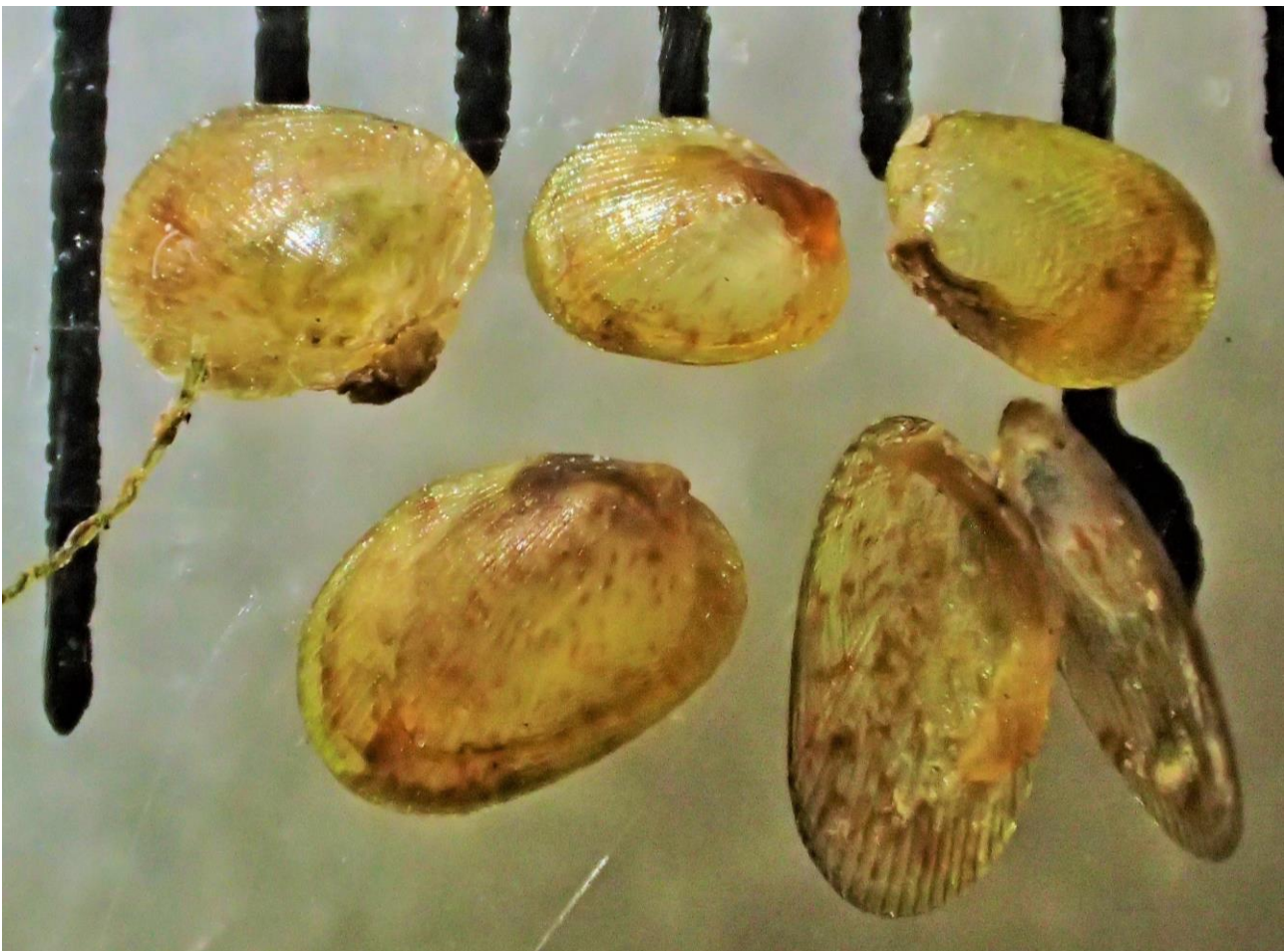


Fig. 1. Juvenile specimens of *Musculus viridulus*. Space between black bars = 1 mm. (Photograph by: Lau Wing Lup).



Fig. 2. In situ image of one of the *Musculus viridulus* (in yellow circle) on the porcelain shard among other fouling organisms. (Photograph by: Lau Wing Lup).

**Remarks:** According to Huber (2010), *Musculus viridulus* grows up to 10 mm in shell length, and is distributed from the Red Sea, across the Indo-west Pacific, to Japan, occurring at depths of 0–70 m. In the Gulf of Thailand, *Musculus viridulus* was found attached to stones, shells, gravel, mud and on spines of the sea urchin, *Slephanocidaris bispinosa* (Lynge, 1909). Although Singapore is well within its natural range, the featured specimens represent a new record for the country (see Chuang, 1973; Tan & Chou, 2000; Tan & Woo, 2010).

**Literature cited:**

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