

Biodiversity Record: The marine snail, *Cantharus cecillei*, in Singapore

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Subjects: *Cantharus cecillei* (Mollusca: Gastropoda: Pisaniidae).

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

Location, date and time: Singapore Island, Changi Beach Park, by the Johor Strait; 1 February 2022, around 1800 hrs.

Habitat: Estuarine shore. On a bio-fouled concrete boulder.

Observer: Lau Wing Lup.

Observation: Three examples were observed. Two live juveniles, each about 27 mm shell height (Figs. 1 & 2), were noted among other living molluscs such as *Gyrineum natator* and *Indothais rufotincta*. A dead juvenile of about 27 mm shell height (Fig. 7) was found at the base of the same boulder among seagrass. Living examples have the following characteristics: periostracum golden brown, thick with bristle-like hairs (Figs. 1–4); flesh yellowish white with grey mottling and blackish lines (Fig. 3); foot yellow (Fig. 4 & 6); proboscis greyish yellow with many black lines (Fig. 4); eye spot black and situated in the middle portion of the tentacle (Fig. 3); operculum yellow, teardrop shaped, corneous, concentric and polygyrous (Fig. 5). The dead shell, devoid of periostracum, is white with brown bands of various shades and widths. Its aperture is generally white with brown markings on the interior of the outer lip (Fig. 7).

Remarks: *Cantharus cecillei* attains a maximum shell height of about 32 mm. It ranges in the Western Pacific from the coasts of China and Japan, south to the Torres Straits in Australia (Tryon, 1881; Wang, 1998), and inhabits intertidal rocky shores down to depths of 30 m (Shi et al., 2005). The species was first recorded in Singapore as *Polia balteata* by Lim (1970), and found mostly on the eastern part, in muddy intertidal habitats. This seems to be the first time specimens of this gastropod from Singapore are depicted in a local publication.

Images of *Cantharus cecillei* shells that the authors found online lack the brown markings on the interior of the outer lip. It is possible that these markings are present only on live and freshly dead specimens, and may have faded over time.

Literature cited:

Lim CF (1970) A Checklist of the Molluscs of Singapore. Department of Zoology, University of Singapore, 46 pp.

Shi H, Huang C, Yu X & Zhu S (2005) An updated scheme of imposex for *Cantharus cecillei* (Gastropoda: Buccinidae) and a new mechanism leading to the sterilization of imposex-affected females. Marine Biology, 146(4): 717–723.

Tryon GW (1881) Manual of Conchology, Structural and Systematic, with Illustrations of the Species. Volume 3. Tritonidae, Fusidae, Buccinidae. Philadelphia, 310 pp., 87 pls.

Wang R (1988) Coloured Illustrations of Aquatic Mollusks of China. Zhejiang Publishing House of Science and Technology, Zhejiang, 255 pp.



Fig. 1. A live *Cantharus cecillei* exposed during low tide on a seaweed covered concrete boulder. Fig. 2. Another live *Cantharus cecillei* in-situ, covered in thick, hairy periostracum. (Photographs by: Lau Wing Lup)

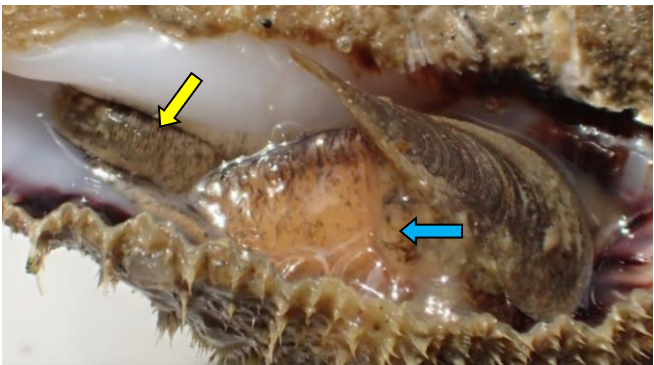


Fig. 3. *Cantharus cecillei* animal emerging from its shell. Note mottled pattern, and eye on tentacle (indicated by arrow). Fig. 4. Retracted animal. Note bristly periostracum, proboscis (yellow arrow), and foot (blue arrow). (Photographs by: Lau Wing Lup)

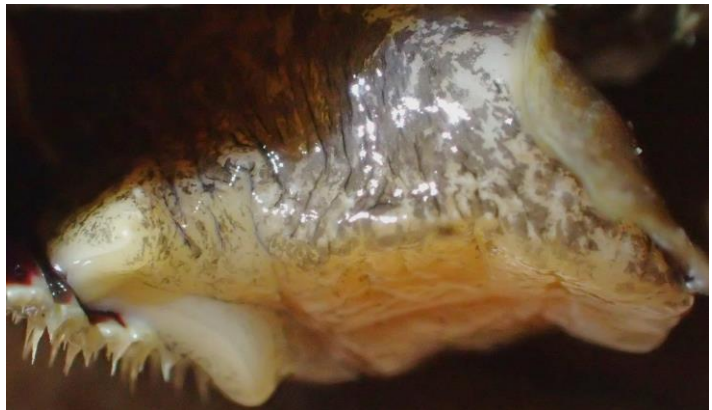
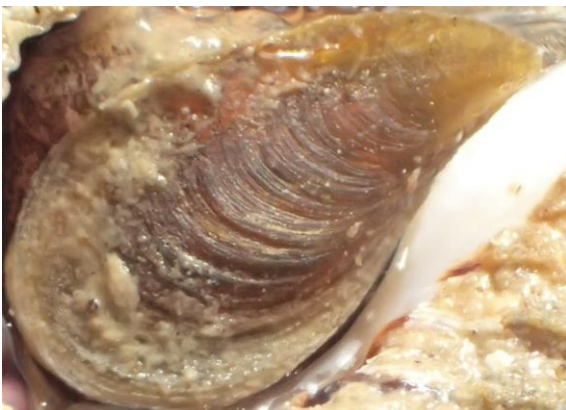


Fig. 5. Operculum of *Cantharus cecillei*. Fig. 6. Ventro-lateral view of the foot showing the grey mottling and black lines on the side, and yellow undersurface. (Photographs by: Lau Wing Lup)

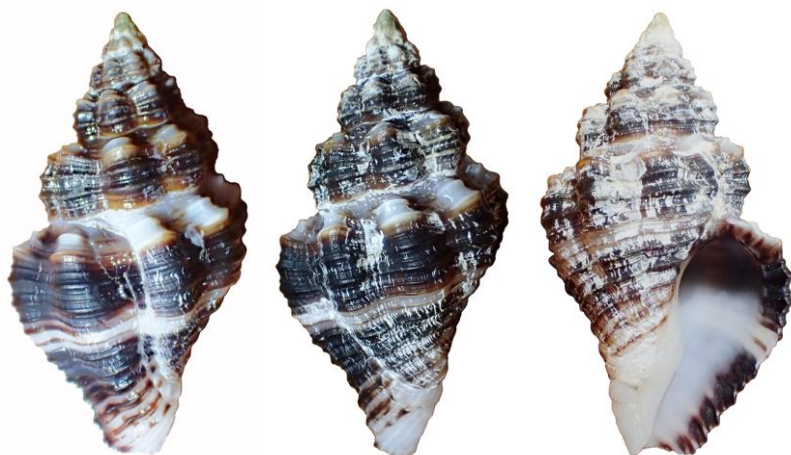


Fig. 7. Dorsal (left), lateral (middle) and apertural (right) views of the dead *Cantharus cecillei* specimen (shell height about 27 mm) without periostracum. (Photographs by: Lau Wing Lup)