

Comparison of juvenile and adult mangrove murex, *Chicoreus capucinus*

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Subjects: Mangrove murex, *Chicoreus capucinus* (Mollusca: Gastropoda: Muricidae).

Subjects identified by: Chan Sow-Yan, Lau Wing Lup and Tan Siong Kiat.

Location, date and time: Singapore Island, Pasir Ris, Sungei Api Api; 7 March 2020, 1826 hrs.

Habitat: Estuarine. In mangroves during afternoon low tide.

Observers: Chan Sow-Yan and Lau Wing Lup.

Observation: Two live juvenile snails of approximately 4 and 3 mm in shell length (Fig. 1-4), were found together in a tidal pool among organic debris such as dead leaves and twigs. The shells were small and well camouflaged, and could not be identified in-situ. After cleaning, the shell sculpture becomes apparent, and they could be identified as juvenile *Chicoreus capucinus*. These recently metamorphosed snails are different in shell shape, sculpture and colour from their adult counterparts (Fig. 5).

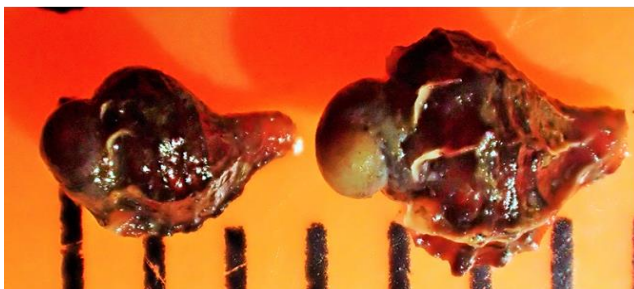


Fig. 1. Dorsal view of juvenile shells when wet.



Fig. 2. Dorsal view of dried juvenile shells. Spaces between black bars on background = 1 mm.



Fig. 3. Apertural view of the juvenile shells.



Fig. 4. Dorso-lateral view of juvenile shells.

Photographs by Lau Wing Lup

Remarks: Although *Chicoreus capucinus* is very common in Singapore's mangroves and is well documented in local literature (Chuang, 1973; Tan & Chou, 2000; Tan & Woo, 2010), juvenile shells are rarely depicted. The juvenile snail has a bulbous spire (Fig. 1-4), while the adult's spire is pointed (Fig. 5). With its multiple frilly ribs, the juvenile snail resembles muricid snails of the genus *Trophon*. These frilly axial ribs are not apparent in adult shells that typically bear three strong varices on each whorl, and their spiral cords are thicker and more prominent (Fig. 5). The shells of wet juveniles are reddish black (Fig. 1), while that of adults are greyish black (Fig. 5). On dry juvenile shells, the aperture is reddish-black, while this is purplish black on an adult shell (Fig. 5). Juvenile shells have thin lips and a short and widely open siphonal canal (Fig. 3). Adult shells have a thickened lip at the terminal varix and a relatively long, nearly closed, siphonal canal (Fig. 5).



Fig. 5. Apertural (top) and side (bottom) views of an adult of about 25 mm shell height. Photographs by Lau Wing Lup

References:

- Chuang SH (1973) Sea shells. In: Chuang SH (ed.), *Animal life and Nature in Singapore*. Singapore University Press, Singapore. Pp. 175–201
- Tan SK & Woo HPM (2010) *A Preliminary Checklist of the Molluscs of Singapore*. Raffles Museum of Biodiversity Research, National University of Singapore. 78 pp.
- Tan KS & Chou LM (2000) *A Guide to the Common Seashells of Singapore*. Singapore Science Centre. 168 pp.