

Biodiversity Record: Ear-snails, *Melampus sincaporensis*, at East Coast Park

Chan Sow-Yan* & Lau Wing Lup

Email: chansowyan@gmail.com (*corresponding author), suiseki1984@yahoo.com.sg (Lau)

Recommended citation. Chan S-Y & Lau WL (2024) Biodiversity Record: Ear-snails, *Melampus sincaporensis*, at East Coast Park. Nature in Singapore, 17: e2024129. DOI: 10.26107/NIS-2024-0129

Subjects: Singapore ear-snails, *Melampus sincaporensis* (Mollusca: Gastropoda: Ellobiidae).

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

Location, date and time: Singapore Island, East Coast Park, Area B; 21 August 2024, around 1026 hrs.

Habitat: Coastal urban parkland. Under a patch of grass, and on concrete vertical walls of a monsoon drain with brackish water. All above high tide line.

Observer: Lau Wing Lup.

Observation: Nine live snails were found, the largest around 14 mm in shell height. Some were in a depression among a patch of grass on the ground (Fig. 1), four were roosting on the vertical concrete wall of a monsoon drain (Fig. 2).



Fig. 1. A few ear-snails grazing within a depression on the ground amongst grass patch. A. View of the depression. B. Two of the snails with different shell markings. C. Juvenile example of 7.5 mm in shell height (Photographs by: Lau Wing Lup).



Fig. 2. The four ear-snails found aestivating on the wall of a drain. Note differences in shell morphology and markings. A. Two with relatively uniform shell colouration. B & C. Third and fourth examples with distinct bands (Photographs by: Lau Wing Lup).

The shells (see Figs. 5–10) bear the following features: solid and slightly shiny; oblong-oval, attenuated at both ends and in varying degrees of erosion; spire short and appears wrinkled with riblets; colour varies from pale yellow-brown to dark reddish-brown with darker brown spiral bands; top and middle parts of aperture narrowed by oblique columellar fold, a parietalis in lower third of parietal wall, above these one to five smaller teeth which may partly fuse into a callus; two to four palatal teeth with a whitish pliciform callosity deeper inside on palatal wall; lower portion of aperture wider

than top portion; umbilicus small, partially open and surrounded by spiral striations that decrease in intensity on the upper whorl; peristome thin. The sole juvenile in this record has broad reddish-brown bands (Figs. 1C & 3).

The foot of the snails varies from yellowish white to greyish black (Figs. 3 & 4). The black eye spots are situated at the base of the tentacles that can appear greyish white to blackish brown under different lighting. There is a small band at the base of the tentacle that is a lighter shade of yellowish white to bluish grey than the rest of the tentacle (Fig. 4).

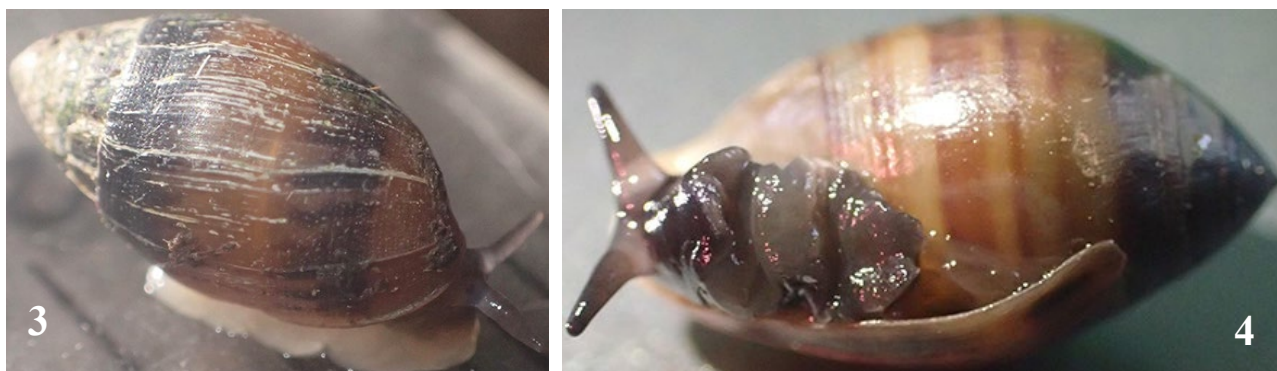


Fig. 3. Dorsal view of juvenile snail (7.5 mm shell height) with its foot and tentacles extended. Fig. 4. Apertural view of a banded specimen with tentacles and foot exposed. Note pale band at the base of the tentacle (Photographs by: Lau Wing Lup).

Variations noted on the nine specimens include 1) unusual axial, dotted, flame like, intermittent and tessellate bands on the shells (Fig. 5), 2) excessive growth lines forming ribbed like sculpture (Fig. 6), 3) dwarf adult form (Fig. 7), 4) highly eroded shell (Fig. 8), and 5) fewer teeth on palatal side (Fig. 9).



Fig. 5. Dorsal view of a specimen with tessellate pattern on the last whorl. Fig. 6. Dorso-lateral view of an aberrant shell with axial bands and excessive growth lines forming ribs near the umbilical area. Fig. 7. Dorso-lateral view of a dwarf form adult (about 8 mm shell height). Fig. 8. Abapertural view of a highly eroded shell. Fig. 9. Apertural view of an aberrant adult shell with only two teeth on the palatal side (about 11 mm shell height) (Photographs by: Lau Wing Lup).

Remarks: Despite seeming like a mis-spelling of the type locality, *Melampus sincaporensis* is the spelling assigned to the species in the original description (Pfeiffer, 1855). *Melampus sincaporensis* is an estuarine snail that is distributed in the tropical Indo-west Pacific from Bombay eastwards to New Caledonia (Vermeulen & Whitten, 1998 as *Melampus siamensis*). In Singapore, *Melampus sincaporensis* has been recorded at the Sungei Buloh Wetland Reserve, on small, damp grassy area bordered by the mangrove fern *Acrostichum* (see Raven & Vermeulen, 2007), and on the mud of back mangroves at Sungei Tampines (personal observations). The discovery of this species roosting exposed on the walls of a concrete drain thus seems unusual. This could also be the first time that a live juvenile specimen and multiple variations of *Melampus sincaporensis* are depicted.

Literature cited:

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