

Biodiversity Record: New Singapore record of the assiminiid snail, *Taiwanassiminea javana*

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Subjects: Javan assiminiid snail, *Taiwanassiminea javana* (Mollusca: Gastropoda: Assimineidae).

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

Locations, date and time: Two locations on Singapore Island —
1) Marsiling Park mangroves; 9 December 2022; around 1109 hrs.
2) East Coast Park Area B; 21 May 2017; afternoon.

Habitat: Estuarine. Mangrove creek during high tide (Fig. 1) at Marsiling Park. Concrete monsoon drain in urban parkland (Fig. 3) at East Coast Park.

Observers: Lau Wing Lup and Chan Sow-Yan.

Observations: At Marsiling Park, a live specimen of 6 mm shell height, was found exposed on damp leaf litter at the water's edge (Figs. 2, 5–8). The snail was moving in a sluggish manner, upwards and away from the rising water. At East Coast park, a live specimen, also around 6 mm shell height, was spotted on a dead leaf in a monsoon drain during low tide (Fig. 4).

Both shells small, high-conical with pointed apex, weathered surfaces, and chestnut brown to dark grey (depending on lighting conditions). Shell microsculpture consists of growth lines crossed by feeble spiral striations. Shell has about seven flattish regularly increasing whorls divided by a shallow suture (Figs. 6–8). Shell aperture tear-drop shape (Fig. 8). Peristome sharp and attached to a distinct parietal callus. Columella curved and thickened. Operculum thin, yellowish, corneous, paucispiral, with an eccentric nucleus (Fig. 8). Snail foot large, wide, bi-lobed and dirty yellow. Tentacles dark grey, orange at tip around eyes. Snout blackish. Inner flesh pale grey (Figs. 4 & 5).

Remarks: *Taiwanassiminea javana* is herein regarded as a new record for Singapore (see Tan & Woo, 2010; Tan et al., 2012). Photographs of the living snail are probably depicted for the first time in a publication. *Taiwanassiminea javana* was described from Tjipinang, in West Java, Indonesia by Thiele (1927 as *Paludinella javana*). It occurs in other parts of Java, as well as Sumatra, Nias and Thailand (Bentham-Jutting, 1956 as *Syncera javana*; Brandt, 1974 as *Assiminea [Eussoia] javana*). This semi-terrestrial snail inhabits muddy ditches or muddy sand along the coast. The position and presence of spiral cords are a variable feature, depending on the snail growth (Bentham-Jutting, 1956) and possibly environmental factors such as acidity levels (personal observations). As Singapore falls within the geographic range of the species, its occurrence there appears to have been previously overlooked. In Singapore, its sympatric congener *Taiwanassiminea bedaliensis* can be distinguished by its smaller stature and presence of spiral stripes on its last whorl, as well as by the colours of the snout, foot, and tentacles (see Chan & Lau, 2021).

Literature cited:

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Fig. 1. Leaf litter at the water's edge at Marsiling Park mangroves where a live *Taiwanassiminea javana* (arrow) was found. Fig. 2. Close-up of the same snail in-situ at Marsiling Park. Fig. 3. Monsoon drain at East Coast Park where a live *Taiwanassiminea javana* was found during low tide. Fig. 4. Dorsal view of the live snail from East Coast Park. Fig. 5. Close-up view of *Taiwanassiminea javana* from Marsiling Park emerging from its shell. Fig. 6. Lateral view of *Taiwanassiminea javana* shell (shell height 6 mm) from Marsiling Park. Fig. 7. Dorso-lateral view of the shell. Fig. 8. Apertural view. (Photographs by: Lau Wing Lup [Figs. 1, 2, 5–8] and Chan Sow-Yan [Figs. 3 & 4]).