

## Biodiversity Record: New record of the Abbott's berry snail, *Sculptassiminea abbotti*, in Singapore

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**Subjects:** Abbott's berry snail, *Sculptassiminea abbotti* (Mollusca: Gastropoda: Assimineidae).

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

**Location, date and time:** Singapore Island, Pasir Ris Park, Sungei Tampines; 29 January 2021; 1638 hrs.

**Habitat:** Estuarine. Back mangroves (Fig. 1).

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

**Observation:** Around seven live individuals were seen grazing on moss growing on mangrove prop roots (Fig. 2) together with the confamilial snail, *Hydrocena cf. pyramis*.

The shell is conical and egg-shaped. Shell colour is variable within the same population, ranging from dirty yellowish brown, orange-brown to reddish brown. The shell is thin and translucent, its aperture is ovate and angulated at the periphery, the peristome is sharp and not flared, its columellar margin is slightly thickened and partially covers the umbilicus. The operculum is thin, transparent, ovate and paucispiral. Adults have 5½ to 6 moderately convex whorls that increase evenly in size and are divided by relatively shallow sutures. Matured shells can reach 2.4 mm in height and 1.4 mm in width. The protoconch is smooth, the second whorl is embellished with fine spiral lines that gradually become thicker spiral cords which are then criss-crossed by strong riblets in the later whorls. The riblets become finer to indistinct at the lower half of the last whorl (Figs. 3 & 5). This shell sculpture allows organic debris and other micro-organisms to be easily attached to the shell, thus providing effective camouflage.

The snail's flesh is marked with black stripes and mottles which are visible through the shell (if it is clean). The foot is bilobed and can vary in colour from light grey, yellowish grey to reddish grey. The rostrum can be bicolored with a combination of orangey red and yellow, or primarily maroon, red or reddish grey. The stout eye stalks can be pale grey, brownish grey, dirty red, or maroon (Figs. 3 & 5).



Fig. 1. Micro habitat (on mangrove roots) of *Sculptassiminea abbotti*. Fig. 2. *Sculptassiminea abbotti* grazing on mangrove tree roots. (Photographs by: Lau Wing Lup)

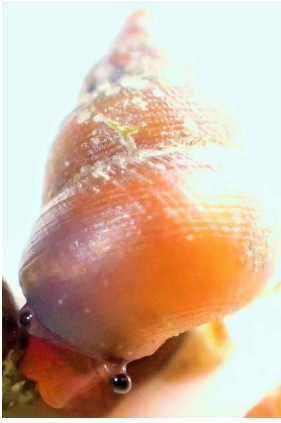


Fig. 3. *Sculptassiminea abbotti*: dorsal (right) and apertural views. (Photographs by: Lau Wing Lup)

Fig. 4. *Sculptassiminea microsculpta*: dorsal (right) and apertural views. (Photographs by: Lau Wing Lup)

**Remarks:** Before the publication of this record, *Sculptassiminea abbotti* was known only from its type locality at Palian in the Trang Province of southern Thailand along the Andaman Sea (Brandt, 1968). It represents a new record of the species in Singapore (see Tan & Woo, 2010), as well as a southward extension of its known range.

*Sculptassiminea abbotti* closely resembles *Sculptassiminea microsculpta* which was recently recorded in Singapore (Chan & Lau, 2019). The former can be distinguished from the latter by its intense colour, slender outline, less convex whorls, shallower sutures, less pronounced, less uniform ribs and presence of strong spiral threads around the umbilicus (see Figs. 4 & 6 for *Sculptassiminea microsculpta*). Both species are locally rather uncommon. The second author has observed that *Sculptassiminea abbotti* and *Sculptassiminea microsculpta* are not sympatric. At Pasir Ris mangroves, he found that *Sculptassiminea abbotti* occurred along Sungei Tampines, while *Sculptassiminea microsculpta* inhabited the Sungei Api Api, even though the mouths of both channels were only about 430 m apart from each other.



Fig. 5. Examples of *Sculptassiminea abbotti*. Note less pronounced and less uniform ribs. (Photograph by: Lau Wing Lup)



Fig. 6. Examples of *Sculptassiminea microsculpta*. Note the uniform and prominent ribs. (Photograph by: Lau Wing Lup)

**Literature cited:**

Brandt R (1968) Description of new nonmarine mollusks from Asia. *Archiv für Molluskenkunde*, 98(5/6): 213–289, pls. 8–10.  
 Chan SY & Lau WL (2019) New Singapore record of the assiminid snail, *Sculptassiminea microsculpta*. *Singapore Biodiversity Records*, 2019: 140.  
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