

Biodiversity Record: Barrel-crown ear-snails, *Cassidula doliolum*, in Singapore

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Subject: Barrel-crown ear-snail, *Cassidula doliolum* (Mollusca: Gastropoda: Ellobiidae).

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

Location, date and time: Singapore Island, Pasir Ris, Sungei Api Api; 25 May 2019; around 0945 hrs.

Habitat: Estuarine channel. On soft mud banks and oyster beds during low tide.

Observers: Chan Sow-Yan and Lau Wing Lup.

Observation: At least 15 examples of about 1 cm in shell height were seen on organic debris, on soft mud, as well as on beds of the leafy oyster, *Isognomon ephippium* (Figs. 1, 2). They appear to be gregarious (Fig. 1), and a few were observed emerging from a hole in the mud. The shell is shaped like a barrel with regular and numerous spiral grooves, and is bluish grey to brownish in colour. Many individuals have up to three yellowish-white bands along the spire. The living animal has a yellowish foot, blackish-brown head (Fig. 2a) and greyish white tentacles, each with a black eye spot at the base (Fig. 2b).



Fig. 1. In situ dorsal view of a group of four *Cassidula doliolum* with an *Austropilula beddomeana* snail (circled in red). (Photograph by: Lau Wing Lup).



Fig. 2. Live *Cassidula doliolum*. a, side view showing the yellowish foot and blackish brown head; b, dorso-lateral view showing the spiral grooves on the shell and greyish white tentacles, each with a black eye spot at its base. (Photographs by: Lau Wing Lup).

Remarks: *Cassidula doliolum* was first recorded in Singapore by Chuang (1973) without illustration or reference material. Although it seems to be common in Singapore (personal observations), it is seldom mentioned, and live animals have hitherto not been illustrated in Singapore malacological literature (see Tan & Chou, 2000; Raven & Vermeulen, 2007; Tan & Woo, 2010; Tan et al., 2012; Sanpanich & Tan, 2016). Growing up to 13 mm in shell height (Pfeiffer, 1857), it is the smallest species of *Cassidula* in Singapore. *Cassidula doliolum* is distributed throughout the Indo-West Pacific, and has also been reported in Sydney, Australia; Luzon in the Philippines (Pfeiffer, 1857); Bengal in India (Nevill, 1878) and Vietnam (Hylleberg & Kilburn, 2003).

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