New Singapore record of island-doll snail, *Nesopupa malayana malayana*

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

Location, date and time: Singapore Island, Outram area, Jalan Kukoh; 12 October 2018, 1130 hrs.


Observers: Chan Sow-Yan & Lau Wing Lup.

Observation: Live *Nesopupa malayana malayana* snails of about 2 mm shell length (Fig. 1 & 2) were seen crawling on twigs and dead leaves about half an hour after a heavy downpour. Also seen in the same location are typical urban snails like *Taiwanassiminea bedaliensis*, *Liardetia doliolum*, *Opeas hannense* and *Allopeas gracile*. Twenty specimens of *Nesopupa malayana malayana* were deposited as voucher specimens in the Zoological Reference Collection of the Lee Kong Chian Natural History Museum, National University of Singapore, under the catalogue number ZRC.MOL.14442.

Remarks: The genus *Nesopupa* (*Neso* – island in Greek, *pupa* – doll in Latin) occurs on islands throughout the Pacific Ocean (Gargominy, 2008), but three species are known from East Africa in Mozambique (Muratov, 2010). The featured nominate subspecies of *Nesopupa malayana* is recorded in Malaysian Borneo, Indonesia (Java, Seribu Islands, Bali, Nusa Penida, Sumbawa, Sumba, Komodo, Timor & Tanimbar), Thailand (Krabi), Philippines, India and Australia (see Vermeulen & Whitten, 1998; Maassen, 2003; Mujiono, 2015). It has also been recorded from Tanzania in East Africa (Gittenberger & Bruggen, 2013). *Nesopupa malayana* was described from Borneo without precise location by A. Issel in 1874 (see Thompson & Dance, 1983). In the Malaysian Borneo state of Sabah, Phung et al. (2017) found it to be widespread on islands and Gopalsamy (2007) found the species, as well as its congener *Nesopupa moreleti*, in karst habitats. There are no records thus far of the genus *Nesopupa* on Peninsular Malaysia (see e.g., Maassen, 2001; Foon et al., 2017).

*Nesopupa moreleti* and *Nesopupa malayana samuiana* are two congeners known to occur in Southeast Asia. *Nesopupa moreleti*, which has been found ‘in a decaying cocoa-nut shell on the beach’ in Sumatra (see Benthem-Jutting, 1959), has a less cylindrical shell with more apertural teeth (see Phung et al., 2017). The subspecies *Nesopupa malayana samuiana*, described from Samui Island in the Gulf of Thailand (see Thompson & Upatham, 1997; Zilch, 1983), also has a less cylindrical shell (see Panha et al., 2002). However, Panha & Burch (2005) wrote that they ‘... haven’t found this subspecies (*Nesopupa malayana samuiana*) on Thailand’. They were probably referring to the mainland part of the country. Dumrongrojwattana et al. (2007) found two unidentified species of *Nesopupa* from eastern Thailand.

*Nesopupa malayana malayana*, as well as its family Vertiginidae, are herein documented as new records for Singapore (see Tan et al., 2012). Although Singapore falls within the presumed natural range [see Vermeulen & Whitten (1998) and Mujiono (2015)], it is uncertain if the featured population is native there, or if it is a recent introduction. As live specimens of *Nesopupa malayana malayana* (Fig. 1) are rarely seen, the featured population would be of considerable interest.

References:


Fig. 1. Lateral view of a live Nesopupa malayana malayana in-situ at Jalan Kukoh on 12 October 2018.

Fig. 2. Dorsal and aperture views of retracted Nesopupa malayana malayana (from left - 1.9, 2.1 & 1.8 mm).

Photographs by Lau Wing Lup