

First Singapore record of Souverbie's nerite, *Smaragdia souverbiana*

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Subjects: Souverbie's nerite, *Smaragdia souverbiana* (Mollusca: Gastropoda: Neritidae).

Subjects identified by: Tan Siong Kiat.

Location, dates and time: Singapore Strait, Cyrene Reef; 14 Aug.2017; around 0830 hrs.

Habitat: Marine. Seagrass meadow on coral reef flat.

Observers: Toh Chay Hoon and Ria Tan.

Observations: Tiny nerites of around 2-4 mm shell length (Fig. 1 & 2) were found, perched motionless, on the blades of the seagrass *Enhalus acoroides* exposed during a morning low tide. The snails were not found on adjacent patches of *Thalassia hemprichii* and *Cymodocea serrulata* seagrasses. Three specimens were collected as vouchers and deposited in the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum, National University of Singapore, and registered as ZRC.MOL.10453.

Remarks: These little nerites were determined to be *Smaragdia souverbiana*, a species which has not been previously recorded from Singapore (e.g., Tan & Clements, 2008; Sanpanich & Tan, 2016). Members of the genus *Smaragdia* are typically associated with seagrass, with the different species apparently preferring specific seagrasses (Rueda & Salas, 2007; Unabia, 2011; Rossini et al., 2014). Although they were seen only on *Enhalus acoroides* at Cyrene Reef, it would be premature to suggest that *Smaragdia souverbiana* has a preference for that particular species of seagrass. Prior to the present find at Cyrene, S. K. Tan has viewed images of a probable conspecific snail photographed on *Halophila ovalis* at Pulau Hantu in July 2017, by Destine Ang. As specimens were not available for detailed examination, the identity of the Pulau Hantu snail could not be confirmed. A study on an eastern Australian population of the same species by Rossini et al. (2014) suggests that they have a strong preference for *Zostera capricorni*; a seagrass that does not seem to occur in Singapore.

Smaragdia souverbiana has been introduced and established in areas beyond its natural distribution since the late 1980s, particularly in the Mediterranean Sea (Zenetos et al., 2005; Rothman & Mienis, 2011). Its occurrence in Singapore is presumed to be natural because it is well within the known geographic range of this widely distributed Indo-West Pacific species (see Dekker, 2000; Eichhorst, 2016). *Smaragdia souverbiana* could have been overlooked in earlier studies due to its minuscule size, and future surveys with more focus on micro gastropods will likely reveal the presence of this species at more localities around Singapore.

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Note: We thank Destine Ang for sharing her sighting of a probable *Smaragdia souverbiana* at Pulau Hantu.



Fig. 1. Dorsal view of a *Smaragdia souverbiana*, shell length around 3.5 mm. Photograph by Toh Chay Hoon



Fig. 2. Ventral view of the same individual. Photograph by Toh Chay Hoon