

## First Singapore record of Essington dove shell, *Mitrella essingtonensis*

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**Subjects:** Essington dove shell, *Mitrella essingtonensis* (Mollusca: Gastropoda: Columbellidae).

**Subjects identified by:** Tan Siong Kiat.

**Locations, dates and time:** Two locations -

- 1) Singapore Strait, Semakau landfill; 20 September 2009; between 1700 and 1900 hrs.
- 2) Singapore Island, West Coast Park; 17 October 2016; between 1700 and 1830 hrs.

**Habitat:** Marine at Semakau. Estuarine at West Coast Park, on fine silty mud during low tide at sheltered muddy beach, near mangroves.

**Observers:** Tan Siong Kiat, Tan Heok Hui and Iffah Iesa.

**Observations:** A number of small, slender dove shells were seen crawling around on the surface of fine silty mud during low tide at the sheltered muddy beach of West Coast Park. Some specimens were collected and deposited in the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum, National University of Singapore and catalogued as ZRC.MOL.8674 (see bottom of accompanying picture). The specimens appear to be conspecific with one lot catalogued as ZRC.MOL.10189 collected earlier at Semakau Landfill (see top of accompanying picture) during surveys conducted as part of 'Project Semakau' (see Tan & Yeo, 2010 as *Mitrella* sp.).

**Remarks:** Although regarded as conspecific, mature specimens (i.e. shells with a thickened outer lip) from the West Coast population are, however, noticeably smaller compared to the ones from Semakau (around 8.5-9 mm versus 9-11 mm in shell lengths). Both lots are identified as *Mitrella essingtonensis*; first based on Wilson (1994) then checked against the original description of the species by Reeve (1859). A prominent hump on the dorsal side of its body whorl distinguishes *Mitrella essingtonensis* from its congeners found in Singapore. The surface of the smooth and glossy shell is shrouded by a thin layer of periostracum. Shells of living specimens are often additionally covered with a layer of silt.

Two distinct forms of *Mitrella essingtonensis* are present in Singapore. One with very dark ebony brown to nearly black shell and the other much paler brown (see accompanying picture). Both forms are common, but the dark form is seemingly predominant in the West Coast population. Curiously the form with brown spiral stripes on a very pale yellow to white shell, figured in Reeve (1859: pl. 27, fig. 174b) and Wilson (1994: pl.16, figs. 4A-4C), does not appear to occur in Singapore.

*Mitrella essingtonensis* seems to be very common where it occurs (personal observations). Since the specimens from Semakau were previously listed as an unidentified species of *Mitrella* by Tan & Yeo (2010), *Mitrella essingtonensis* is herein regarded as a new record for Singapore.

### References:

Reeve, L. A., 1859. Monograph of the genus *Columbella*. *Conchologia iconica: or, Illustrations of the Shells of Molluscous Animals*. 11: unnumbered pages [1-59], *Columbella* pls. 1-37.

Tan S. K. & R. K. H. Yeo, 2010. The intertidal molluscs of Pulau Semakau: preliminary results of "Project Semakau". *Nature in Singapore*. 3: 287-296.

Wilson, B. R., 1994. *Australian Marine Shells: Prosobranch Gastropods. Part 2 (Neogastropods)*. Odyssey Publishing, Western Australia. 370 pp.



Dried empty shells of *Mitrella essingtonensis* from Singapore: 10 examples (top), 9-11 mm in shell lengths, from Semakau Landfill (ZRC.MOL.10189), and 8 examples (bottom), 8.5-9 mm in shell lengths, from West Coast Park (ZRC.MOL.8674). The West Coast specimens appear smoother and glossier because their periostraca have been removed. Photograph by Tan Siong Kiat