

**A NEW RECORD OF *SEMELE SINENSIS* A. ADAMS, 1853
(BIVALVIA: TELLINOIDEA) IN SINGAPORE**

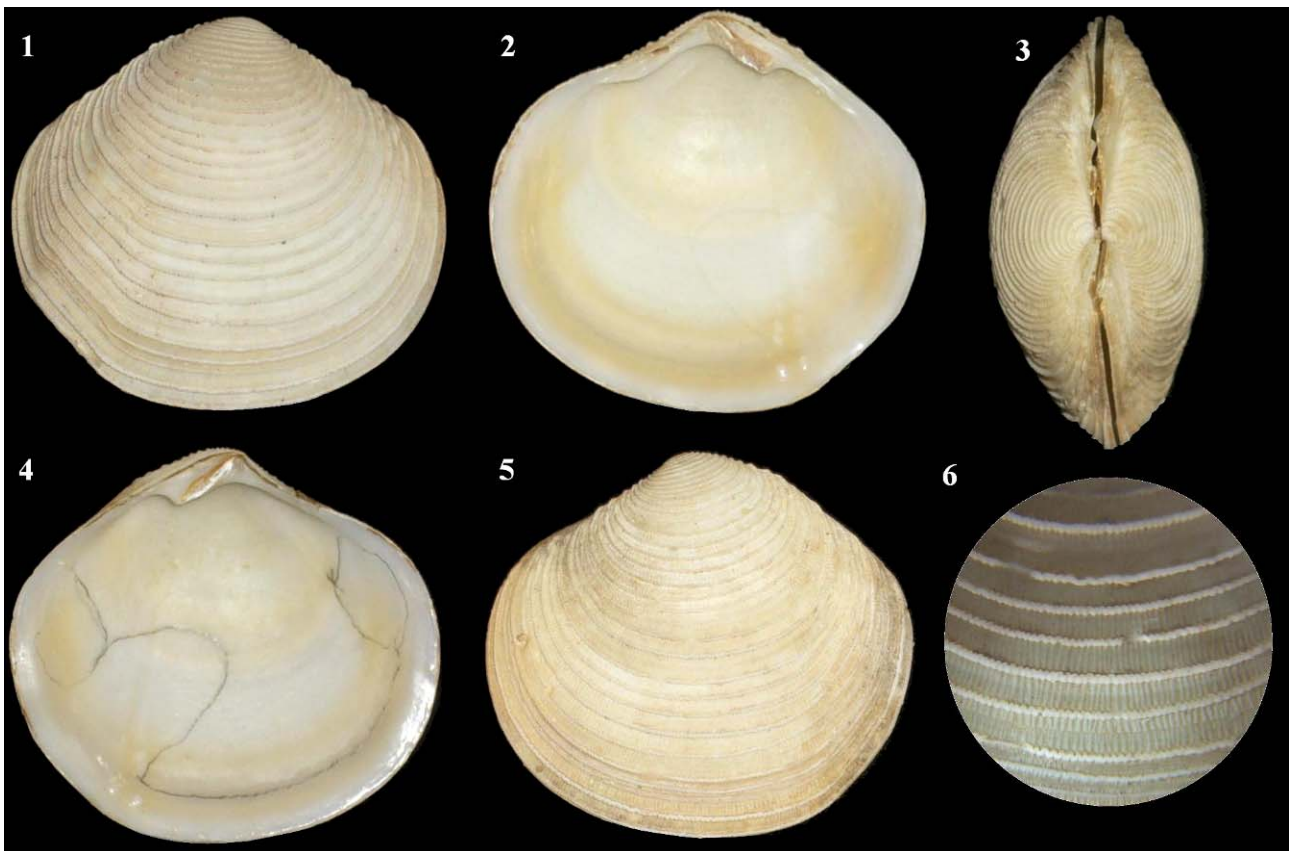
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INTRODUCTION

According to historical records, only one member of the genus *Semele* has been recorded in Singapore (Chuang, 1973; Morris & Purchon, 1981; Wee & Ng, 1994). Morris & Purchon (1981) identified *Semele carnicolor* from Pulau Blakang Mati (presently Sentosa) and the specimen was deposited in the Academy of Natural Sciences, Philadelphia, Pennsylvania, U.S.A. *Semele carnicolor* (Figs. 1–6) is still found in the inter-tidal zone of the shores of Changi to East Coast Park. As part of efforts to contribute to the knowledge of Singapore’s malacofauna, several trips were made to the reclaimed coastlines of East Coast Park to collect and identify marine molluscs. The first local record of *Semele sinensis* is reported herein.

DETAILS OF COLLECTION

Several semelids, observed to be with the animals’ rotting remains, or completely empty, were collected from among shell grit and debris at the high tide line near Bedok Jetty, East Coast Park, on 30 Aug.2008. Collected specimens were compared with illustrations and descriptions of Semelidae from Lamprell & Whitehead (1992), Oliver (1992), and



Figs. 1–6 . *Semele carnicolor* shell, East Coast Park, shell length 20.2 mm; shell height 17.4mm: 1, Right valve outer view; 2, right valve inner view; 3, articulated dorsal view; 4, left valve inner view; 5, left valve outer view; 6, outer valve sculpture magnified.

Simone & Guimarães (2008) and subsequently identified as *Semele carnicolor* and *Semele sinensis*. Representative material is in the process of being deposited in the Zoological Reference Collection, Raffles Museum of Biodiversity Research, National University of Singapore.

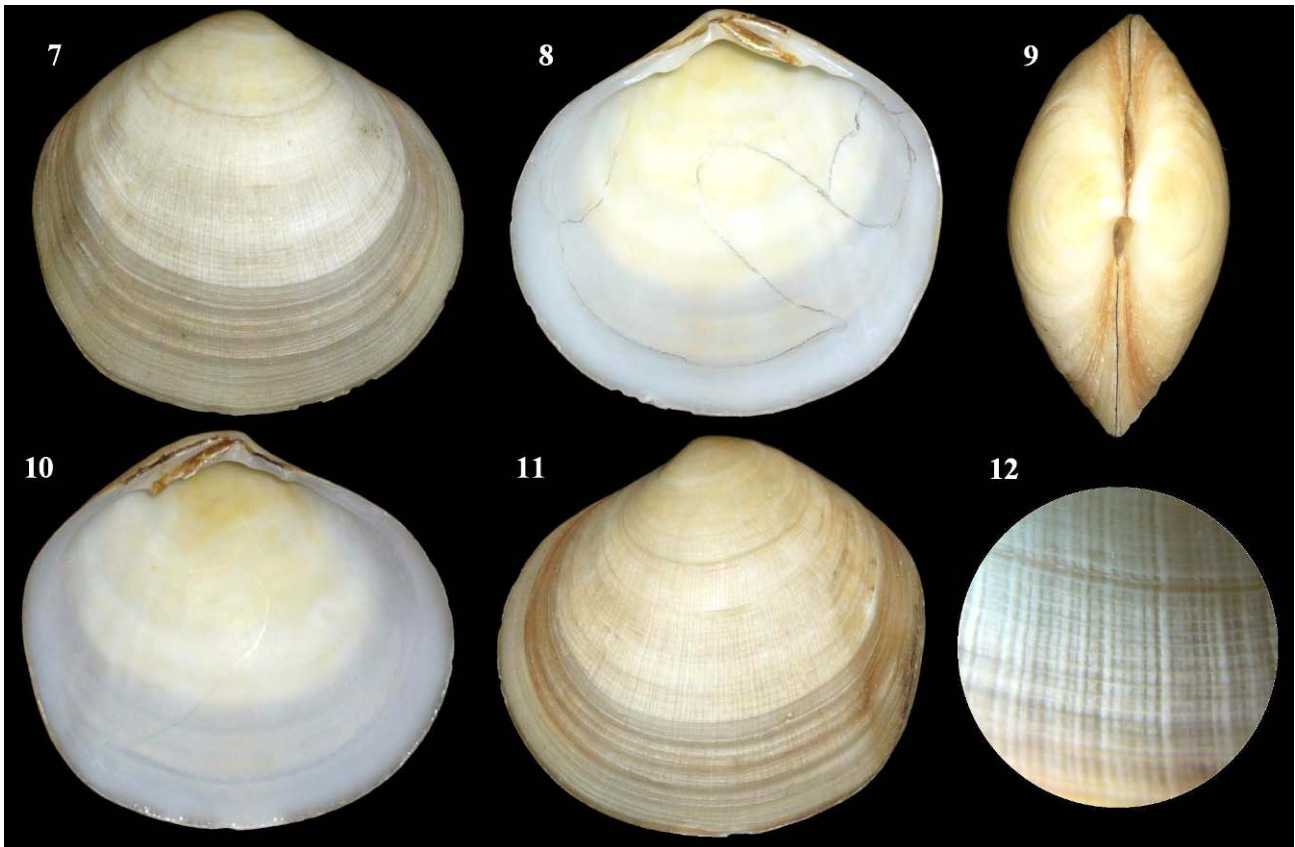
SPECIMEN DETAILS

Simone & Guimarães (2008) provided a detailed conchological and anatomical description of *Semele sinensis*. The shell is solid, slightly inflated and circular or slightly elongated. The shell exterior is white to cream, occasionally with random, narrow, light-brown, radial bands. The umbones are located approximately in the centre of shell (Figs. 7, 9 & 11) and often stained yellow to pink. The lunule and escutcheon are distinct (Fig. 9). The exterior shell sculpture consists of low concentric scales that are taller near the ventral edge, with radial ribs crossing the interspaces giving an irregular, clathrate appearance (Fig. 12). The inner surfaces are white and glossy with the area under the umbones stained yellow to brown (Figs. 8 & 10). The hinge plate has two cardinal teeth, although the anterior tooth often appears almost negligible in the right valve. Lateral teeth are always present. The pallial sinus is wide and non-confluent, and the anterior adductor scar is slightly larger than its posterior counterpart (Figs. 8 & 10).

Although live specimens of *Semele sinensis* have been observed locally, broken shells are more frequently encountered among beach debris deposited on the shores of the East Coast Park from Tanah Merah Ferry Terminal to Bedok Jetty. *Semele sinensis* has a widespread geographical distribution, having been recorded from the Middle East (Bosch et al., 1995; Oliver, 1992) to the north coast of Australia (Lamprell & Whitehead, 1992). Closer to Singapore, it was identified by Way & Purchon (1981) from Langkawi Island, Malaysia, and more recently by Simone & Guimarães (2008) from the Gulf of Thailand. Thus, the discovery of *Semele sinensis* in Singapore fits well with its known distribution.

ACKNOWLEDGEMENTS

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Figs. 7–12. *Semele sinensis* shells; East Coast Park; shell length 40.3 mm; shell height 38.9 mm: 7, Right valve outer view; 8, right valve inner view; 9, articulated dorsal view; 10, left valve inner view; 11, left valve outer view; 12, outer valve sculpture magnified.

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