

## Lyrate Asiatic hard clam, *Meretrix lyrata*, at Changi coast

**Subjects:** Lyrate Asiatic hard clam, *Meretrix lyrata* (Mollusca: Bivalvia: Veneridae).

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

**Location, date and time:** Singapore Island, Changi coast, monsoon canal mouth near National Service Resort & Country Club; 26 May 2017; around 0630-0730 hrs.

**Habitat:** Estuarine. Sand bank with muddy sand sediment.

**Observers:** Tan Heok Hui, Chan Sow Yan, Leo Nguang & Iffah Iesa.

**Observation:** A few empty articulate shells of the lyrate Asiatic hard clams were encountered, strewn on the surface of a muddy sand bank exposed during low tide. The specimens, measuring around 30-40 mm in shell lengths, were obviously very recently dead as the shells were still glossy without any trace of algae and other marine growths (see accompanying picture). Two examples were collected and deposited as vouchers in the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum at the National University of Singapore. They are catalogued as ZRC.MOL.10158. No attempt was made to locate live specimens.

**Remarks:** This appears to be the first record of *Meretrix lyrata* in Singapore (see Morris & Purchon, 1981; Tan & Woo, 2010). However, considering their rather uniform sizes and that they were found close to Vesak Day, it is possible that the clams were released for religious merit around two weeks prior, at or near the location where they were found (see Shiu & Stokes, 2008; Yeo & Chia, 2010). The specimens are therefore very unlikely to be of local origin.

Several species of *Meretrix* clams are often available as live seafood in Singapore. *Meretrix lyrata* is one of the easiest to identify and can be easily distinguished from the others by the presence of concentric lirated sculpture (Huber, 2010). A few species of Asiatic hard clam (*Meretrix*) have been recorded from Singapore to date (e.g., Morris & Purchon, 1981; Tan & Woo, 2010; unpublished data). Only *Meretrix meretrix* and *Meretrix astricta* could be verified by voucher specimens in the ZRC, but even with voucher specimens, it is usually impossible to determine if finds of the two aforementioned species are from naturally occurring populations. Many of the live seafood species from around the region could become established in Singapore due to wilful releases. Unfortunately measures to limit the introductions of live seafood species and studies to assess the potential risks and impacts are generally lacking.

### References:

- Huber, M., 2010. *Compendium of bivalves. A full-color guide to 3,300 of the world's marine bivalves. A status on Bivalvia after 250 years of research.* Conchbooks, Hackenheim. 901 pp. + CD-ROM.
- Morris, S. & R. D. Purchon, 1981. The marine shelled Mollusca of West Malaysia and Singapore. Part 3, Bivalvia. *Journal of Molluscan Studies*. 47 (3): 322-327.
- Shiu, H. & L. Stokes (2008) Buddhist animal release practices: Historic, environmental, public health and economic concerns. *Contemporary Buddhism*. 9: 181-196.
- Tan S. K. & H. P. M. Woo, 2010. *A preliminary checklist of the molluscs of Singapore.* Raffles Museum of Biodiversity Research, National University of Singapore. 78 pp.
- Yeo, D. C. J. & C. S. W. Chia, 2010. Introduced species in Singapore: An overview. *COSMOS*. 6: 23-37.

Contributors: **Tan Siong Kiat**, Martyn E. Y. **Low**, **Tan Heok Hui**, **Chan Sow Yan**, Leo **Nguang** & Iffah **Iesa**  
Contact address: [nhmtsk@nus.edu.sg](mailto:nhmtsk@nus.edu.sg) (Tan S. K.)



*Meretrix lyrata* (ZRC.MOL.10158), shell length 39.2 mm, from Changi, showing the exterior of left shell valve (above) and the interior of the right shell valve (below). Margins of muscle scars, pallial line and sinus on interior surface highlighted with pencil lines. Photographs by Tan Siong Kiat