

The Thai dog whelk, *Reticunassa thailandensis*, in Singapore

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Subjects: Thai dog whelk, *Reticunassa thailandensis* (Mollusca: Gastropoda: Nassariidae).

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

Locations and dates: Locations along the eastern shores of Singapore Island facing the Johor Strait (Changi) and the Singapore Strait (East Coast Park and Tanah Merah).

1. Changi Beach Park near Changi Ferry Terminal, on 14 December 2019.
2. East Coast Park beach, on 27 January 2012.
3. East Coast Park on Bedok Jetty, on 31 July 2012 and 19 January 2012.
4. Tanah Merah shore near Tanah Merah Ferry Terminal, on 2 May 2010.
5. East Coast Park beach at the mouth of Bedok Canal, on 24 February 1994.
6. East Coast Park beach, on 12 January 1993.

Habitat: Sea shore. Changi Beach is an estuarine intertidal area with soft sandy substrate. East Coast Park and Tanah Merah are reclaimed shores with sandy beaches and granite rock bunds. Bedok Jetty is a concrete walkway that extends 250 m out to sea beyond the intertidal zone over an exposed area with sandy substrate.

Observers: Chan Sow-Yan and Lau Wing Lup.

Observations:

1. Two dead shells (Fig. 1-4) were discovered under rocks in the intertidal area during low tide at Changi Beach.
2. Two dead shells were found stranded on the beach at the mid to high tide line.
3. A total of six live snails were found discarded on Bedok Jetty on the two days.
4. Five shells inhabited by hermit crabs were discovered on sand and among rocks near the ferry terminal.
5. 15 dead shells were found beached at the mouth of the canal.
6. Four dead shells were found on the sand flats.

Remarks: *Reticunassa thailandensis* was described by Galindo, Kool and Dekker (2017) in a revision that includes molecular sequencing of snails formerly identified as *Reticunassa paupera*. Previous records of *Reticunassa paupera* from Singapore (Tan & Chou, 2000; Tan & Woo, 2010; Sanpanich & Tan, 2016, as *Nassarius pauperus*) are partially *Reticunassa thailandensis*. Our observations suggest that *Reticunassa paupera* is very uncommon in Singapore, and a live one is yet to be found. Despite their similar appearances, it is possible to distinguish the two species on morphological characters (see Table and Fig. 1-8).

Only dead shells of *Reticunassa thailandensis* have been encountered in intertidal areas. The only live examples encountered by the authors are six specimens they found on Bedok Jetty in 2012. These were most likely pulled up with baited fishing lines and then discarded on the jetty. This suggests that *Reticunassa thailandensis* lives in subtidal zones. Galindo et al. (2017) indicates that the species inhabits depths of one to 90 metres.

References:

- Galindo LA, Kool HH, & Dekker H (2017) Review of the *Nassarius pauperus* (Gould, 1850) complex (Nassariidae): Part 3, reinstatement of the genus *Reticunassa*, with the description of six new species. *European Journal of Taxonomy*, 275: 1–43.
- Sanpanich K & Tan SK (2016) Shell-bearing gastropod molluscs of the Singapore Strait. *The Raffles Bulletin of Zoology*, Supplement No. 34: 528–538.
- Tan KS & Chou LM (2000) A Guide to the Common Seashells of Singapore. Singapore Science Centre. 168 pp.
- Tan SK & HPM Woo (2010) A Preliminary Checklist of the Molluscs of Singapore. Raffles Museum of Biodiversity Research, National University of Singapore. 78 pp.

Table. Comparison between *Reticunassa paupera* and *Reticunassa thailandensis* (largely based on Galindo et al., 2017).

Species	<i>Reticunassa paupera</i> (Fig. 5-8)	<i>Reticunassa thailandensis</i> (Fig. 1-4)
Shell colour	Creamy-white to yellowish brown, occasionally with 1–3 darker spiral bands.	Variable. Cream or orange to light brown, either uniformly coloured or with several darker spiral cords. Occasionally remnants of bands are present on the varix and fasciole.
Shell height	6.8–10.3 mm.	5.5- 9.1 mm. Usually 7-8 mm.
Radial sculpture	Pronounced & rounded axial ribs.	Strong & rounded axial ribs.
Spiral cords	Poorly developed.	Well developed.
Intercordal spiral striae	Very fine.	Fine.
Axial ribs on last whorl	14-16.	13-14.
Teeth on outer lip	5–7 fairly prominent, lirate denticles.	8 unequal denticles.
Columella sculpture	6–9 fine denticles.	short but strong lirae (small line bulge).
Columellar callus	Sharply bordered and limited to columella.	Well-bordered, slightly extending over body whorl.
Whorls	7.25 convex whorls.	5.8 whorls.



Fig. 1. Aperture view.



Fig. 2. Dorsal view.



Fig. 5. Aperture view.



Fig. 6. Dorsal view.

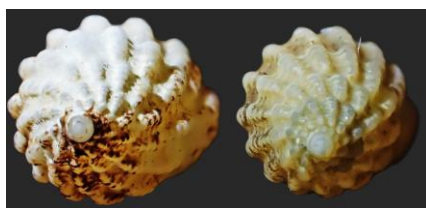


Fig. 3. Apical view.



Fig. 4. Siphonal view.



Fig. 7 Apical view.



Fig. 8. Siphonal view.

Fig. 1-4. Shells of *Reticunassa thailandensis* from Changi. Height of larger shell about 8 mm. Photographs by Lau Wing Lup

Fig. 5-8. Shell of *Reticunassa paupera* from East Coast Park Bedok Canal area. Shell height 7.3 mm. Photographs by Chan Sow-Yan