

Biodiversity Record: New record of the snail, *Iravadia rohdei*, in Singapore

Chan Sow-Yan* & Lau Wing Lup

Email: chansowyan@gmail.com (*corresponding author), suiseki1984@yahoo.com.sg

Recommended citation. Chan S-Y & Lau WL (2025) Biodiversity Record: A new record of the snail, *Iravadia rohdei*, in Singapore. Nature in Singapore, 18: e2025017. DOI: 10.26107/NIS-2025-0017

Subjects: Rohde's iravadiid snail; *Iravadia rohdei* (Mollusca: Gastropoda: Iravadiidae).

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

Location, date and time: Singapore Island, mangrove at Changi Beach Park; 31 October 2024; around 1630 hrs.

Habitat: Estuarine. In shallow tide pools with dead leaves and twigs, at low tide.

Observers: Lau Wing Lup and Chan Sow-Yan.

Observation: One specimen was found among the more common *Iravadia bombayana* on dead leaves. It was heavily encrusted with organic debris and resembled a faecal pellet (Figs. 1, 2), but devoid of any periostracum hairs at the sutural areas, a distinctive feature that differentiates it from *Iravadia bombayana* (Fig. 5) in the field. After thorough cleaning, the specimen was noted to have a shell height of about 5 mm. Although the apex looks decollated, its spire and protoconch remain mostly intact. The shell has a cylindrical shape with up to five slowly and regularly increasing convex whorls, separated by impressed sutures. The microsculpture consists of regularly spaced strong spiral ridges. The umbilicus is rimate. The body whorl is about 70% of the shell height. The aperture is ellipsoidal, its outer lip continuous, the parietal wall thickened and bordered with a thin yellowish-brown line and a thick varix (Figs. 3, 4).

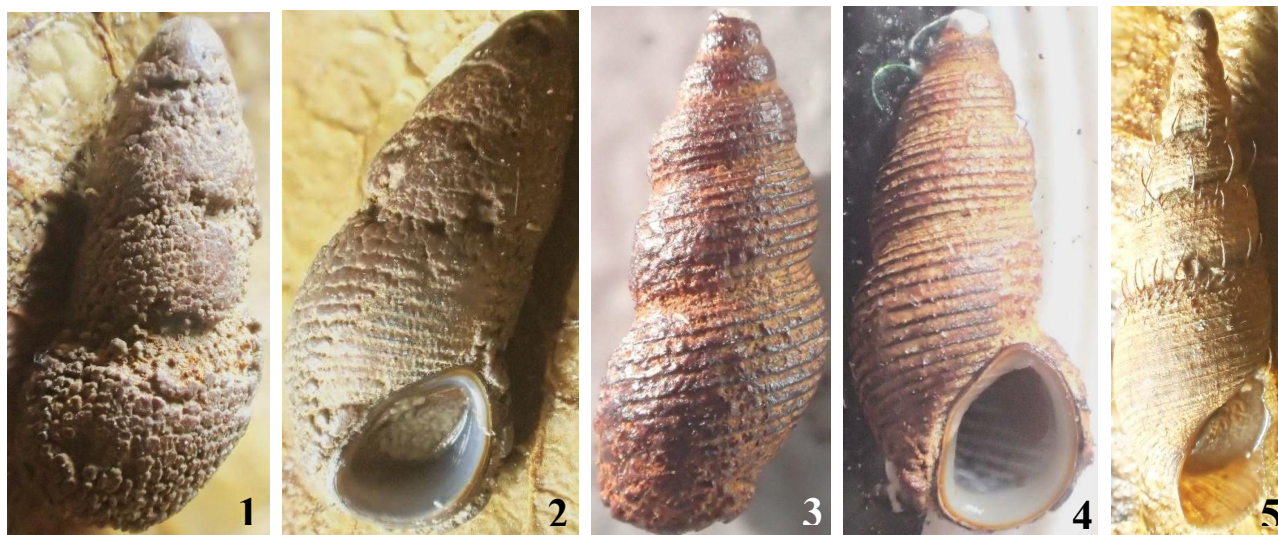


Fig. 1. Dorsal lateral view of *Iravadia rohdei* shell before cleaning and resembling a faecal pellet. Fig. 2. Aperture view of the same shell. Fig. 3. Dorso-lateral view of the same shell after cleaning. Note the micro-sculpture consists of strong and regularly spaced spiral ridges. Fig. 4. Aperture view of the same shell after cleaning. Fig. 5. Aperture view of a *Iravadia bombayana* before cleaning for comparison. Note the presence of periostracum hairs (Photographs by: Lau Wing Lup).

Remarks: Originally described from near Chantaburi in Thailand (Brandt, 1968, as *Fairbankia rohdei*), *Iravadia rohdei* occurs along the coastal areas of the Gulf of Thailand, as well as along the west coast of the Malay Peninsula, where it inhabits drainage channels of mud swamps, mangrove forests and nipa palms, feeding on decaying organic matter (Brandt, 1974). Although herein recorded as new to Singapore (see Tan & Woo, 2010), its presence there is expected and was likely overlooked. The authors are aware of a specimen collected from Sungei Buloh in November 2013, which was about 4 mm in height, but missing its apex and parts of its spire (unpublished data).

The table below, based on Brandt (1968, 1974) and Robba et al. (2007), highlights key morphological features that can be used to differentiate *Iravadia rohdei* from the more common *Iravadia bombayana*.

Species	<i>Iravadia rohdei</i>	<i>Iravadia bombayana</i>
Shell opacity without periostracum	Opaque	Translucent
Number of whorls	4 or 5	More than 5
Last whorl	About 70% of total height	Slightly more than 50% of total height
Shell height	5.3–5.8 mm	Up to 12 mm
Microsculpture	Mainly strong spiral ridges	Mostly weak spiral ridges
Long periostracum ‘hairs’	Absent	Present (see Fig. 5)
Shell shape	Cylindrical and ovate-pupiform	Elongate-oval
Shell apex	Decollated-looking	More pointed and apparently tilted
Shell protoconch	Planorbid, of about 2.5 smooth and convex whorls	Small, mammillate, of 2 smooth and convex whorls
Shell texture	Rough	Smoother
Parietal wall	Thick	Thin

Literature cited:

Brandt RAM (1968) Description of new non-marine mollusks from Asia. *Archiv fur Molluskenkunde*, 98: 213–289.

Brandt RAM (1974) The non-marine aquatic Mollusca of Thailand. *Archiv fur Molluskenkunde*, 105: 1–423.

Robba E, Di Geronimo I, Chaimanee N, Negri MP & Sanfilippo R (2007) Holocene and Recent shallow soft-bottom mollusks from the western Gulf of Thailand: Pak Phanang Bay and additions to Phetchaburi fauna. *Bollettino Malacologico*, 42: 1–98.

Tan SK & Woo HPM (2010) A Preliminary Checklist of the Molluscs of Singapore. Raffles Museum of Biodiversity Research, National University of Singapore, 78 pp. Uploaded 2 June 2010. https://lkcnhm.nus.edu.sg/wp-content/uploads/sites/11/2024/02/preliminary_checklist_molluscs_singapore.pdf (Accessed 26 February 2025).