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Biodiversity Record: New record of the chiton, *Ischnochiton boninensis,* in Singapore

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Subjects: Bonin Islands chiton, *Ischnochiton boninensis* (Mollusca: Polyplacophora: Ischnochitonidae).

Subjects identified by: Lau Wing Lup.

Location, date and time: Singapore Island / Johor Strait, Changi Beach Park; 19 December 2025; around 1620 hrs.

Habitat: Estuarine. Intertidal shore at low tide.

Observer: Lau Wing Lup.

Fig. 1. Dorsal view of two *Ischnochiton boninensis* on a rock, in situ. Fig. 2. Dorsal view of one of the *Ischnochiton boninensis* with head pointing up. Note its elongated oval shape with Valves II–VII appearing broadly rectangular. Fig. 3. Lateral view of the same specimen with head pointing up (Photographs by Lau Wing Lup).

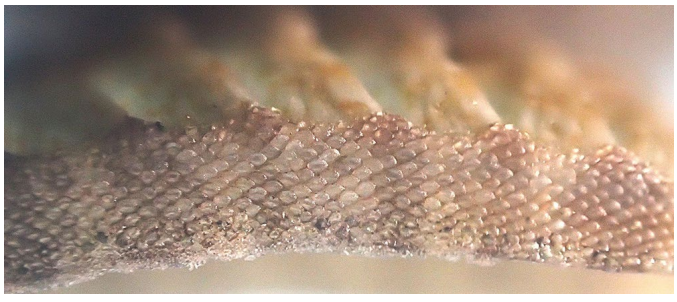

Fig. 4. Lateral view of the chiton showing the smooth girdle (perinotum) parallelly aligned to the shell's outer margin that is imbricated with small, oval and flat scales (Photograph by Lau Wing Lup).

Observation: An orange example of about 7 mm and an olive-green individual of about 9 mm were seen amongst barnacles and seaweed on the same rock in shallow water (Fig. 1). The orange one was creeping about while the green one was immobile.

Both chitons have an elongated-oval outline. Their Valves II–VII appear broadly rectangular (Fig. 2). The central area of the intermediate valves is covered with small and elongated granules forming a quincunx pattern (Fig. 2). The lateral area of the intermediate valves is slightly raised with 5–7 indistinct radial ribs that becomes gradually fainter towards the apex and splitting into smaller and shorter riblets towards the margin. The intermediate valves are dorso-ventrally rounded with side slope slightly convex. The girdle (perinotum) is smooth and aligned parallel to the shell's outer margin, imbricated with small, oval and flat scales (Fig. 4). The girdle, which is slightly narrower in width than valves (Fig. 3), ranges from cream to orange, often with yellow-brown blotches or dark brown transverse bands. The head valve is semicircular, has about 50 radial riblets that gradually turns fainter towards the apex; with somewhat distinct growth lines; round anterior margin and widely V-shaped posterior margin (Fig. 2). Like the intermediate valves, the radial riblets bifurcate towards the margin. The tail valve is almost semicircular, as wide as the head valve, with a convex anterior margin. The mucro is subcentral and not protruding. The postmucronal area is formed similarly to the head valve, with more prominent radial ribs. The postmucronal slope is weakly concave (Fig. 3).

Remarks: *Ischnochiton boninensis* is herein presented as a new record in Singapore (see Tan & Woo, 2010) and the third species of Ischnochitonidae to be documented there (see Lau, 2025). *Ischnochiton boninensis* is widely distributed in China, Hong Kong, Japan, Vietnam, and Korea (Park et al., 2024), occurring in intertidal zones down to a depth of 5 m (Sirenko et al., 2019). The tegmentum colour is variable (Owada, 2016). *Ischnochiton boninensis* is very similar in appearance to its congener *Ischnochiton comptus* which was recorded earlier in Singapore by Lau (2025). The following table, based on Owada (2016) and Park et al. (2024), highlights some characters to tell the two species apart.

Species	***Ischnochiton boninensis***	***Ischnochiton comptus***
Body outline	Elongate-oval.	Oval.
Body length	12.9–26 mm.	15.7–19.38 mm.
Back profile	Rounded.	Sub-carinated.
Central area microsculpture (Valves II–VII)	Small and elongated granules.	Egg-shaped granules.
Lateral area of intermediate valve	5–7 radial ribs.	4–5 radial ribs.
Ribs towards margin	Split into riblets.	No obvious splitting.
Post-mucronal slope	Weakly concave.	Straight.
Perinotum scale	Small, oval and flat, with 9–16 fine longitudinal ribs.	Large, smooth, glossy scales.
Radula	Central teeth bilobed blade; denticles of major lateral tooth pointed.	Central teeth oblong blade; denticles of major lateral tooth rounded.

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