

Biodiversity Record: The porcelain crab, *Enosteoides ornatus*, in Singapore

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Subjects: Porcelain crab, *Enosteoides ornatus* (Crustacea: Decapoda: Anomura: Porcellanidae).

Subjects identified by: Oh Rui Quan and Samuel Nhoung.

Locations, dates and times:

- 1) Singapore Strait, Cyrene Reef; 1 February 2026; around 1800 hrs (Figs. 1 & 2).
- 2) Singapore Strait, Pulau Jong; 23 March 2026; around 0717 hrs (Fig. 3).
- 3) Singapore Strait, East Coast Park (1.31552°N 103.98460°E); 20 May 2026; around 0707 hrs (Fig. 4).
- 4) Singapore Strait, Terumbu Raya; 19 June 2026; around 0813 hrs (Fig. 5).
- 5) Singapore Strait, Terumbu Pempang Tengah; 4 May 2026; around 0749 hrs (Fig. 6).
- 6) Singapore Strait, Terumbu Pempang Laut; 3 July 2026; around 0755 hrs (Fig. 7).
- 7) Singapore Strait, Semakau West; 23 March 2026; around 0841 hrs (Fig. 8).
- 8) Singapore Strait, Sentosa, Tanjong Rimau; 22 April 2026; around 0712 hrs (Fig. 9).
- 9) Johor Strait, Pulau Ubin, Chek Jawa (1.407392°N 103.992912°E); 19 May 2026; around 0708 hrs (Fig. 10).

Habitat: Marine. Intertidal zones of reef flat with coral rubble at low tide (locations 1–8). Estuarine intertidal shore with coral rubble at low tide (location 9).

Observer: Oh Rui Quan.

Observations: Except for location 8 (Chek Jawa), all individuals in the Singapore Strait were found among coral rubble at low tide. All individuals observed were between 6 and 8 mm in carapace width. Apart from Cyrene Reef (location 1), where two examples were observed (Figs. 1, 2) and Terumbu Raya (location 4) where at least seven individuals were seen (one of them shown in Fig. 5), one example was observed at each location (locations 2, 3, 5 to 8; figs 3, 4, 6–9) in the Singapore Strait. At Chek Jawa (location 9), three examples were found exposed behind the left eye of a horseshoe crab that was on a Haddon's carpet anemone (Fig. 10).

Remarks: Although not mentioned in the Singapore Red Data Book as a species with significant conservation concern (Mendoza et al., 2024), *Enosteoides ornatus* is noteworthy because it appears to be one of the rarest of the coral-inhabiting porcellanids in Singapore, having previously been recorded at Pulau Hantu, Pulau Sudong, Tanjong Gul (Johnson, 1970, as *Porcellana (Enosteoides) corallicola*), and Semakau Landfill (Ng, 2012, as *Porcellana corallicola*). The species was described as a coral commensal (see Johnson, 1970), but all individuals featured herein were not observed on living coral. The record from Chek Jawa is noteworthy because the habitat is not coral reef, and the crabs were on a mobile arthropod. It does not seem likely that they were commensal with the horseshoe crab, but had possibly clambered on the larger animal to access some minute food items.

Literature cited:

- Johnson DS (1970) The Galatheidea (Crustacea: Decapoda) of Singapore and adjacent waters. Bulletin of the National Museum Singapore, 35(1): 1–44.
- Mendoza JCE, Lee BY, Ng PKL & Yeo DCJ (2024) Checklist of Arthropoda – Horseshoe crab (order: Xiphosurida) and marine decapod crustacean (order: Decapoda) species with their category of threat status for Singapore. In: Davison GWH, Gan JWM, Huang D, Hwang WS, Lum SKY & Yeo DCJ (eds.) The Singapore Red Data Book. Red Lists of Singapore Biodiversity. Third edition. National Parks Board, Singapore, pp. 634–639.
- Ng MFC (2012) Habitats in Harmony: The Story of Semakau Landfill. Second edition. National Environment Agency, Singapore, 157 pp.



Figs. 1–8. In-situ images of *Enosteoides ornatus* from the Singapore Strait. Fig. 1. Dorsal view of example about 6 mm carapace width. Fig. 2. Dorsal view of example of about 8 mm carapace width. Both examples (Figs. 1 & 2) at Cyrene Reef on 1 February 2026. Fig. 3. Dorsal view of example at Pulau Jong on 23 March 2026. Fig. 4. Dorso-frontal view of example at East Coast Park on 20 May 2026. Fig. 5. Dorso-frontal view of example at Terumbu Raya on 19 June 2026. Fig. 6. Dorso-frontal view of individual at Terumbu Pempang Tengah on 4 May 2026. Fig. 7. Dorso-frontal view of example at Terumbu Pempang Laut on 3 July 2026. Fig. 8. Dorsal view of individual at Semakau West on 23 March 2026. (Photographs by: Oh Rui Quan).



Fig. 9. Dorso-frontal view of example at Tanjong Rimau on 22 April 2026.

Fig. 10. In-situ dorsal view of three examples (numbered) behind the left eye of a horseshoe crab on a Haddon's carpet anemone, at Chek Jawa on 19 May 2026.

(Photographs by: Oh Rui Quan).

