

Rediscovery of the hermit crab, *Dardanus hessii*, in Singapore

Subject: Stripe-eyed hermit crab, *Dardanus hessii* (Crustacea: Decapoda: Diogenidae).

Subject identified by: Dwi Listyo Rahayu. Snail shell identified by Tan Siong Kiat.

Location, date and time: Singapore Strait, eastern part off Changi Naval Base; 4 November 2014; between 1123 and 1133 hrs.

Habitat: Marine. Subtidal, at depth of approximately 28-30 m, on substrate of coarse sand with mud and clay.

Observers: Contributors.

Observation: One male, approximately 1.5 cm shield length, was dredged up from the sea bed. The hermit crab, occupying the shell of a *Hemifusus ternatanus* (Mollusca: Gastropoda: Melongenidae), was kept alive in an aquarium until 19 August 2015 for observation (Figs. 1 & 2). During this period, it had moulted at least four times and the moult seems to take place every one and a half month. The hermit crab has a habit of burying its moulted exoskeleton. The hermit crab was fed on alternate days with fish meat, or shrimp head. During feeding, it was observed that the subject was able to sense the presence of food fairly quickly. Once food was located, the hermit crab would snatch the food, tuck it under its shell, and start feeding. This hermit crab was active and tended to move around the tank, presumably to look for food. On 18 August 2015, the subject was found outside its shell (Fig.3), and clinging to some wire mesh. It died the following day.

Remarks: *Dardanus hessii* was last recorded in Singapore in 1969, at Bedok Beach (Rahayu, 1996). The species was first recorded in Singapore by Nobili (1903). The distinctive feature of this species is the colour markings on its eyes. The cornea is green with a white margin, and there is a dark longitudinal stripe on the lateral and mesial faces of the ocular peduncles (Fig. 4).

References:

Nobili, G., 1903. Crustacei di Singapore. *Bullettino dei Musei di Zoologia ed Anatomia comparata della Universita di Torino*. 18 (455): 1-39.

Rahayu, D.L., 1996. Notes on littoral hermit crabs (excluding Coenobitidae) (Crustacea: Decapoda: Anomura) mainly from Singapore and Peninsular Malaysia. *The Raffles Bulletin of Zoology*. 44 (2): 335-355.

Note: This is a contribution of the Singapore **Comprehensive Marine Biodiversity Survey** conducted by the National University of Singapore's Tropical Marine Science Institute and the National Parks Board.

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Fig 1. Front view of live *Dardanus hessii* in aquarium.

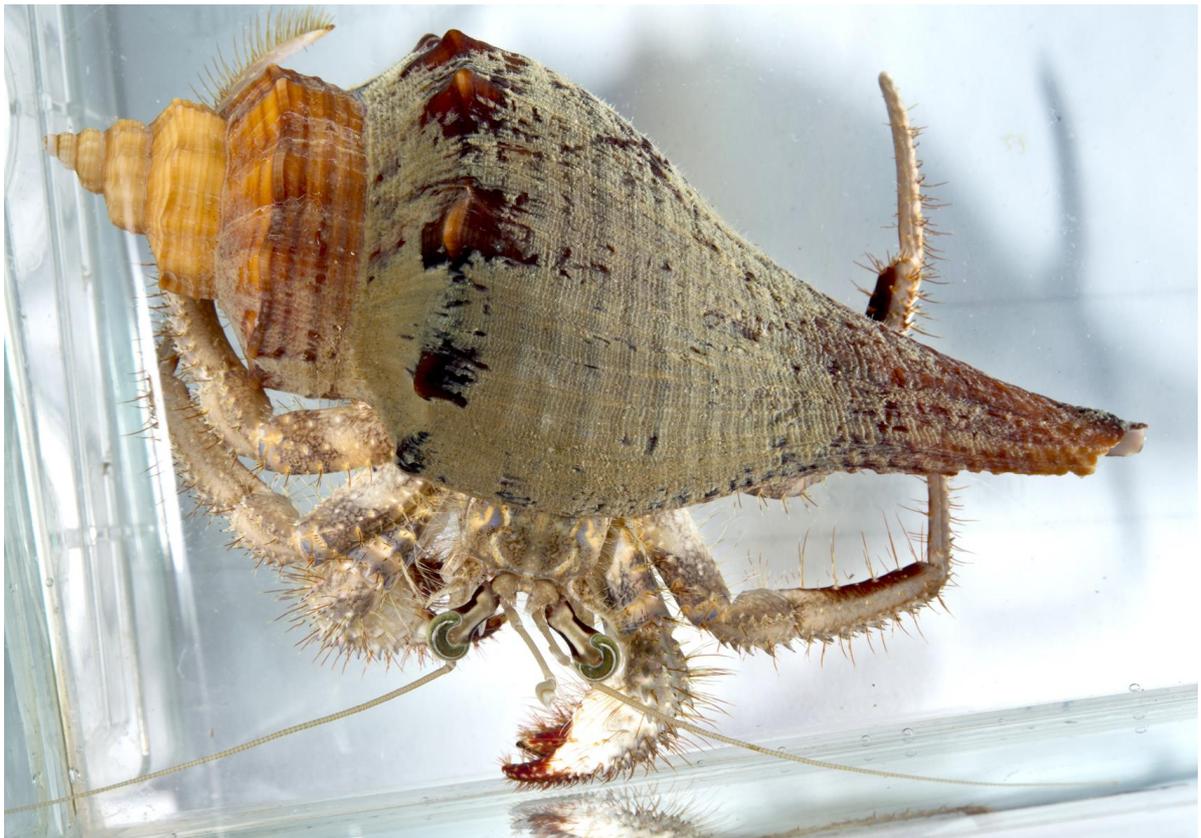


Fig 2. Dorsal view of live *Dardanus hessii* in aquarium.

Photographs by Rene Ong



Fig 3. Dorsal view of *Dardanus hessii* out of its shell.



Fig 4. Close-up of the eyes of *Dardanus hessii* showing the distinctive colour markings. Dorsal view at left, frontal view at right.

Photographs by Rene Ong