

New record of intermediate flounder in Singapore

Subject: Intermediate flounder, *Asterorhombus intermedius* (Teleostei: Bothidae).

Subject identified by: Kelvin K. P. Lim.

Location, date and time: Singapore Straits, off Pulau Hantu; 23 March 2014; around 1715 hrs.

Habitat: Coral reef, at depth of about 8 m.

Observers: Toh Chay Hoon & Neo Mei Lin.

Observation: An example of about 12 cm total length was photographed on the substrate (Fig. 1). It was observed moving the first spine of its dorsal fin (Fig. 2), apparently as a lure to attract its prey.

Remarks: One of the morphological characters that define lefteye flounders of the genus *Asterorhombus* is the first dorsal fin ray, which is elongate and distinctly longer than the second ray. Being detached from the rest of the dorsal fin and able to move independently, the first dorsal ray of *Asterorhombus* is modified into a luring device to attract prey animals. On *Asterorhombus intermedius*, the first dorsal ray is moderately prolonged (1.4 to 3.1 times in head length) and has a characteristic broad, deeply indented and branched membrane along most of its length. Both eyes (each usually with one tentacle) are set close together on the left side of the head. This species attains a maximum size of 15 cm total length and occurs on sand and mud bottoms as deep as 96 m. It is distributed from the Red Sea and the East African coast eastwards through the East Indian region to Tonga, and northwards to southern Japan (Hensley & Amaoka, 2001: 3803; Hensley, 2005; Allen & Erdmann, 2012: 1046). Although members of the genus *Asterorhombus* are widespread throughout the Indo-Pacific and are expected to occur in Singapore waters, this is the first record of their presence there (see: Fowler, 1938).

References:

- Allen, G. R. & M. V. Erdmann, 2012. *Reef Fishes of the East Indies. Volume III*. Tropical Reef Research, Perth, Australia. pp. 857-1292.
- Fowler, H. W., 1938. A list of the fishes known from Malaya. *Fisheries Bulletin*. 1: 1-268.
- Hensley, D. A., 2005. Revision of the genus *Asterorhombus* (Pleuronectiformes: Bothidae). *Copeia*. 2005 (3): 445-460.
- Hensley, D. A. & K. Amaoka, 2001. Bothidae. In: Carpenter, K. E. & V. H. Niem (eds.). *FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific. Volume 6. Bony fishes part 4 (Labridae to Latimeriidae), estuarine crocodiles, sea turtles, sea snakes and marine mammals*. FAO, Rome. pp. 3799-3841.

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Fig. 1. Dorso-lateral view of *Asterorhombus intermedius*.



Fig. 2. Head of *Asterorhombus intermedius* showing the first dorsal spine (indicated by arrow).

Photographs by Toh Chay Hoon