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Biodiversity Record: Ocellate octopuses of the genus Amphioctopus in the Singapore Strait

Vincent Choo

Tampines Street 24, Singapore 520218; Email: xia0gui@hotmail.com

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Subjects: Ocellate octopus, Amphioctopus sp. (Mollusca: Cephalopoda: Octopodiae).

Subjects identified by: Kelvin K. P. Lim.

Location, date and time: Two locations in the Singapore Strait –

- 1) Sisters Islands Marine Park, Big Sister Island; 27 November 2019; around 1630 hrs.
- 2) Lazarus Island; 16 November 2020; around 1800 hrs.

Habitat: Marine. On silty-sand substrates at the intertidal zone of coral reef, during low tide.

Observer: Vincent Choo.

Observations: Two observations recorded of two different, possibly juvenile individuals -

- 1) An example of about 3 cm in length was found in shallow water (Fig. 1a), and then momentarily moved out of the water (Fig. 1b, c).
- 2) An individual of about 5 cm in length was observed partially exposed in shallow water (Fig. 2).

Remarks: The two octopuses featured here have a distinct ocellus at the base of two arms. The ocellus contains a bluish ring within a dark circular blotch (Fig. 1b, c), or an isolated bluish ring in the larger specimen (Fig. 2a). Both individuals also display black lines along the edges of some of their arms. Black stripes on the head can only be seen on the larger example (Fig. 2b). It is not clear if the two specimens are conspecific, but based on colour pattern alone, they appear to be members of the genus *Amphioctopus*. As live octopuses are capable of dramatic colour changes and juveniles may be chromatically different from the adults, identification to species is not attempted.

Based on geographic distribution and colour pattern, possible candidates include the Siamese ocellate octopus, *Amphioctopus siamensis*, and the king ocellate octopus, *Amphioctopus rex*. Both species have a pair of iridescent ocelli and dark stripes on the edges of arms one to three, and both occur in the region between the Andaman Sea and the Gulf of Thailand (see Norman et al., 2014: 80–81). Based on the attached pictures, it does not seem possible to confirm the specific identity of the featured subjects, which appear to be juveniles. Neither *Amphioctopus siamensis* nor *Amphioctopus rex* have been reported from Singapore waters (see Tan & Woo, 2010: 68).

Literature cited:

- Norman MD, Finn JK & Hochberg FG (2014) Family Octopodidae. In: Jereb P, Roper CFE, Norman MD & Finn JK (eds.) Cephalopods of the World. An Annotated and Illustrated Catalogue of Cephalopod Species Known to Date. Volume 3. Octopods and Vampire Squids. FAO Species Catalogue for Fishery Purposes. No. 4, Vol. 3. FAO, Rome, pp. 36–215.
- Tan SK & Woo HPM (2010) A Preliminary Checklist of the Molluscs of Singapore. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore, 78 pp.

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Fig. 1. Approximately 3-cm individual from Big Sister Island on 27 November 2019.



Fig. 2. Approximately 5-cm example from Lazarus Island on 16 November 2020.

(Photographs by: Vincent Choo).