

Biodiversity Record: An orbicular burrfish, *Cyclichthys orbicularis*, at Sentosa

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Subject: Orbicular burrfish, *Cyclichthys orbicularis* (Teleostei: Tetraodontiformes: Diodontidae).

Subject identified by: Kelvin K. P. Lim and Tan Heok Hui.

Location, date and time: Singapore Strait, Sentosa Island at Tanjong Beach; 24 July 2021; 1140 hrs.

Habitat: Marine. Reclaimed sandy beach fringed by coral reef.

Observer: Justin David Patch.

Observation: A dead example of 13 cm standard length (Fig. 1) was found washed up at the beach by the second author. The specimen was donated to the Lee Kong Chian Natural History Museum at the National University of Singapore, where it was preserved.

Remarks: *Cyclichthys orbicularis* attains a maximum length of 15 cm standard length, and inhabits coastal seas from the surface down to 150 m, usually over soft bottoms but also over sand-rubble bottoms and coral reef. It is distributed in the Indo-west Pacific from East Africa and the Red Sea eastwards through Indonesia and the Philippines, to southern Japan and Australia (Leis, 2001: 3962; Allen & Erdmann, 2012: 1098). It is distinguished from other burrfishes and porcupinefishes by a combination of the following morphological features: 1) spines on back (of head and body), sides and belly short, with three roots, erect and not movable; 2) no spine on the caudal peduncle; 3) usually nine caudal fin rays; 4) no spots on the fins of adults; 5) three spines over the dorsal margin of each eye; 6) one spine between the nostrils; 7) four spines over the back between the pectoral fin bases; 8) eight to nine spines on the back and head in front of the dorsal fin base; 9) a short, movable spine near the corner of the mouth; and 10) clusters of black spots on the upper parts of the body (Leis, 2001: 3960).

This appears to be the first record of *Cyclichthys orbicularis* in Singapore, where only members of the confamilial genus *Diodon* (the porcupinefishes) have hitherto been recorded (see Fowler, 1938; Wang & Lim, 2011). As the species has a wide distribution in the Indo-west Pacific, its presence in Singapore's waters was not unexpected.

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Fig. 1. Dorsal (top), lateral (middle) and ventral (bottom) views of the dead *Cyclichthys orbicularis* from Sentosa. (Photographs by: Tan Heok Hui).