

Biodiversity Record: New Singapore record of the snake-eel, *Yirrkala misolensis*

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Subject: Misol snake-eel, *Yirrkala misolensis* (Teleostei: Anguilliformes: Ophichthidae).

Subject identified by: Kelvin K. P. Lim.

Location and date: Singapore Strait off East Coast Park; 25 June 2025.

Habitat: Marine. Shallow coastal sea.

Observers: Heok Hui Tan and Kelvin K. P. Lim.

Observation: One live individual of 32.8 cm total length (Fig. 1) was presented to the Lee Kong Chian Natural History Museum by an anonymous source. It has been preserved and deposited in the Zoological Reference Collection under the catalogue number ZRC 68510. Morphological features include the following: Tip of tail hard and pointed, finless. Dorsal and anal fins present, pectoral fins absent. Gill openings lateral. Snout pointed, head narrows evenly to snout tip in dorsal aspect. Dorsal fin very low, its origin behind the gill opening by less than a head length. Head and body with many dark-brown blotches and spots that become obscured towards the rear end. Dark blotches above the lateral line merge into one another well anterior to the anus.



Fig. 1. Lateral view of the anterior and posterior ends of *Yirrkala misolensis*, ex-situ (Photograph by: Heok Hui Tan).

Remarks: This seems to be the first record of *Yirrkala misolensis* in Singapore (see Fowler, 1938; Jaafar et al., 2024). These eels burrow into substrates and tend to be rarely seen or collected. Its occurrence in Singapore waters is not unexpected as the species is widely distributed in the tropical western Pacific, with records from the Ryukyu Islands, Taiwan, the Philippines, Vietnam, Indonesia, Fiji, and Australia; as well as the Indian Ocean in the Maldives and the Nicobar Islands (Chiu et al., 2022; McCosker, 2022). The maximum known total length is 51 cm (Chiu et al., 2022).

Literature cited:

Chiu Y-C, Chen H-M & Shao K-T (2022) Additional description on morphology of the Misol snake eel from Taiwan, with four verified barcodes of life sequences. *Zootaxa*, 5189(1): 114–121.

Fowler HW (1938) A list of fishes known from Malaya. *Fisheries Bulletin*, Singapore, 1: 1–268.

Jaafar Z, Low JK & Lim KKP (2024) Checklist of marine fish species with their category of threat status for Singapore. In: Davison GWH, Gan JWM, Huang D, Huang WS, Lum SKY & Yeo DCJ (eds.) *The Singapore Red Data Book. Red Lists of Singapore Biodiversity*. Third edition. National Parks Board, Singapore, pp. 649–670.

McCosker JE (2022) Family Ophichthidae. In: Heemstra PC, Heemstra E, Ebert DA, Holleman W & Randall JE (eds.) *Coastal Fishes of the Western Indian Ocean. Volume 2*. South African Institute for Aquatic Biodiversity, Makhanda, South Africa, pp. 101–137.