

Biodiversity Record: New Singapore record of the trevally, *Turrum coeruleopinnatum*

Jiayuan Lin

Email: jylin2002@gmail.com

Recommended citation. Lin J (2024) Biodiversity Record: New Singapore record of the trevally, *Turrum coeruleopinnatum*. Nature in Singapore, 17: e2024020. DOI: 10.26107/NIS-2024-0020

Subject: Onion trevally, *Turrum coeruleopinnatum* (Teleostei: Carangiformes: Carangidae).

Subject identified by: Jiayuan Lin.

Location, date and time: Singapore Strait, East Coast Park, Bedok Jetty; 4 December 2023; 1754 hrs.

Habitat: Marine. Shallow coastal sea beside concrete jetty of around 4 m depth, with silty seabed and sparse coral rubble.

Observer: Jiayuan Lin.

Observation: One example (Fig. 1) of around 15 cm total length (tip of snout to tip of caudal fin) was caught on a phytoplankton-mimic sabiki rig. It has been donated to the Lee Kong Chian Natural History Museum at the National University of Singapore, where it has been preserved and assigned the catalogue number ZRC 65547 as part of the Zoological Reference Collection.



Fig. 1. Lateral view of the *Turrum coeruleopinnatum*, freshly caught and alive (Photograph by: Jiayuan Lin).

Remarks: This appears to be the first record of *Turrum coeruleopinnatum* in Singapore waters (see Fowler, 1938; Tweedie, 1940; Ng et al., 2015). Its presence there is not surprising as it has a wide distribution in the Indo-West Pacific (Smith-Vaniz, 1999). Nearby, the species has been recorded by Sinoda et al. (1978, as *Caranx diversa*) from the South China Sea around Horsburgh Lighthouse.

It is possible that this species has previously been confused with the morphologically similar Malabar trevally (*Platyvaranx malabaricus*). *Turrum coeruleopinnatum* may be distinguished from *Platyvaranx malabaricus* by having a wide protrusion of the upper lip around the symphysis compared to it being narrow in *Platyvaranx malabaricus* (see

Kimura et al, 2022; see Fig. 3). Additionally, *Platycaranx malabaricus* has a small area that is unscaled anteriorly above the pectoral fin base, while this area is scaled in *Turram coeruleopinnatum* (see Smith-Vaniz, 1999, as *Carangoides caeruleopinnatus* and *Carangoides malabaricus*; Fig. 2).



Fig. 2. Lateral view of the right side of *Turram coeruleopinnatum* showing coverage of scales in the area above the pectoral fin (indicated by arrow). Fig. 3. Frontal view of the snout showing the upper jaw symphysis (indicated by arrow) (Photographs by: Jiayuan Lin).

Literature cited:

- Fowler HW (1938) A list of fishes known from Malaya. Fisheries Bulletin, Singapore, 1: 1–268.
- Kimura S, Takeuchi S & Yadome T (2022) Generic revision of the species formerly belonging to the genus *Carangoides* and its related genera (Carangiformes: Carangidae). Ichthyological Research, 69: 433–487.
- Ng HH, Tan HH, Lim KKP, Ludt WB & Chakrabarty P (2015) Fishes of the eastern Johor Strait. Raffles Bulletin of Zoology, Supplement No. 31: 303–337.
- Sinoda M, Lim PY & Tan SM (1978) Preliminary study of trash fish landed at Kangkar fish market in Singapore. Bulletin of the Japanese Society of Scientific Fisheries, 44: 595–600.
- Smith-Vaniz WF (1999) Carangidae: Jacks and scads (also trevallies, queenfishes, runners, amberjacks, pilotfishes, pampanos, etc.). In: Carpenter KE & Niem VH (eds.) FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific. Volume 4. Bony Fishes Part 2 (Mugilidae to Carangidae). FAO, Rome, pp. 2659–2756.
- Tweedie MWF (1940) Additions to the collection of fishes in the Raffles Museum. Bulletin of the Raffles Museum, Singapore, 16: 68–82.