

Biodiversity Record: New Singapore record of the surgeonfish, *Acanthurus auranticavus*

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Subject: Orange socket surgeonfish, *Acanthurus auranticavus* (Teleostei: Acanthuriformes: Acanthuridae).

Subject identified by: Zeehan Jaafar.

Location, date and time: Singapore Strait, Sisters Islands Marine Park, off Pulau Subar Darat; 15 November 2021; 1407 hrs.

Habitat: Marine. On a 10 m tall artificial reef structure, at around 4 to 6 m depth.

Observers: Shu Qin Sam, Yuichi Preslie Kikuzawa, Chin Soon Lionel Ng and Tai Chong Toh.

Observation: One example of about 22 cm total length was observed and videographed swimming around an artificial structure.



Fig. 1. Fronto-lateral view of the left side of the subject swimming downwards. Fig. 2. View of the right side of the subject swimming upwards. Note the distinct white bar at the base of the caudal fin (Screen grabs from a video clip by Shu Qin Sam).

Remarks: *Acanthurus auranticavus* is widespread in the Indo-West Pacific, having been recorded from the Philippines, Indonesia, north-eastern Australia, Maldives and Seychelles, and typically inhabits shallow reefs, occurring in lagoons as well as the outer reefs (Randall, 2001). It is distinguished from its congener *Acanthurus mata*, previously recorded at Sisters' Islands and Pulau Satumu (Low, 2015; Low, 2016), by the presence of a distinct white bar at the base of the caudal fin (Randall, 2001; Allen & Erdmann, 2012).

Compared to other species of *Acanthurus* in the Southeast Asian area with a white bar at the caudal base, *Acanthurus auranticavus* differs in lacking distinct black markings on the body, white lips, yellow caudal fin lobes and black opercular membrane, and in having an orange caudal spine socket (see Randall, 2001; Allen & Erdmann, 2012). As the turbid water did not allow clearer views (Figs. 1 & 2), the colour of the caudal spine socket cannot be discerned. Therefore, the identification should be regarded as tentative.

Regardless, this seems to be the first confirmed record of an *Acanthurus* species with a white bar at the base of the caudal fin in the territorial waters of Singapore (see Fowler, 1938; Herre, 1940; Tweedie, 1940). *Acanthurus nigricauda*, with an indeterminate status in Singapore (Lim, 2023), also has a white band at the caudal fin base in life but has two black streaks on its side which would show up in underwater pictures (see Randall, 2001).

The observed individual could have been feeding on the algae that has colonised the surface of the artificial reef structure, or utilising it as a shelter.

Literature cited:

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