NATURE IN SINGAPORE 16: e2023078 Date of Publication: 30 August 2023 DOI: 10.26107/NIS-2023-0078 © National University of Singapore

## Biodiversity Record: Occurrence of the surgeonfish, Acanthurus nigricauda, in Singapore

Kelvin K. P. Lim

Lee Kong Chian Natural History Museum, National University of Singapore, Singapore 117377; Email: <a href="mailto:nhmlimkp@nus.edu.sg">nhmlimkp@nus.edu.sg</a>

**Recommended citation.** Lim KKP (2023) Biodiversity Record: Occurrence of the surgeonfish, *Acanthurus nigricaudus*, in Singapore. Nature in Singapore, 16: e2023078. DOI: 10.26107/NIS-2023-0078

Subject: Blackstreak surgeonfish, Acanthurus nigricauda (Teleostei: Acanthuriformes: Acanthuridae).

Subject identified by: Kelvin K. P. Lim.

Location and date: Singapore, obtained from a fish market by Norman Smedley in February 1932.

Habitat: Marine.

**Observer:** Kelvin K. P. Lim. Based on examination of material at the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum, at the National University of Singapore. A portion of the ZRC consists of material from the Raffles Museum (see Tan, 2016).

**Observation:** One preserved specimen of about 19 cm standard length (tip of snout to caudal base), with the accession number ZRC 304, was examined.



Fig. 1. Lateral view of the preserved Acanthurus nigricauda [ZRC 304]. (Photograph by: Kelvin K. P. Lim).

**Remarks:** The specimen ZRC 304 was originally identified by A. W. C. T. Herre in July 1940 as *Hepatus gahm* (= *Acanthurus gahm*). It formed the basis for the only Singapore record of the monk surgeonfish, *Acanthurus gahm* (see Tweedie, 1940 as *Hepatus gahm*). The presence of a black stripe in front of the caudal peduncle spine identifies it as *Acanthurus nigricauda*, a sister taxon of *Acanthurus gahm* that has a wide distribution in the Indo-west Pacific. *Acanthurus gahm* is confined to the Red Sea, Gulf of Aden and the Arabian Sea (Kuiter & Debelius, 2001).

*Acanthurus nigricaudus* can be expected to occur in Singapore waters due to its wide distribution in the Indo-west Pacific from East Africa across Indonesia and tropical Australia to Line, Tuamotu and Pitcairn Islands, and north to the Ryukyu Islands (Allen & Erdmann, 2012). However, because the specimen was acquired from the market, there is the likelihood that it was not actually taken in the waters within the political boundaries of Singapore, and could even have originated from much further afield. Therefore, its status in the country should be regarded as indeterminate.

## Literature cited:

Allen GR & Erdmann MV (2012) Reef Fishes of the East Indies, Vol. 3. Tropical Reef Research, Perth, Australia, pp. 857–1292.

Kuiter R & Debelius H (2001) Surgeonfishes, Rabbitfishes and their relatives. A Comprehensive Guide to Acanthuroidei. TMC Publishing, Chorleywood, UK, 208 pp.

Tan KYL (2016) Of Whales and Dinosaurs. The Story of Singapore's Natural History Museum. NUS Press, Singapore, xix + 266 pp.

Tweedie MWF (1940) Additions to the collection of fishes in the Raffles Museum. Bulletin of the Raffles Museum, Singapore, 16: 68-82.