

Biodiversity Record: A doubtful record of the lipstick tang, *Naso elegans*, in Singapore

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Subject: Indian lipstick tang / elegant unicornfish, *Naso elegans* (Teleostei: Acanthuriformes: Acanthuridae).

Subject identified by: Kelvin K. P. Lim.

Location, date and time: Singapore, purchased at a fish market by Norman Smedley in January 1932.

Habitat: Presumably marine.

Observer: Kelvin K. P. Lim. Based on examination of a specimen at the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum, at the National University of Singapore. It is one of a group of specimens that used to belong to the Raffles Museum, and the National Museum of Singapore, transferred to the National University of Singapore in the 1970s, and now part of the ZRC (see Tan, 2014).

Observation: One preserved example (Fig. 1) of about 27 cm standard length (tip of snout to caudal base), was accessioned as ZRC 309.



Fig. 1. Lateral view of preserved *Naso elegans* (ZRC 309) from a fish market in January 1932. (Photograph by: Kelvin K. P. Lim)

Remarks: This specimen was reported by Tweedie (1940) as *Naso lituratus*, the Pacific lipstick tang. It has since been re-identified as the Indian Ocean sister species, *Naso elegans*. *Naso elegans* can be distinguished from its Pacific counterpart by its yellow dorsal fin, and dusky to black anal fin. In contrast, *Naso lituratus* has a dorsal fin that is black anteriorly and along its base, and an anal fin that is yellow (see Kuiter & Debelius, 2001). *Naso elegans* occurs from East Africa and the Red Sea eastwards to the Andaman Sea, western Sumatra, south Java, Bali, as well as the Christmas and Cocos-Keeling Islands. *Naso lituratus* occurs from the South China Sea to the Hawaiian Islands and the eastern Pacific. It also occurs in the eastern end of the Indian Ocean along the western coast of Australia (Kuiter & Debelius, 2001; Randall, 2001; Allen & Erdmann, 2012). At Bali, where both species are sympatric, *Naso lituratus* was observed to greatly outnumber *Naso elegans* (see Kuiter & Debelius, 2001).

Herre (1940) recorded two examples of *Naso lituratus* of 206 and 216 mm standard length ‘collected on Singapore reefs’ in 1937. These specimens are supposed to be deposited at the California Academy of Sciences in San Francisco, USA, where they have been catalogued as CAS-SU(ICH) 14099. The second author visited there in June 2023 but could not locate them. As Singapore lies at the western edge of the South China Sea, the Pacific lipstick tang, *Naso lituratus*, is expected to be the species occurring there.

Because of its known geographical range, the natural occurrence of *Naso elegans* in Singapore is highly unlikely, and should be considered doubtful. The specimen ZRC 309, being acquired at a market, was likely to have been imported. It could have been caught in the Andaman Sea or the west coast of Indonesia.

Both *Naso lituratus* and *Naso elegans* are well-known ornamental fish (Michael, 2005), and wild-caught individuals are imported into Singapore from the Philippines and Indonesia for the aquarium trade (personal observations).

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Literature cited:

- Allen GR & Erdmann MV (2012) Reef Fishes of the East Indies. Vol. III. Tropical Reef Research, Perth, Australia, pp. 857–1292.
- Herre AWCT (1940) Additions to the fish fauna of Malaya and notes on rare or little known Malayan and Bornean fishes. Bulletin of the Raffles Museum, Singapore, 16: 27–55.
- Kuiter RH & Debelius H (2001) Surgeonfishes, Rabbitfishes and their Relatives. A Comprehensive Guide to Acanthuroidei. TMC Publishing, Chorleywood, UK, 208 pp.
- Michael SW (2005) Reef Aquarium Fishes. 500+ Essential-to-know Species. TFH Publications, Neptune City, New Jersey, USA, 448 pp.
- Randall JE (2001) Surgeonfishes of Hawai’i and the World. Mutual Publishing and Bishop Museum Press, Honolulu, Hawai’i, 123 pp.
- Tan KYL (2014) 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.