

Three species of sergeant damselfishes off Pulau Satumu

Jeffrey K. Y. Low

jeffrey_low@nparks.gov.sg / cat64fish@yahoo.com

Subjects: Bengal sergeant, *Abudefduf bengalensis* (Teleostei: Pomacentridae);
Scissortail sergeant, *Abudefduf sexfasciatus* (Teleostei: Pomacentridae);
Indo-Pacific sergeant, *Abudefduf vaigiensis* (Teleostei: Pomacentridae).

Subjects identified by: Author.

Location, date and time: Singapore Strait off Pulau Satumu; 26 & 27 April 2016.

Habitat: Marine. Fringing coral reef with rocky, rubble and slightly silty substrate, at depth of around 3-5 m.

Observer: Author.

Observation: Three different species of the genus *Abudefduf* were photographed on the reef. They are distinguished from each other as follows: The Bengal sergeant (*Abudefduf bengalensis*), depicted in Fig. 1, is pale yellowish-green with five to six relatively narrow blackish bars on the head and body. The scissortail sergeant (*Abudefduf sexfasciatus*), shown in Fig. 2, has five comparatively broad black bars on its body and a broad black stripe across the length of each caudal fin lobe. The third species, the Indo-Pacific sergeant (*Abudefduf vaigiensis*), illustrated in Fig. 3, is similar to the scissors-tail sergeant but lacks the black bars on the caudal fin. Instead there is a strong yellow hue on the front part of its back. While all three species were observed in the day, the *Abudefduf vaigiensis* in Fig. 3 was photographed at night during a dive to observe coral spawning. The fishes were all adults, each around 16 cm in total length, and swimming about in midwater alongside conspecifics, congeners, and other species of fish.

Remarks: All three species of *Abudefduf* featured here are widely distributed in the Indo-west Pacific, and common in the East Indian region (Allen & Erdmann, 2012: 562-564), as well as in Singapore waters particularly on coral reefs (Khoo & Tay, 1990: 75 - *Abudefduf sexfasciatus* as *Abudefduf coelestinus*, *Abudefduf vaigiensis* as *Abudefduf saxatilis*; Lim & Low, 1998: 124). A fourth species, the blackspot sergeant (*Abudefduf sordidus*) has been recorded from Singapore waters at the Sisters Islands, but appears to be relatively uncommon there (Tan, 2014: 333). It is distinguished from its congeners in having a black saddle blotch over the upper caudal peduncle.

According to information compiled on Fishbase (2017) and Allen (1991: 20, 25, 27, 188-189), the three featured species have overlapping habitat and nutritional requirements. *Abudefduf bengalensis* occurs singly or in small groups in inshore and lagoon coral reefs at depths of 1-6 m. It feeds on algae, gastropods and small crabs, and is highly territorial. *Abudefduf sexfasciatus* inhabits inshore and offshore coral or rocky reefs, and also in shallow reef flats or crests, at depths of 1-20 m, usually where tall soft coral or hydroid colonies are present. It often forms groups at midwater, aggregating high in the water column to feed on zooplankton and algae. *Abudefduf vaigiensis* inhabits the upper edge of outer reef slopes and inshore rocky reefs at depths of 1-15 m. Although tending to be benthic-pelagic, feeding on benthic algae and small invertebrates, it often forms aggregations in midwater to feed on zooplankton.

References:

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Fig. 1. Lateral view of Bengal sergeant.



Fig. 2. Lateral view of scissortail sergeant.



Fig. 3. Lateral view of Indo-Pacific sergeant.

Photographs by Jeffrey K. Y. Low