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Cover: A gravid praying mantis just before she laid her ootheca—digital art on procreate. © Aakanksha Komanduri.



Potential first record of parrotfish *Scarus zufar* (Randall & Hoover, 1995) (Actinopterygii: Labriformes: Scaridae) from Indian waters, at Netrani Island, Karnataka, India

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Parrotfish are a diverse group of largely coral reef, rocky reef or seagrass dependent fish (Abu-Taweel et al. 2023). Taxonomically, they are placed within the subfamily Scarinae in the family Labridae, which also includes the wrasses (Westneat & Alfaro 2005). Members of the genus *Scarus* comprise 52 living species (Parenti & Randall 2011) while Nair & Kumar (2015) have listed 10 species from the genus from Indian waters. Parrotfish are functionally important species on coral reefs, due to their role as both grazers and bioeroders (Mumby 2009). In this note, we record the new occurrence of *Scarus zufar* (Randall & Hoover, 1995) from Indian waters.

Scuba surveys were conducted in March and April of 2023 at Netrani Island, a small (0.26 km²) rocky island 18 km from the town of Murudeshwar in the Uttara Kannada district of Karnataka, India. The reefs around the island are predominantly rocky with encrustations of coral, but a few areas harbour complex coral growth with large colonies of *Porites*. We surveyed six sites around the island at a depth range between 8 m and 15 m. We observed 15 individuals of the species of interest in our 32, 50 x 5 m transects across the sites.

We were unable to collect a specimen, so we used

images to identify the species. We conclude that this parrotfish is likely *S. zufar* owing to its colouration and morphological characteristics, which based on the original description by Randall & Hoover (1995) include: a yellow patch at the base of the tail and a reddish pectoral fin in adult individuals; truncated caudal fin with produced lobes; a green band running from the lower lip and chin extending to and surrounding the eye and the turquoise blue dorsal fin margin (Image 1). These characteristics are not seen in other parrotfish, making it highly likely that the observed specimen was *S. zufar*. To confirm this identity of the species, a specimen would have to be collected.

Scarus zufar (Randall & Hoover, 1995) was originally described from the coast of Oman and, for two decades, was thought to be endemic to this area of the Arabian Sea. It belongs to a clade that includes the wide-ranging *Scarus psittacus* and *S. russelli* as well as the more restricted *S. collana* (Choat et al. 2012). The species was later recorded in Pakistan (Psomadakis et al. 2015) and recently in Bangladesh (Hasan & Parvej 2020). Previous surveys of fish diversity around Netrani did not record the species, possibly misidentifying it as *S. hoelferi*, a

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Image 1. Images of *Scarus zufar* adults taken at Netrani Island. 1—Diagnostic features such as the truncated pectoral fin | 2—Yellow patch at the base of the tail | 3—Green band around the eye are clearly visible. © a—Abhishek Jamalabad | b—Jeremy Josh.

species restricted to the Atlantic Ocean (Zacharia et al. 2008; Thomas et al. 2011). *S. zufar* was also not recorded in biodiversity surveys in other reef areas along India's West coast, such as Malvan Marine Sanctuary (De et al. 2021) and Grande Island (Sreekanth et al. 2015) or in the Gulf of Mannar, a major coral area on India's eastern coast (Ramesh et al. 2020).

The species was seen on multiple occasions on our surveys, making its omission in previously published lists surprising. This record shows a need for further in-depth research, and consistent, rigorous observation of the biodiversity and ecology of the reefs of western India.

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