



<http://dx.doi.org/10.11646/zootaxa.3785.3.10>

<http://zoobank.org/urn:lsid:zoobank.org:pub:55866B34-DF88-4847-87ED-3F5420FF6CFB>

## ***Plectranthias alcocki*, a new anthiine fish species (Perciformes: Serranidae) from the Arabian Sea, off southwest India**

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### **Abstract**

A new species of anthiine fish, *Plectranthias alcocki* n. sp. is described and illustrated based on two specimens, (63.7–72.5 mm SL), recently collected from deep-waters of the Arabian Sea, off Kollam, Kerala, India. The following combination of characters distinguishes it from all other congeners: Dorsal-fin rays X, 15; anal-fin rays III, 7; pectoral-fin rays 14, all unbranched; pelvic-fin rays I, 5; lateral-line complete, the pored lateral-line scales 28; scales above lateral line to origin of dorsal fin 1; scales dorsally on head extending to posterior nostrils; no scales on maxilla or chin; gill rakers 5 + 11 (2 + 7 developed); circumpeduncular scales 10; fourth dorsal spine longest, 2.8 (2.6) in head length (HL), longest dorsal-fin soft ray (second) 2.4 (2.7) in head length; body depth 34.4 (35)% SL; head length 46 (49.8)% SL; orbital length 8.6 in SL; margin of preopercle finely serrate, the serrae 33 (28), ventral edge without antrorse spines; dorsal fin continuous and notched; first anal-fin spine 4.9 (5.6) in HL, second anal-fin spine 2.2 (2.6) in HL; pelvic fins relatively short, 4.0–4.3 in SL; the dorsal fin with a black blotch at base of fourth to eighth spines, one at base of the last three spines, and two at base of soft portion of fin, the dark pigment extending onto adjacent body.

**Key words:** *Plectranthias alcocki*, new species, Serranidae, Arabian Sea, India

### **Introduction**

The serranid fish genus *Plectranthias* (Serranidae: Anthiinae) was established by Bleeker (1873) for *Plectropoma anthioides* Günther, 1872, and contains small benthic species found in tropical and subtropical seas on coral or rocky reefs at depths of 20 to 300 m, hence not often caught in trawls. They are poorly represented in museum collections and nearly half of the valid species are known from only one or two specimens (Randall, 1980; Heemstra & Randall, 2009). Recently, Wu *et al.* (2011) described two new species based on single specimens from Taiwan.

Randall (1980) recognized 30 species in an early revision of the genus. Forty-eight valid species of *Plectranthias* are currently known (Eschmeyer & Fong, 2013), of which only 13 occur in the Indian Ocean for at least part of their range (Heemstra & Randall, 2009). The most recently described species is *P. flammeus* Williams *et al.*, (2013) from the Marquesas Islands, French Polynesia. Only one species, *Plectranthias intermedius* (Kotthaus, 1973), is known from the Arabian Sea (Manilo & Bogorodsky, 2003). The purpose of this paper is to describe the second Arabian Sea species, *Plectranthias alcocki*, currently known only from off Kollam, southwest coast of India.

*Plectranthias winniensis* Tyler, 1966 differs from *Plectranthias alcocki* n. sp. in certain meristic counts and morphometrics such as: dorsal fin rays (X, 15–17), deeply notched dorsal fins, pectoral rays 16–18, gill raker count 4–6 + 11–15, pelvic fin length 1.5–1.8 in HL, orbit diameter 2.7–3.0 in HL and its colour pattern (having a spot in the base of last three anal rays) and absence of cirri on dorsal-fin spines (Heemstra & Randall, 2009).

*Plectranthias alcocki* and *P. nanus* Randall, 1980 also share similar characters, including the same pectoral-fin ray and gill-raker counts, single row of large scales between 5<sup>th</sup> dorsal spine and lateral line, 4<sup>th</sup> spine longest in both species and maxilla reaching a vertical at rear edge of eye. They differ in dorsal soft-ray count (15 for *P. alcocki*, 16 for *P. nanus*), lateral line count (28 for *P. alcocki*, 16–22 for *P. nanus* and incomplete), antrorse-spine count (no antrorse spine in *P. alcocki*, 2 spines in *P. nanus*) and very large eye in *P. alcocki* (4.0–4.3 in HL), compared with *P. nanus* (3.4–4.0 in HL) (Randall, 1980; Heemstra & Randall, 2009).

## Acknowledgments

Authors are grateful to John E. Randall (Bishop Museum, USA) for confirmation of the species identity and providing valuable reprints. We wish to thank N. G. K. Pillai and E. M. Abdussamad (CMFRI, India) for the support. We thank the Centre for Marine Living Resources and Ecology and the Ministry of Earth Sciences, India for providing funding support. Thanks are also due Rahul G. Kumar for reviewing an early draft of the manuscript. Thanks also to anonymous reviewers for their helpful comments on the manuscript.

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