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Reprinted from **Biogeography**

Vol.3, pp.1-100

August 29, 2001



The Biogeographical Society of Japan

Fresh Color Notes for *Priacanthus prolixus* Starnes, 1988 from the West Coast of India (Perciformes: Priacanthidae)

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Abstract. The color of *Priacanthus prolixus* Starnes, 1988, based on color photographs of fresh specimens, is described for the first time. The body coloration is similar to that in related species, having a red tinge. However, the pectoral fin of the former has a strong yellowish tinge, *P. prolixus* being the third *Priacanthus* species with such pectoral fin coloring (also in *P. tayenus* Richardson, 1846 and *P. zaiserae* Starnes & Moyer, 1988).

Key words: Priacanthidae, *Priacanthus prolixus*, fresh color.

Introduction

The priacanthid fish, *Priacanthus prolixus* Starnes, 1988, originally described on the basis of 12 specimens from the Arabian Sea, is endemic to that area (Starnes, 1988). Although Starnes (1988) provided a detailed morphological description of the species, such was based on preserved specimens only and therefore lacked any description of life colors.

During surveys of the Indian fish fauna in 1998 and 2000, 9 examples of *P. prolixus* were collected from Malpe and Mangalore, Karnataka, and Trivandrum, Kerala, on the west coast of India, and color photographs were taken before preservation in formalin and alcohol. These photographs provided

the basis for the color description of *P. prolixus* given here.

Counts and measurements followed Hubbs and Lagler (1947) and Starnes (1988). Standard length is abbreviated as SL. Institutional codes follow Leviton *et al.* (1985), with an additional institutional abbreviation as follows: Division of Fisheries Sciences, Miyazaki University, Japan (MUFS).

Priacanthus prolixus Starnes, 1988

(Fig. 1)

Priacanthus prolixus Starnes, 1988: 175, fig. 23 (type locality: off Somalia).

Material ($n = 9$, 113-177 mm SL, all from west coast of India, Arabian Sea). MUFS 16760, 16902, 16948-16949, 4 specimens, 113-165 mm SL, Malpe, Karnataka, trawled less than 80 m, coll. by Iwatsuki

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Fig. 1. Color photograph of *Priacanthus prolixus* Starnes, 1988. MUFs 19735, 177 mm in standard length, Trivandrum, Kerala, southwestern India. Blackish parts of the anal fin resulted from staining by the ink of squids collected together with the specimen.

Table 1. Counts and proportional measurements of *Priacanthus prolixus* expressed as thousandths of standard length.

	This study <i>n</i> = 9	Holotype USNM 290660	Starnes (1988) <i>n</i> = 10*
Standard length (mm)	113-177	209	99-239
Counts			
Dorsal-fin rays	X, 13-14	X, 13	X, 13-14
Anal-fin rays	III, 14-15	III, 14	III, 14-15
Pectoral-fin rays	18-19	19	18-21
Lateral-line scales	78-82	75	75-82
Scales above / below lateral line	9-11 / 37-40	11 / 35	8-11 / 35-40
Gill rakers	5-6 + 22-24 = 27-30	7 + 24 = 31	6-7 + 22-24 = 28-31
Measurements			
Body depth at sixth dorsal spine	288-339	315	289-343
Body depth at first anal spine	266-309	300	-
Body width	102-134	140	130-162
Head length	308-309	297	294-305
Snout length	78-91	87	71-91
Orbit diameter	112-125	115	113-141
Interorbital width	63-70	72	66-79
Upper-jaw length	135-171	152	-
Predorsal-fin length	290-302	298	-
Preanal-fin length	520-536	560	-
Prepelvic-fin length	306-342	329	-
Dorsal-fin base length	566-593	585	-
First dorsal-fin spine length	54-68	broken	-
Second dorsal-fin spine length	75-95	broken	-
Third dorsal-fin spine length	103-122	95	-
Longest dorsal-fin spine length (6th)	114-155	114	115-182
Longest dorsal-fin ray length (2nd)	155-192	143	121-197
First anal-fin spine length	82-96	78	-
Second anal-fin spine length	102-115	95	-
Third anal-fin spine length	115-133	103	-
Longest anal-fin ray (2nd)	159-169	143	119-165
Longest pectoral-fin ray length	175-211	196	163-195
Pelvic-fin spine length	178-197	189	-
Longest pelvic-fin ray length (2nd)	233-266	281	248-302
Caudal-peduncle length	142-159	152	121-157
Caudal-peduncle depth	62-75	72	-
Caudal-fin length	238-268	243	-

* counts based on 11 specimens (Starnes, 1988).

and Motomura, 28 Nov. 1998; MUFS 19084-19086, 3 specimens, 160-173 mm SL, Mangalore central fish market, Mangalore, Karnataka, coll. by Iwatsuki and Motomura, 30 March 2000; MUFS 19735-19736, 2 specimens, 165-177 mm SL, Trivandrum, Kerala, coll. by Iwatsuki and Motomura, 3 Apr. 2000.

Color of fresh specimens. Based on color transparencies of MUFS 16760 (118 mm SL) and 19735 (177 mm SL, Fig. 1): upper sides of head and trunk tinged with dark red, becoming bright red on lower sides; 7 indistinct darker red spots present on lateral line from below 6th dorsal fin spine to below last dorsal fin soft ray; eye, except for pupil, bright red; interior of mouth blackish-red; base of dorsal fin tinged with red, becoming paler dorsally; upper parts of dorsal fin without black margins; yellowish patches on distal margin of membranes between dorsal fin rays; pectoral fin reddish-yellow, without melanophores; pelvic fin spine and rays whitish; a black spot on membranes at base of pelvic fin, remainder of membranes tinged with red; anal fin uniformly tinged with deeper red than dorsal fin; narrow black margin on posterior of caudal fin, remainder of fin uniformly deep red.

Remarks. The characters of the specimens examined in this study were consistent with those of the holotype and as given in the original description of *Priacanthus prolixus* by Starnes (1988) (see Table 1 for counts and proportional measurements as thousandths of SL). According to Starnes (1988), *P. prolixus* is closely related to *P. arenatus* Cuvier, 1892, *P. hamrur* (Forsskal, 1775) and *P. meeki* Jenkins, 1904, the group being defined as having crescentic caudal fin and higher counts of dorsal-fin and anal-fin rays. Detailed morphological descriptions and comparisons of these species were given by Starnes (1988).

The fresh body color of *P. prolixus* was similar to that in the above 3 species, having a tinge of red. However, *P. prolixus* differs from the latter in having a reddish-yellow pectoral fin (vs clear or slightly pink in the latter; Starnes, 1988) and the dorsal, anal and

caudal fins without melanophores (although a small number of melanophores appear in the dorsal and anal fins of preserved specimens of *P. prolixus* vs scattered melanophores in the others; Starnes, 1988). Although the distributional ranges of *P. hamrur* and *P. prolixus* in the Arabian Sea overlap and the overall body appearances of the 2 species are very similar (Starnes, 1988), they can be confidently distinguished from each other by the pectoral, dorsal, anal and caudal fin coloration when fresh.

All *Priacanthus* species except for *P. tayenus* Richardson, 1846 and *P. zaiserae* Starnes & Moyer, 1988, have been described as having clear to pinkish pectoral fins (Starnes, 1988), those in *P. tayenus* and *P. zaiserae* being clear or tinged slightly yellow, and bright yellow, respectively (Starnes, 1988). Accordingly, *P. prolixus* is now recognized as the third *Priacanthus* species having a yellowish pectoral fin.

Comparative material examined. *Priacanthus prolixus*: USNM 290660, holotype, 209 mm SL, off Somalia (11°21' N, 51°09' E), 1 May 1987, coll. by G. J. Small.

Acknowledgments

We are most grateful to G. S. Hardy (Thames, New Zealand) who read the initial manuscript and offered helpful comments. We greatly appreciate M. N. Venugopal and A. Chakraborty (Department of Fishery Biology, College of Fisheries, Mangalore, India) for their assistance during our visit to India. We thank S. L. Jewett, L. Palmer, S. J. Raredon and S. Smith (USNM) for opportunities to examine the type of *Priacanthus prolixus* and Y. Motomura (Miyazaki, Japan) for her assistance. This study was supported in part by grants awarded to the first author by the Fujiwara Natural History Foundation (Tokyo, Japan), the Sasakawa Scientific Research Grant from the Japan Science Society (Tokyo, Japan) and the Ito Foundation for the Advancement of Ichthyology (Tokyo, Japan).

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(Accepted April 14, 2001)