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ON THE OCCURRENCE OF *STEINEGERIA RUBESCENS* JORDAN AND EVERMANN (BRAMIDAE : PISCES) IN THE INDIAN OCEAN*

By G. LUTHER

Central Marine Fisheries Research Institute, Mandapam Camp

ONE specimen of *Steinegeria rubescens* Jordan and Evermann (Plate, fig. 1) measuring 618 mm. standard length (682 mm. fork length) was landed on 1-3-1962 at Port Blair (Andamans) along with other fishes including *Thunnus* (*Neothunnus*) *itosibi*, *T.* (*N.*) *macropterus*, *Katsuwonus pelamis*, *Xiphias gladius*, *Histiophorus* spp., and *Isurus glaucus* by a small powered boat equipped with long-lines, fishing off Chowra Island (08° 27′ N. Lat., and 93° 02′ E. Long.). As the present report is the first record of occurrence of *Steinegeria rubescens* in the Indian Ocean some details of the specimen are given in this account. The specimen has been deposited in the Reference Collection Museum of the Central Marine Fisheries Research Institute, Mandapam Camp (Reg. No. CMFRI-F 178/492).

S. rubescens, a rare species of the bramid fishes, was first described in 1887 based on a single juvenile specimen 96.5 mm. standard length from the Gulf of Mexico. The first adult, measuring** 635 mm., was recorded only in 1958 by Mead and Maul from the Gulf of Mexico caught on tuna long-line. They also reported on two more specimens measuring 27.5 mm. from Hawaii and 54.0 mm. from Gulf of Mexico. Abe (1961 & 1962) recorded four specimens measuring 555 mm., *ca.* 585 mm., *ca.* 630 mm. and *ca.* 670 mm., believed to be from the tropical parts of the Pacific caught by long-line along with tunas, and shipped to the Central Wholesale Market of Tokyo.

Although Mead and Maul (1958) included *S. rubescens* in a separate new subgenus, of the genus *Taractes*, Abe (1961) retained the old generic name for the species and the latter terminology is adopted in this report.

SALIENT FEATURES

D. 30 ; A. 21 ; P. 19+1 (small) ; V. 6 ; G.R. 2+1+7 (left), 1+1+6 (right) ; L. l. (left) : 46+3 (enlarged) +1 (keeled), (right) : 45+3 (enlarged)+1 (keeled).

Greatest depth of body (at origin of dorsal fin) 39.32 per cent in standard length. Origin of ventral fin flush with the ventral contour of body at the hind end of the flat triangular prepelvic area and in advance of the upper base of pectoral fin. Three consecutive scales of the lateral line over the caudal peduncle notably enlarged contributing to a caudal keel, the middle one nearer to the posterior enlarged scale (Plate, fig. 2). Each enlarged scale bears posteriorly a vertical bony ridge, smoothly

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** Standard length has been given throughout.

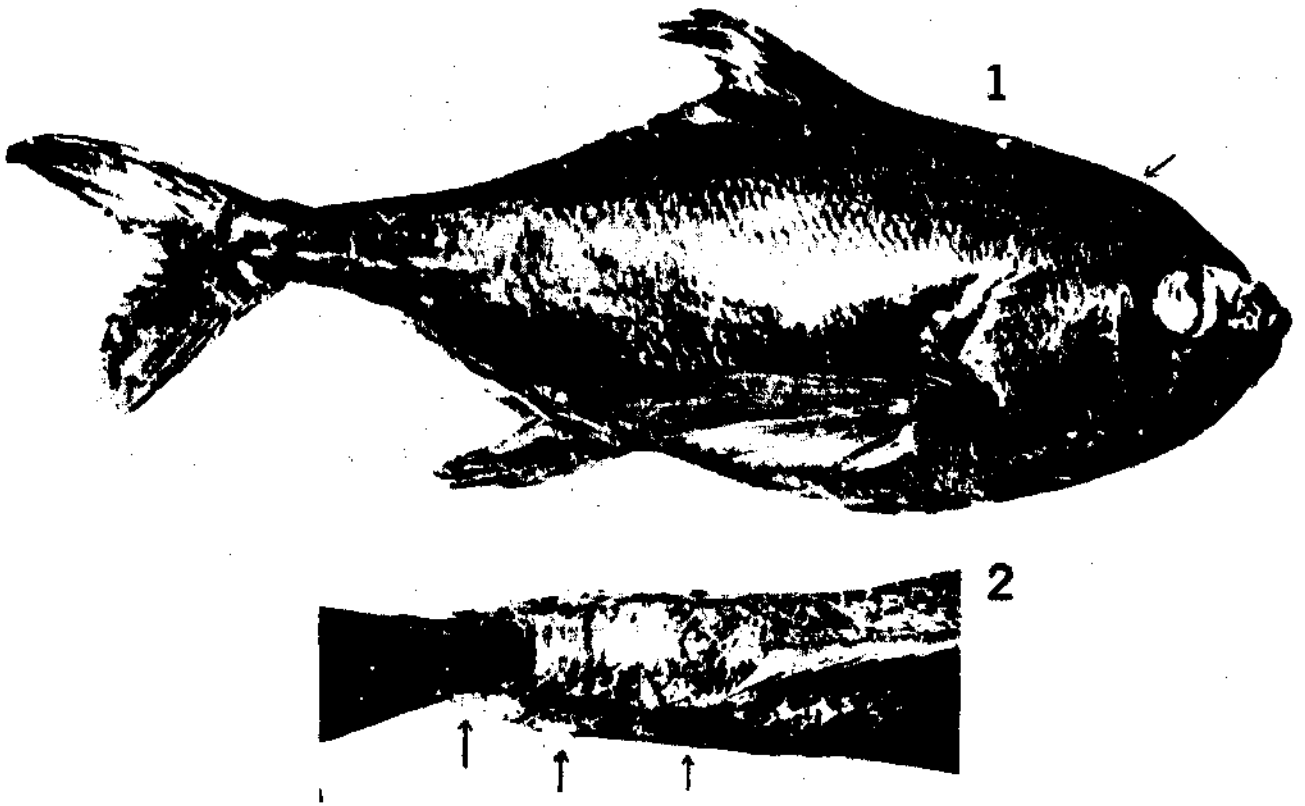

FIG. 1. *Steinegeria rubescens* Jordan and Evermann. FIG. 2. Dorsal view of posterior portion of *S. rubescens* to show the bony ridges over the caudal peduncle (the right posterior ridge partly broken). (Photograph by Mr. S. P. D. Ghanshani).

curved anteroposteriorly and pointed posteriorly, the ridge on the right anterior enlarged scale smaller. An oval scaleless area present above and before the upper edge of the gill opening. A caudal pit present near the upper and lower origin of caudal fin. The axillary process of the ventral fin 60% of the length of ventral fin. The axillary process of the pectoral fin broad and short. Teeth in both the jaws small, in 3-4 irregular rows anteriorly and in a single row posteriorly. Vomer toothless, palatine toothed and tongue smooth. Colour brownish-grey on preservation in formalin.

Measurements representing projected lengths of some important morphometric characters as per cent of standard length of the specimen are as follows : Greatest depth of body (at origin of dorsal fin) 39.32 ; head length 30.74 ; horizontal diameter of eye 7.44 ; vertical diameter of eye 8.09 ; snout length 6.63 ; interorbital space 8.41 ; width of end of maxilla 4.20 ; snout to origin of pectoral fin 30.09 ; snout to origin of dorsal fin 38.35 ; snout to origin of anal fin 61.65 ; pectoral fin length 38.03 ; ventral fin length 13.59 ; midcaudal ray length 10.36 ; least depth of caudal peduncle 6.14 ; breadth of caudal peduncle between centre of foremost enlarged scale on either side 8.89 ; breadth of caudal peduncle just behind foremost enlarged scale on either side 8.41 ; breadth of caudal peduncle between centre of hindmost enlarged scale on either side 6.96 ; length of longest gillraker (left) 3.55.

General Remarks

While characterizing the adult of *Taractes rubescens* (=*S. rubescens*) Mead and Maul (1958) stated that the four enlarged scale spines on the caudal peduncle of the juvenile persist in the adult in the form of strong single keel. The figure of the adult specimen (size 635 mm.) given by them also shows only the prominent keel with no trace of the individual enlarged scales. But in the present specimen which is about the same size as the above specimen the three enlarged scales that form the caudal keel remain distinct. Similar observations have been made by Abe (1961) who reported besides three enlarged scales, the rare occurrence of a fourth enlarged scale on the caudal keel without comment on the continuous keel of the Mexican adult.

It is not known whether any adult specimen of *S. rubescens* from the Atlantic would show a discontinuous caudal keel formed by three distinct scales as in the Indo-Pacific specimens, or those from Indo-Pacific a continuous keel like the Atlantic counterpart. If future observations reveal that the nature of formation of the caudal keel in this species from these two geographical areas is constant, and different from each other as known at present, those specimens from the Indo-Pacific region may well be placed under a separate species.

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References

ABE, T. 1961. Notes on some fishes of the subfamily Braminae, with introduction of a new genus, *Pseudotaractes*. *Jap. Journ. Ichth.*, **8** (3/4) : 92-99.

————. 1962. Notes on some fishes of the subfamily Braminae, with introduction of a new genus, *Pseudotaractes* (contd.). *Ibid.*, **8** (5/6) : 101-114.

*JORDAN, D. S. AND EVERMANN, B. W. 1887. Description of six new species of fishes from the Gulf of Mexico, with notes on other species. *Proc. U.S. Nat. Mus.*, **9** : 466-477.

MEAD, G. W. AND MAUL, G. E. 1958. *Taractes asper* and the systematic relationships of the Steinegeridae and Trachyberycidae. *Bull. Mus Compar. Zool. Harvard Coll.*, **119** : (6) : 393-417.

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(Photo by E. G. Silas—taken in September 1956)