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ON THE OCCURRENCE OF *SAURIDA UNDOSQUAMIS* (RICHARDSON) OFF VISAKHAPATNAM *

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Two species of lizard fishes of the genus *Saurida* Cuv.; *Saurida tumbil* (Bloch) and *Saurida nebulosa* Cuv. & Val.—synonym *S. gracilis* (Quoy and Gaimard)—werel described by Day (1878) from Indian waters. These two species along with a third one, *Saurida grandisquamis* Gunther were described by Weber and Beaufort (1913) from the Indo-Australian Archipelago.

Norman (1935) in his revision of the fishes of the genus *Saurida* has described five species, *gracilis, tumbil, undosquamis, filamentosa* and *elongata* from the Indo-Pacific. He makes a note of the 5 specimens of *Saurida undosquamis* (93 to 185 mm. long) in the Indian Museum collected near the mouth of the river Hooghly, Bengal, which differed from the other Indo-Pacific forms in having a longer pectoral fin and in the absence of the characteristic dark caudal spots and is of the opinion that these may prove to present a distinct race. It was interesting to find a large number of specimens of S. *undosquamis* among the catches while the author was on board the Government of India trawlers in August 1963, off Visakhapatnam (17°-40' N, 83°-30' E) in 25-40 metres depth. The present record extends the range of distribution of this species further south on the east coast of India.

The specimens of *S. undosquamis* collected off Visakhapatnam differ from those described by Norman (1935) in having a longer pectoral-fin-and also from those in the Indian Museum, referred to above, in the presence of the characteristic dark caudal spots.

S. undosquamis has been observed to occur regularly in the catches of the trawlers in subsequent months. From this it appears that this species is quite common on the East Coast of India and possibly on the west coast also.

The following are the diagnostic characters of the Indian examples based on 31 specimens collected off Visakhapatnam.

Description :

B. 14-15 ; D.ll-13 ; A.10-13 ; P.14-15 ; V.9 ; Ll.45-50 ; L.Tr.3H/6.

Elongate, subcylindrical, anteriorly depressed as also the head. Height 6.57 to 8.50, head 3.45 to 3.95, caudal 3.93 to 5.06 in standard length. Eyes with broad adipose lids, diameter 4.50 to 5.72 in the length of head, 1 to 1.42 diameters from the end of snout, 1.05 to 1.22 diameters apart. Gape of mouth very wide, slightly oblique, the jaws equal. Cleft of mouth extending 1.33 to 1.50 diameters behind the orbit. *Fins* : Dorsal 11 to 13 ; short, the length of its base 1.68 to 1.90 in head ;

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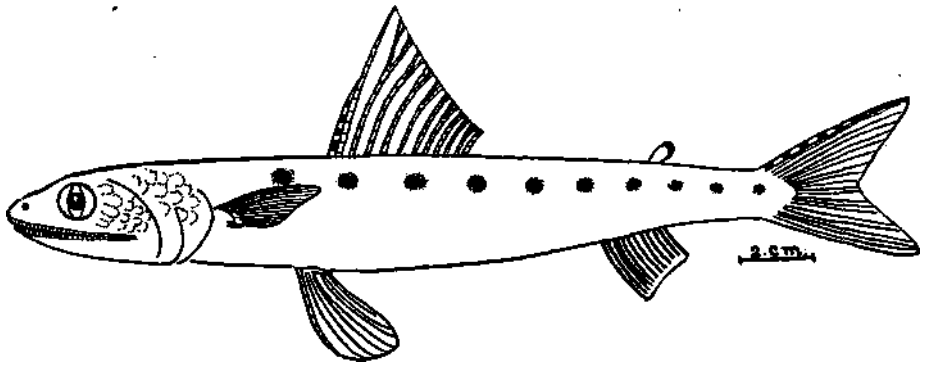
about midway between snout and base of caudal, its origin behind origin of ventrals. Second dorsal ray longer than head without snout, following rays decreasing rapidly in size. Third dorsal ray 1.12 to 1.40 in head. Distance of the small adipose fin from origin of dorsal somewhat less than distance of that origin from snout and situated over the last two or three anal rays. Anal 10 to 13 ; short with its posterior part below adipose fin. Pectoral with 14 to 15 rays ; 1.45 to 1.73 in head. The tip of pectoral extends beyond the vertical through the origin of the ventrals and upto 11th or 12th scale of lateral line. Ventrals 9 ; slightly shorter than head without snout. Caudal deeply forked. Scales over the body and head, with some on the base of the caudal fin. Scales deciduous, falling off easily while handling the specimens. Lateral line : 45 to 50 scales in the lateral line. The keel is most developed over the posterior third of the body. 16 to 17 scales between occiput and dorsal, 4 horizontal rows on cheeks. *Teeth:* Several rows of slender, pointed, unequal, partly depressible and moveable teeth in the upper jaw uncovered by the thin lips, the internal the largest and external smallest. The teeth on the mandibles are of the same character, the largest rows internal and smallest external. They are more numerous than in the upper jaw and placed on a surface looking upwards and outwards. Similar teeth in two narrow bands on each side of the palate, the inner bands the shortest. Outer bands of palatine teeth usually in two rows anteriorly, where the two bands are widely separated. Tongue and gill arches covered with fine teeth, those on the latter (rudimentary gill rakers) numerous and arranged in 3 or 4 series. *Colour*: Brown-gray, lighter below. Often a series of 8 to 10 dark spots along sides, also along front edge of dorsal and upper edge of tail.



***Saurida undosquamis* (Richardson)**

Distribution : Smith (1949) gives the distribution as ' Tropical Indo-Pacific'.

The ranges in variation of ratios of different body proportions and meristic counts of *S. undosquamis* are shown in the Table. Morphometric measurements and meristic counts were taken from 31 specimens, 118 to 240 mm. in standard length, preserved in 5% formalin.

The description of *Saurida grandisquamis* Gunther by Weber and Beaufort (1913) giving 12 rays for pectoral seems to be erroneous. According to Norman (1935) *S. grandisquamis* Gunther is a synonym of *S. undosquamis* (Richardson) and if there had been any deviation from the normal count of 14-15 pectoral rays, Norman would have mentioned this. In this connection it may be mentioned that Hardenberg's specimens of *S. grandisquamis* Gunther from the Java Sea are said to have the normal number of 14-15 pectoral rays (Hardenberg, 1933).

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TABLE

Ranges in variation of ratios of different body proportions and meristic counts in 31 specimens of *S. undosquamis* collected off Visakhapatnam

Character	Range	Mean
1. Standard length/Length of head	3.45-3.95	3.77
2. Standard length/Length of caudal	3.93-5.06	4.58
3. Standard length/Height of body	6.57-8.50	7.58
4. Head length /Eye diameter	4.50-5.72	4.96
S. Snout length/Eye diameter	1.00-1.42	1.18
6. Interorbital distance/Eye diameter	1.05-1.22	1.09
7. Standard length /Length of pectoral	5.14-6.48	6.03
8. Head length/Length of pectoral..	1.45-1.73	1.59
9. Head length/Height of third dorsal ray	1.12-1.40	1.23
10. Head length/Length of base of dorsal ..	1.68-1.90	1.79
Meristic Counts		
11. Branchiostegals	14-15 (15)	14.54
12. Dorsal fin rays*	11-13(12)	11.87
13. Pectoral fin rays	14-15 (14)	14.22
14. Ventral fin rays	9	9
15. Anal fin rays	10-13 (12)	11.64
16. Scales in lateral line	45-50 (47)	47.03
17. L.T.r. ..	3H/6	31-4/6
18. Numberofscalesbetweenocciputanddorsal..	16-17 (16)	16.32
19. Number of transverse rows of scales on cheeks	4	4
20. Number of scales in the lateral line upto which the pectoral extends	11-12(11)	11.41

*** Last two rays of dorsal fin supported by a single pterygophore counted as one. • Figures in brackets indicate the modal values for meristic counts.**

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