

**NOTES ON TWO SPECIES OF FLAT-HEADS (PLATYCEPHALIDAE :  
PISCES) FROM THE TRAWL GROUNDS OF THE SOUTH-WEST  
COAST OF INDIA**

By K. C. GEORGE\*

*Central Marine Fisheries Research Institute*

FLAT-HEADS, members of the family *Platycephalidae* are known to be distributed in the seas and estuaries of the Indo-West Pacific region. Day (1878) has dealt with 7 species from Indian waters. Munro (1955) recorded 8 species from the Gulf of Mannar and coastal waters of Ceylon. Weber and De Beaufort (1962) have considered 21 valid species and 1 doubtful species from the Indo-Australian Archipelago of which at least 7 species are reported from the Indian waters. Rao (1966) added one more species *P. bengalensis* from the Bay of Bengal. Few of the species form a fairly significant element of the ground fish community along the south-west coast of India.

*Platycephalus scaber* is reported to contribute about 10% by weight of the miscellaneous fish component of the trawl catches at Cochin (Tholasilingam *et al.* 1964). Recent studies have revealed the presence of another species in the trawl fisheries off Cochin and the southern grounds off Quilon and Muttom. The isolation of a second species from the commercial catches of the region posed a problem regarding the correct identities of the two concerned species. These two species resemble each other in one major external character namely, presence of spiny scutes along the entire length of the lateral line. This particular aspect seems to have caused some confusion with regard to the specific identification, mainly because literature referring to the Indian region species mention only one species, *P. scaber* with spines along the entire length of the lateral line. However, two more species, *P. maculipinna*, (Regan, 1905) and *Thysanophrys portuguesus*, (Smith, 1961) are reported with the above character.

After scrutiny of the two local commercial species it has been possible to identify them as *P. maculipinna* Regan and *P. scaber* (Linnaeus), the dominant species at Cochin being *P. maculipinna* hitherto treated as *P. scaber* and the other being the real *P. scaber* met with in more numbers from grounds off Quilon and further south as far as Muttom. *P. maculipinna* with its robust body and brownish hue could easily be identified by the black blotch on its first dorsal, the long preopercular spine and the thin lateral line scutes. *P. scaber* has a comparatively thin body and is of lighter colour. Its first dorsal is clouded black but without a blotch and the preopercular spine is short. Caudal peduncle is dorso-ventrally compressed than round.

Fourteen specimens of *P. maculipinna* of 190-226 mm. total length range and 16 specimens of *P. scaber* of 190-276 mm. range collected at Cochin and Quilon trawl grounds were studied to elucidate and compare their taxonomic characters. Brief

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\*Present address : C.M.F.R. Substation, Ernakulam, Cochin-16, Kerala, India.

descriptions of the species with figures to illustrate the taxonomic differences are given below.

***Platycephalus maculipinna* Regan (Fig. 1)**

*Platycephalus maculipinna* Regan, *J. Bombay nat. Hist. Soc.* 16 (2), 1905 : 323-324, Pl. A, Fig. 3.

*Thysanophrys scaber* Fowler, *J. Bombay nat. Hist. Soc.* 33, 1928 : 117.

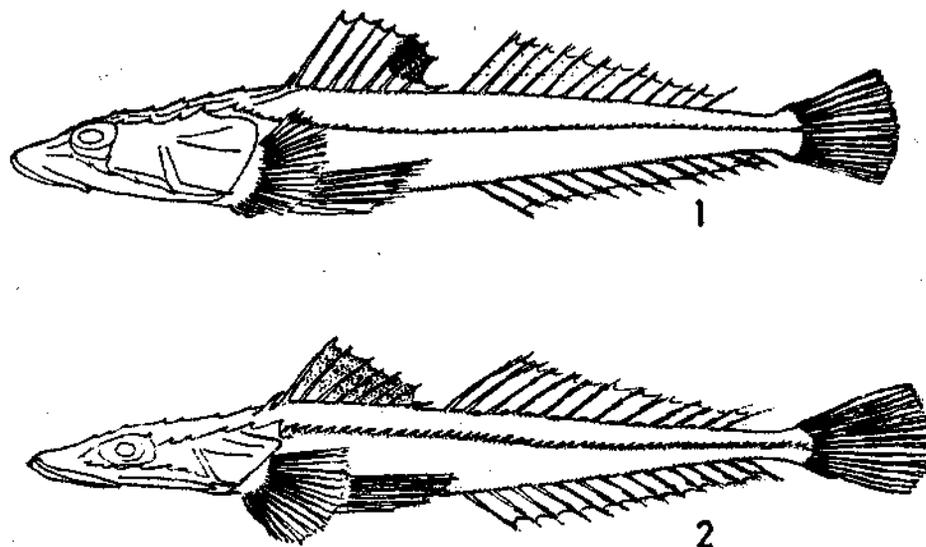
*Platycephalus maculipinna* Blegvad, *Dan. Sci. Invest. in Iran*, Part 11, 1944 : 196.

D1.IX ; D2.12 ; A.13-14 ; P.20-21 ; V.1.5.

Height 7.3-9.5 in standard length and 9.1-11.2 in total length. Head 2.9-3.1 in standard length and 3.5-3.7 in total length. Eye 4.4-5.4 in head and 1.2-1.5 in snout. Snout spatulate. Breadth of head 1.7-1.9 in length of head. Length of preopercular spine 3.6-4.2 in head. Small spiny scutes are present along the entire length of the lateral line, numbering 53-55. Gill rakers 9 (total count on the first gill arch on the right side) and rarely 8.

Fresh specimens brownish above and white below. Preserved specimens take a brownish violet tinge above and dull white below. First dorsal with a black blotch between the 6th and 8th spines. Second dorsal rays with their tips black and with dusky spots on the fin membrane. Pectoral and anal lightly spotted. Pelvic and caudal with blackish margins.

*Locality* : Trawl grounds off Cochin and Quilon, generally at medium depths, up to 44 mm.



FIGS. 1-2. Showing the salient taxonomic features of: (1) *Platycephalus maculipinna* Regan (200 mm. total length) and (2) *P. scaber* (L.), 255 mm. total length.

**Platycephalus scaber** (Linnaeus) (Fig. 2)

*Platycephalus scaber* (L) Weber and De Beaufort, *The Fishes of the Indo-Australian Archipelago*, XI; 1962: 140-42, with synonymy.

DI. IX; D2.12; A. 12-13; P.18-21; V.1.5.

Height 8.1-10.5 in standard length and 9.3-12.0 in total length. Head 3.0-3.2 in standard length and 3.5-3.7 in total length. Eye 4.5-5.6 in head and 1.2-1.4 in snout. Breadth of head 1.8-2.3 in its length. Snout narrow and angular. Preopercular spine short, 6.4-8.9 in length of head. Lateral line spiny along its entire length. 52-54 robust spiny scutes. Gill rakers 7, sometimes a rudimentary 8th gill raker is met with. Caudal peduncle dorso-ventrally compressed than round.

Colour in fresh specimens whitish grey dorsally and white below. Black regular dots along lateral line, head and body. First dorsal, clouded with black. Soft dorsal and anal fin rays with rows of bold black dots which give a barred appearance. Pectoral, lower half dusky, upper with rows of light spots. Pelvic and caudal dusky and black at extremities.

*Locality*: Trawl grounds off Cochin, Quilon and Muttom (18-55 m.).

## REMARKS

*Platycephalus scaber* (Linnaeus) was originally described as *Cottus scaber* Linnaeus and later generally considered under genus *Platycephalus* Bloch. The species has also been dealt with under genera *Thysanophrys* Seale and *Grammoplites* Fowler. In the list of synonymy given by Weber and De Beaufort (1962) *Thysanophrys scaber* is also included. However the present author is of opinion that Fowler's species should be considered as a synonym of *P. maculipinna* because the description of the species by Fowler (*op. cit.*) from Bombay shows that the species dealt with by him has long (4 in head) preopercular spine and a black blotch on the first dorsal, characteristic of *P. maculipinna*. Tholasilingam *et al.* (1964) actually dealt with *P. maculipinna* from Cochin which is the dominant species at this centre, while treating it as *P. scaber*, and thus the distribution of *P. maculipinna* stands extended to the south-west coast of India, from Muscat (type locality) through Gulf of Oman and Bombay coast.

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