

JUVENILE STAGES OF A FILE-FISH ASSIGNED TO *PARAMONACANTHUS CHOIROCEPHALUS* (BLEEKER)

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A brief description of two juvenile stages of a file-fish is given. A close study of their fin ray counts and the arrangement of spinnules on the dorsal spine revealed their nearness to *Paramonacanthus choirocephalus* (Bleeker). Similarities exhibited by these specimens to other allied species are discussed.

Except for some of the recent distributional records of file-fishes by Venkataraman and George (1964) Pardhan *et al.* (1964), Mahadevan and Nayar (1965) and Jones and Kumaran (1965), there appears to be no details regarding their early juvenile stages from the Indian coastal waters. Berry and Vogele (1961) while describing the file-fishes (Monacanthidae) of the Western North Atlantic, made reference to juvenile stages of the species and were of the view that the late juvenile and adult stages tend to adopt inshore or benthic offshore habitats.

The specimens described in the present communication were collected from the shallow inshore waters of Tuticorin from a beach seine locally called 'ola valai'. One juvenile measuring 21 mm was collected on 15-5-1969. Subsequently

Body measurements of the juveniles in millimetres

	21 mm size	50 mm size
1. Standard length	16	39
2. Snout to origin of dorsal spine	6	15
3. Snout to anterior margin of eye	4	10
4. Diameter of orbit	2	4
5. Distance between origin of dorsal spine and soft dorsal	6	11
6. Depth of caudal peduncle	2	6
7. Snout to tip of pelvic spine	11	25
8. Body depth at the origin of dorsal fin	8	20
9. Length of dorsal spine	5	11
10. Snout to pectoral base	7	13
11. Number of dorsal fin rays	28	28
12. Number of anal fin rays	28	28
13. Number of pectoral fin rays	12	12

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one more specimen measuring 50 mm was collected on 27—11—1969. The various body measurements and fin ray counts of juveniles examined are given below.

Both the specimens are characterised by the presence of movable pelvic spine and a single large isolated dorsal spine, which are diagnostic of the Family Monacanthidae. In the specimens examined, the spinnules on the dorsal spine are noticed in two rows in the posterior region and are curved downward. Pigmentation in the 21 mm juvenile is throughout the body, but the maximum concentration appears to be on the snout, above pectoral, below the dorsal fin and on the caudal peduncle (Fig. 1). This sort of clear pigmentation is however lacking in the 50

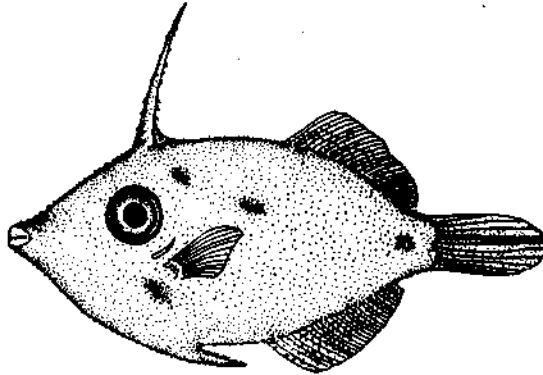


FIG. 1 *Paramonacanthus choirocephalus*-juvenile, 21 mm.

mm stage, where a uniform brownish colour is observed. But, from a close study of the fin ray counts such as dorsal, anal and pectoral, it appears that both the juveniles belong to the same species. By taking into consideration the characters such as the fin ray counts and spinnule arrangement on the dorsal spine, the present specimens examined are closely identified with *Paramonacanthus choirocephalus* (Bleeker).

Day (1878) described five species of Monacanthidae from the seas around India. Although Bleeker (as quoted by Day *op. cit.*) described the species of *P. choirocephalus* as having numerous fleshy appendages on the sides of the body, Day's specimens did not possess any such appendages. However, no mention has been made of the condition in juveniles by these authors, perhaps due to the absence of juveniles in their collections. No such character was observed in either of the juvenile specimens examined at present.

Munro (1955) described seven species of Monacanthidae (=Aluteridae) from the Indo-Ceylon waters. According to his description two species *viz.*, *P. choirocephalus* and *Leputa cingalensis* Fraser-Brunner exhibit much similarity in their

fin ray counts. But the possibility of assigning the present specimens to *L. cingalensis* is ruled out since they differ in the arrangement of spinules on the dorsal spine. Moreover *L. cingalensis* has four longitudinal black bands on the body laterally as found in the six specimens measuring 34 to 50.5 mm in standard length examined by Paradhan *et al.* (1964). This character is wanting in the case of the juveniles measuring 50 mm observed at present.

Of the seventeen species of Monacanthidae described by Weber and Beaufort (1962) from the Indo-Australian archipelago three species viz., *P. choirocephalus*, *Monacanthus tomentosus* (Linnaeus) and *Monacanthus chinensis* (Bleeker) have more or less similar number of fin ray counts in the dorsal, anal and pectoral. According to the description of *P. choirocephalus*, the front border of the first dorsal spine has a row of tubercles or smaller blunt spinules, those near the tip sometimes bifid and its posterior part with two rows of distant rather stray retrorse spines. This character is much similar to that of the present specimens examined, except that the spinules are not bifid. This shows that the specimens observed are very close to the identity of *P. choirocephalus*, because this character is wanting in the other two species viz., *M. tomentosus* and *M. chinensis*.

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