

# A NOTE ON THE LARVAE OF *SYNGNATHUS CYANOSPILUS* BLEEKER FROM THE PULICAT LAKE

THE development of the pipe-fishes belonging to the family Syngnathidae from Indian waters has been studied by Jones and Menon (1953), Padmanabhan (1961) and Sudarsan (1966). Bal and Pradhan (1951) gave the seasonal occurrence of the larvae of *Syngnathus cyanospilus* in Bombay waters. On 23-9-1968 the author came across one male *Syngnathus cyanospilus* Bleeker measuring 103 mm. in total length in a small meshed drag net operated off Annamalaicheri in Pulicat lake, Madras State. The brood pouch of the specimen had a length of 30 mm. and was situated on the tail between the first and seventeenth osseous rings. 249 larvae were found within the brood pouch. This number is much more than the number of embryos which are 'arranged one layer thick in 6 longitudinal and about 24 transverse rows' in the brood pouch of *Syngnathoides biaculeatus* (Sudarsan, *op. cit.*) and the 110 embryos and 10 unfertilized eggs found in the brood pouch of *Ichthyocampus carce* (Jones and Menon, *loc. cit.*).

Since the larva of *Syngnathus cyanospilus* does not seem to have been described earlier, it was thought worthwhile to present a short description of the same.

The larvae observed were all in a very advanced stage of development, having hatched out of the egg and the yolk sac completely absorbed. They very much resembled the adult having acquired the specific number of dorsal fin rays and osseous rings (Figure 1). The larva measured 8.7 mm. in total length, with 14 osseous rings

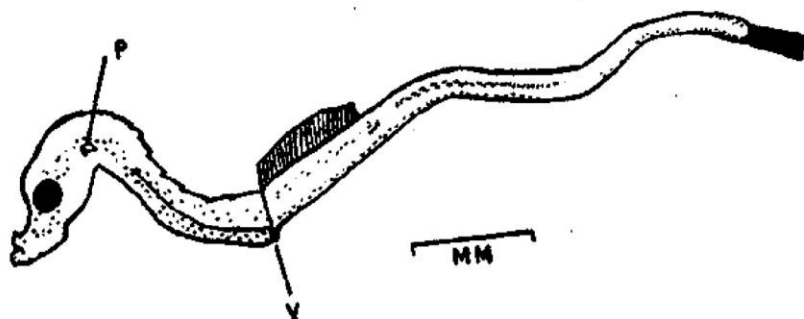


FIG. 1

FIG. 1. Larva of *Syngnathus cyanospilus* Bleeker. P. Pectoral fin, V. Vent.

on the trunk and 35 rings on the tail. The dorsal fin was situated immediately above vent and had 21 rays. The pectoral and caudal fins were well developed with 7 rays in the latter and the former without any. A large number of black chromatophores were found scattered on the snout, lower jaw and all over the trunk region; on the tail portion the chromatophores were concentrated near the lower edge and middle of the body. A few chromatophores were seen scattered on the dorsal, pectoral and caudal fins.

The measurements (in mm.) of the different parts of the larva were: Total length, 8.7; Snout length, 0.431; Trunk length, 2.9; Diameter of eye 0.313; Head length, 1.31; Distance between hind edge of the eye and middle of pectoral fin 0.529.

The proportions of head length in trunk length (2.2 times), trunk length in total length (3 times) and diameter of eye in head length (4.2 times) were different from those given for the adult by Day (1878). In the adult the length of snout is equal to the distance between the hind edge of the eye and middle of pectoral fin (Day, *loc. cit.*), whereas in the larva described here, the snout length was less. Adult colouration and the ridge across the side of the head were undeveloped.

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#### REFERENCES

- BAL, D. V. AND PRADHAN, L. B. 1951. *J. Univ. Bombay*, 20, New series, Sec. B, Part 3 : 1-15.  
DAY, FRANCIS. 1878. *Fishes of India*. William Dawson & Sons Ltd., London. (Reprinted in 1958).  
JONES, S. AND MENON, P. M. G. 1953. *J. Zool. Soc. India*, 5 (2) : 255-267.  
PADMANABHAN, K. G. 1961. *Bull. Central Res. Inst. Univ. Kerala, Ser. C. Nat. Sci.*, 8 : 1-13.  
SUDARSAN, D. 1966. *J. Mar. biol. Ass. India*, 8 (1) : 222-224.