

**ON A SPECIMEN OF TRIPTERYGIID FISH *ENNEAPTERYGIUS NASIMAE* HODA
WITHOUT A PELVIC FIN**

ABSTRACT

A mature male tripterygiid fish *Enneapterygius nasimae* Hoda 1983, 35 mm in total length, without a right pelvic fin collected from the Karachi Coast of Pakistan on November 14, 1979 is reported here.

IN EARLY FISHES, the pelvic fins were located well behind the pectorals, aiding in controlling the vertical level through the water, while in higher teleosts including family Tripterygiidae, they moved forward to the thoracic region (Pl. I A) and in association with the pectorals, provided a 'four-wheel' braking system (Harris, 1938). Reduction or malformation or otherwise abnormally formed pelvics have been reported in many fishes (Marr, 1945; Lea, 1965; Tandon, 1965; Hettler, 1966; Radhakrishnan, 1973; Alvarez-Leon, 1980). The present communication relates to a specimen of the male tripterygiid fish *Enneapterygius nasimae* Hoda 1983, measuring 35 mm in total length, collected along with other tripterygiids from the Karachi Coast of Pakistan at Buleji (66°48'E, 24°51' N) on November 14, 1979. The right pelvic fin of this fish was absent and had not developed (Pl. I B, C), although body colouration and meristic/morphometric characters were found compatible with the previous descriptions of the species (Hoda, 1983). X ray analysis revealed that the right pelvic fin structures were lacking (Fig. 3) and the left pelvic fin was normally supported by its girdle. The right pelvic region did not show any injury or external thickening, being covered uniformly with normal scales.

The meristic and morphometric characters of the abnormal *E. nasimae* are given below :

TL 35.0 mm, SL 28.5 mm. First dorsal fin (D_1): III, first spine height 5 mm, base 4 mm; second dorsal fin (D_2): XIII, first spine height 3.0 mm, base 9.5 mm; third dorsal fin (D_3): 9, third spine height 4.5 mm, base 4.5 mm; anal fin: 20, spine height 3.2 mm, base 12 mm. Origin of anal fin at the level of 6th ray of D_3 ; caudal fin: 13 with 4 procurrent rays, length 6.5 mm. Head length 8.0 mm, breadth 6.5 mm, height 6.5 mm. Snout 3.0 mm; eye orbit 3.5 mm; body depth at D_1 6.0 mm, at D_2 5.0 mm; caudal peduncle 3.0 mm; preanal distance 14.0 mm; predorsal distance till D_1 6.1 mm, till D_2 9.0 mm, till D_3 19.0 mm. Cleft of mouth 4.0 mm, maxillary reaches anterior orbit, interorbital concave 1.0 mm; scales strongly ctenoid, lateral line scales 40 with 16 pored scales, transverse scales 2-1-5. Vertebrae 10 + 24.

Proportional measurements are as follows :

In TL : Body height at D_1 5.83, at D_2 5.83, at D_3 7.00; caudal peduncle 12.67; predorsal at D_1 5.74, at D_2 3.89, at D_3 1.84; preanal distance 2.50.

In SL : Body height at D_1 4.75, at D_2 4.75, at D_3 5.70; caudal peduncle 9.50; predorsal distance at D_1 4.67, at D_2 3.17, at D_3 1.50; preanal distance 2.04.

In HL : Height 1.6 ; body height at D₁ 1.33, at D₂ 1.33, at D₃ 1.60 ; eye 2.29 ; snout 2.67 ; caudal peduncle 2.67 ; pectoral 0.76, caudal 1.14 ; first spine of D₁ 1.60, first spine of D₂ 2.67, third spine of D₃ 1.78. Caudal fin length in pectoral 1.50.

In blenniids the pelvic fins no longer function as pedestal for support in their benthic habitat and thus functionally these fins are the least important. In blenniids there is no selective advantage in having pelvic fins (Springer, 1968 ; Goslin, 1971). The absence of the pelvic fin in this specimen supports this

suggestion. In the absence of mechanical injury, this retardation or malformation in the early stages of development was retarded, but subsequently has little effect on the physiological functioning and growth of the abnormal specimen of *E. nasimae* under study.

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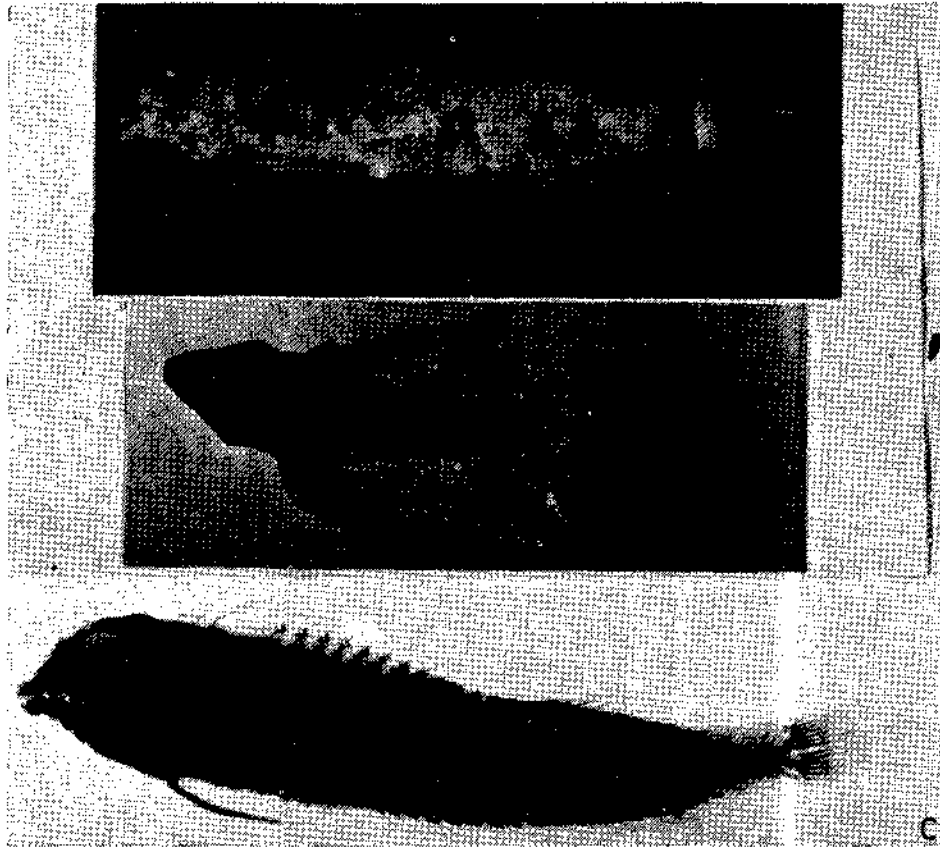


PLATE I A. Female *Euzapterygius nasimae* Hoda. Paratype. 28 mm SL., B. Abnormal male of *E. nasimae* 30 mm TL, showing absence of right pelvic fin and C. X ray photograph of the abnormal male *E. nasimae*.