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# ON A HILL STREAM LOACH, NOEMACHEILUS RUPECULA (McCLELLAND) WITH BIFURCATED ROSTRAL BARBEL AND DEFORMED CAUDAL FIN

During a recent ichthyological survey of Chakrata hills, District Dehra Dun, Uttar Pradesh, the author came across an adult specimen of a hill stream loach *Noemacheilus rupecula* (Mc Clelland) with a bifurcated right rostral barbel and the deformed caudal fin is thick at the base and bifurcated upto nearly half way into two branches.

The cause of bifurcation of the barbel has been explained variously during the past. According to Tandon and Sharma (1971) and Datta and Ghosh (1975) it might be due

Fig. 1. Lateral view of *Noemacheilus rupecula* (Mc Clelland) showing bifurcated rostral barbel and deformed caudal fin.

(Fig. 1). The specimen under study is normal in other characters.

## BIFURCATED ROSTRAL BARBEL

The presence of bifurcated or forked barbel in some siluroid fishes has been reported by Boulenger (1907), Tandon and Sharma (1971), Ovais (1974), Dutta and Ghosh (1975), Ram (1976) Thakur and Munnet (1982) etc. but there is no record of such an amomaly among cobitid fishes. The barbel of the right side to some injury. Tandon and Sharma (1971) tried to explain this in a catfish, *Heteropneustes fossilis*, through experimental regeneration although they failed to produce a forked barbel. Gvais (1974) quoted a personal communication by Greenwood (1972), according to which the abnormality might be congenital or the result of regeneration. The present author also assumes that the existance of such a morphological divergence could be due to congenital defects. It is hard to

conjecture that such a bifurcation could occur by accidental or mechanical injury and a subsequent regeneration.

### Deformed Caudal Fin

The deformity of the fins in carps, catfishes, perches, clupeids etc. has been reported by Hora (1937), Sathyanesan (1962). Sundersingh (1975), Rahman and Raghavan (1977), Nammalwar and Krishnapillai (1977), Baburao and Reddy (1982), Somvanshi and Bapat (1982), Thakur and Munnet (1982), etc. but no reference on loaches is available.

The caudal fin of normal *N. rupecula* is emarginate with rounded corners or lobes. In the present specimen, the upper lobe is sharply pointed while the lower one is cut short with rounded margin. This type of deformity could cettainly occur by some accidental amputation or some injury or by some predatory attack as suggested by Sathyanesan (1962) and Thakur and Munnet (1982).

Such fortuitous variations met in a single specimen, pose taxonomic problems. Hence, it is suggested that such morphological divergences should always be recorded as additional information to taxonomists of a relevant group.

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