

Determination of sexual dimorphism in *Mystus bleekeri* (Day)

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Fishes exhibit well marked dimorphism between two sexes (Haq, 1977). Individuals of two sexes of catfishes of the study areas look similar. No report on sexual dimorphism of fishes is available except for the breeding season, when the gravid females become obvious by the bulged-out belly and the differentiation of sexes. For breeding and culture purposes it is necessary to separate males and females rapidly and accurately by the external characters. It was with this end in view the present research was undertaken.

Jordan & Evermann (1896) reported sexual dimorphism in fishes at maturity while Davis (1959) reported the means of discerning sexes in channel catfish *Ictalurus punctatus*. Breder & Rosen (1966) described an ovipositor in bitterling. Lagler *et al.* (1967) reported that body is an important secondary sexual character. Cross (1967) and Flickinger (1969) determined the sexes in the flathead minnow. Doha (1974) studied the sexual dimorphism of *Glossogobius giuris* and recently Rob & Mirza (1987) described a rapid method of sexing juvenile fishes. The genital pore, the size of the head, the shape of the body, abdomen of the fishes and the body colouration of both the sexes were examined for finding a practical way of discerning the sexes. The area of genital pore was observed to be quite helpful for identification of the sexes (Hossain and Islam, 1983).

During April 2002 and March 2003, 1,300 specimens of *Mystus bleekeri* (Day) were collected from different fish landing centres of Rajshahi. Of these, 594 were males and 706 females. The male:female sex ratio was 1:1.30. The females were found dominant throughout the year except in November, December and January. Identification of the sexes in *M. bleekeri* was done by differences in body shape, genital papilla and colouration. In the female the base of the round genital structure had a round protrusion, which never reached the base of the anal fin. The other distinctions of the female from the male were the body shape and colouration. The abdominal region was always broader and longer. The colour of the female was also darker in comparison with that of the male.

In the male, genital papilla was a soft, elongated structure, broad at the base and gradually tapering towards the end and over 2/3 of this structure hang freely from the body. The tip of the papilla was beyond the base of the first anal fin. The body was elongated, and the colour was light in comparison with that of the female (Fig. 1). The female fish was larger than the male of the same age. The observed dimorphic characters would be helpful in developing any breeding strategies for *M. bleekeri*.

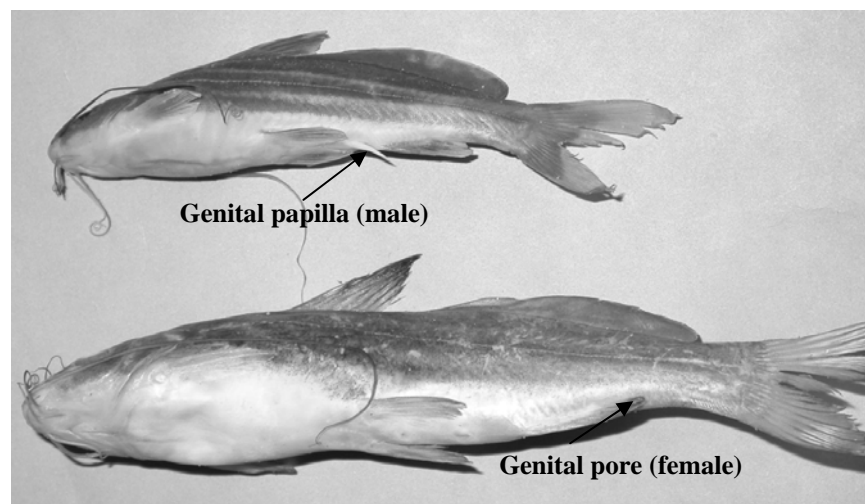


Fig. 1. Sexual dimorphic characters in *M. bleekeri*

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