

**SOME MORPHOLOGICAL AND ANATOMICAL CHARACTERISTICS OF
CLARIAS BRACHYSOMA (GUNTHER) (PISCES: CLARIIDAE) UNDER WILD AND
LABORATORY CONDITIONS**

W.M.T.K. WASALA¹, D.N. GUNAWARDHANA², U. EDIRISINGHE²,
S. NATHANAEL³ AND T.V. SUNDARABARATHY³

¹Post Graduate Institute of Agriculture, University of Peradeniya

²Department of Animal Science, Faculty of Agriculture, University of Peradeniya

³Department of Zoology, Faculty of Science, University of Rajarata

Walking catfish (*Clarias brachysoma*), a highly threatened endemic freshwater fish, is found widely distributed throughout the country. In this study, specimens of catfish were collected from Kotmale Oya of the Mahaweli River to understand their qualitative and quantitative characteristics. This knowledge could be useful to breed them and nurture the fry and fingerlings under captive conditions.

It was observed that captured fish could be easily domesticated after different time periods, when they completely abandon feeding. However, young fish took longer time (nearly 1-2 month/s) than adults (about 1-2 weeks) to adapt to the artificial environment. After acclimatizing they started predating on wild guppy and crustaceans. Condition Factor of the fish collected from the natural habitat (0.0088 ± 0.0002) was significantly higher than the laboratory reared fish (0.0073 ± 0.0002), mainly due to the prolonged acclimatizing period, where they resist feeding completely and depend on their body storage. This indicates the need to develop improved feed rations and/or feeds to achieve an appropriate Condition Factor for breeding them under laboratory conditions.

Gill rakers in catfish were short and stumpy. The number of gill rakers on the 1st gill arch was 18 with much grown gill filaments. Some of the meristic characteristics showed differences from those given in available literature. The digestive track consisted of a distinctive stomach with well-developed spiral valves and highly developed pyloric caecae. Gut content analysis showed detritus and fish larvae. These results imply that walking catfish is a bottom dwelling omnivore (grazing fish).

Walking catfish generally live in the bottom in turbid waters. They have relatively poor eye sight but very sensitive barbels and well developed olfactory organs to locate the prey. Males and females are morphologically similar. However, by observing the genital apparatus they can be easily differentiated. Fecundity is around 50 000 eggs /kg of fish and the ovaries contain eggs of similar shape and size at a specific time, inferring that it is a seasonal spawner.

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