

# Preface

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Aquaculture and Fisheries are both industries serving not only as a source of providing essential nutrition but also, helping in the upliftment of livelihood of the greater human population and in earning foreign exchange. India, after China, is the second largest country in global fish production with aquaculture contributing about 5.68% (30,213 crores). India's share in ornamental fish trade is estimated to be less than 1% of the global trade (0.008%) and a domestic market of Rupees 10 crores. The State of West Bengal, in the forefront, has a share of around 90 percent of the total export earnings from ornamental fish.

The loaches belonging to the family Cobitidae and Balitoridae are classified as aquarium fish due to their beautiful colouration, small size, bright bands, blotches, peaceful nature and hardiness can be reared and bred in aquarium throughout their life span. *Botia* species are highly valued and demanding both as an ornamental and edible fish in the Terai region of Eastern Himalaya of West Bengal, India, a "Hot Spots" for fresh water fish biodiversity. In the Terai region, the existence of *Botia* species is very rare or their occurrence is low throughout the year. Endangered and Vulnerable status of the loaches in the Terai region of the studied area is mainly due to the water quality deterioration. Immediate conservation or rehabilitation of *Botia species* is therefore required from its extinction from the environment.

Thus, Captive breeding was conducted using synthetic hormone WOVA-FH at a dose of 0.025ml/fish in the present study. Barcoding was also done to identify of *Botia* species at molecular level. This technology is very useful for Endangered and Vulnerable species to survive in nature.

Hence, the present study, in the Eastern Himalaya region highlights the status quo of *Botia* species, the conservation steps and market value.

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