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Tropical indigenous ornamental fishes of the Western Ghats of India and the present status of the development of their captive breeding technology

T.V. Anna Mercy

College of Fisheries, Kerala Agricultural University, Panangad, Cochin, Kerala 682506, India

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Abstract

India has a rich diversity of fresh water fishes both in the Western Ghats and North Eastern Hills. The Western Ghats is one of 34 'hotspot' areas in global map. It extends from the tip of Kanyakumari to the River Tapti of South India for a stretch of 1600 Km. Studies carried out under the National Agricultural Technology Project entitled "Germplasm inventory, evaluation and gene banking of fresh water fishes" a data base of indigenous ornamental fishes of the Western Ghats has been prepared. Of the 300 species of fishes inhabiting the different river systems of the Western Ghats, 155 are considered as potential ornamental fishes. Under the project, 90 species of fishes were collected from different river systems of the WG and they were observed for their desirable qualities such as nature of acclimatization in aquariums, compatibility with other species of fishes, food and feeding habits under captivity, level of occurrence in the water column and their behaviour in aquariums. Based on the results 85 of them are recommended as ornamental fishes. Most of them belong to the categories of barbs, loaches, danios, killifishes, hill trout and catopras.

In spite of the abundance of this rich resource, only a few of them have received popularity in the global market. This is due to the lack of awareness and steady supply. The few of species exported from India are collected from the wild and send directly. As a result many of the endemic species have now become endangered. In this context development of captive breeding technology has great relevance. No serious attempt has been made to breed these fishes under captivity, till recently. Under the above-mentioned project captive breeding technology was successfully developed for 10 prioritized species, which is the first of its kind in India. They are Puntius filamentosus, Puntius pookodensis, Puntius melanostigma, Puntius melanampyx, Garra mullya, Danio malabaricus, Chela fasciata, Nemacheilus triangularis, Nemacheilus semiarmatus and Pristolepis marginata. The sexual dimorphism, life history stages and water quality parameters are discussed in the paper substantiating with photographs and video clippings of courtship behaviour and spawning.

*Correspondence: annamercy2002@yahoo.co.in