FISH DIVERSITY IN GRAND ANICUT, RIVER CAUVERY (TIRUCHIRAPALLI, TAMIL NADU)

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Introduction

The Western Ghats of India is one of the major biodiversity hot spot regions of the world containing 84 endemic fauna. With reference to biodiversity, aquatic freshwater ecosystem has been widely neglected though it contains a tremendous diversity of fishes, amphibians, invertebrates and aquatic plants which are still the most seriously threatened (Global Biodiversity Strategy, 1992). In India, the National Bureau of Fish Genetic Resources, Lucknow and Zoo Outreach Organization have recently evaluated 329 freshwater fish species (ZOO/CBSG India, 1998). Peninsular India with special reference to Western Ghats has 64 ornamental fishes (Gopalakrishnan & Ponniah, 1998). Despite this rich biodiversity some of the fish species are even endangered due to various anthropogenic factors (Cairns *et al.*, 1993).

In this context River Cauvery one of the perennial rivers of Tamil Nadu flows west to east with a number of distributaries and tributaries before confluencing into Bay of Bengal. In Tamil Nadu its major reservoirs are Mettur and Grand Anicut. Jayaram *et al.* (1982) published a survey of the entire River Cauvery system with a major account on fish fauna. This micro-level study was taken out to make an inventory of the fish diversity in and around (5 km. radius) of Grand Anicut area, Tiruchirapalli. This major reservoir was particularly chosen since at this point the river branches off into five major distributaries.

Methodology

The collections were made once in a week from the five distributaries at random whenever the dam was closed for irrigation which resulted in the minimum flow of water in the river enabling net operation. The local fishermen helped to collect fishes using the cast nets and shore seines in the river and in the irrigation canals adjacent to the tributaries. The collected fishes were labeled, preserved and brought to the laboratory to measure the meristic and morphometric characters (Ramaiyan, 1997). The fishes were identified with the help of the standard reference materials (Jayaram *et al.*, 1982; Talwar & Jhingran, 1991.)

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Results and Discussion

The inventory of fish fauna collected from the Grand Anicut Cauvery and their status are presented in Table 1. A total of 24 species belonging to 18 genera and 13 families were collected; of these 45.8% of the species belong to the family Cyprinidae. Of the 24 species 10 are cultivable and seven are ornamental fish species. Twenty percent of the cultivable species and 75% of the ornamental fishes belong to the family Cyprinidae. Regarding the status, out of 24 species recorded in this study *Garra gotyla stenorhynchus* is the only endangered species which is locally consumed. The following come under low risk nearly threatened category at the National level (not necessarily at Grand Anicut or the River Cauvery) *viz.*, *Puntius sophore*, *Puntius ticto*, *Danio aequipinnatus*, *Labeo calbasu*, *Barilius bendelisis*, *Notopterus notopterus*, *Glossogobius giuris*, *Wallago attu*, *Rasbora daniconius*, *Xenentodon cancila* and *Channa punctatus*. Five are vulnerable and the status of the rest of the species are yet to be assessed (Table 1).

Vernacular names of fishes have an equal importance. The traditional knowledge of local people often helps in documenting the species diversity. The fishermen usually notice the slightest changes in the habitat, size, growth and migration of different species. This study reports the supplemented vernacular names apart from those reported already (Jayaram *et al.*, 1982) (Table 1).

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Table 1. Fish diversity in Grand Anicut in River Cauvery

Family	Scientific name	Vernacular name	Status in India
Cyprinidae	*Puntius sophore*[2]	Kulla Kendai, Kurun Chelli*, Mocha Kendai**	LRnt/N
	Puntius ticto[2]	Puli Kendai*, Macha Kendai**	LRnt/N
	Puntius filamentosus[2]	Sevvali, DMK Fish*, Poovali Kendai**	NE
	Puntius vittatus[2]	Koolo*, Sale Kendai**	VU/N
	Puntius (Barbodes) sarana[1]		VU/N
	Garra mullya	Kallu kuravai*, Kall Kendai**	NE
	Garra gotyla stenorhychus	Kalloti**	EN
	Danio aequipinnatus[2]	Salai Paravu*, Vannathi Podi**	LRnt/N
	Labeo calbasu[1]		LRnt/N
	Barilius bendelisis	Vannathi Kendai, Akkilii*, Varatan Kendai**	LRnt/N
	Rasbora daniconius[2]	Patta Kunju*, Bhavani Kendai**	NE
Cichlidae	*Etroplus maculatus*	Sella Kasu, Puradi*, Salladai Meen**	NE
	Etroplus suratensis[1]	Setha Kendai*, Bommi, Bun Kendai**	NE
Belontidae	*Macropodus cupanus*[2]		NE
	Xenentodon cancila		LRnt/N
Heteropneustidae	*Heteropneustes fossilis*[1]		VU/N
Notopteridae	*Notopterus notopterus*[1]	Ambattan Vazhai, Chinna Vazhai*, Selai Meen**	LRnt/N
Gobitidae	*Glossogobius giuris*[1]		LRnt/N
Mastacembelidae	*Mastacembelus armatus*[1]		NE
Siluridae	*Wallago attu*[1]	Vazhai*, Sitha Vazhai*, Sevv Vazhai**	LRnt/N
Channidae	*Channa punctatus*		LRnt/N
Anabantidae	*Anabas testudineus*[1]	Panaiyeri Kendai*, Kirukirutha**	VU/N
Bagridae	*Mystus bleekeri*[1]	Keluthi**	VU/N
Cobitidae	*Lepidocephalus thermalis*[2]	Asarat*, Ayirai**	NE

Note: Species with '/N' following the status denotes the assessment at the National level (ZOO/CBSG India, 1998). The category does not indicate the status of the species at Grand Anicut.

EN - Endangered; VU - Vulnerable; LRnt - Lower Risk-near threatened; NE - Not Evaluated

[1]Cultivable fishes; [2]Ornamental fishes

* - Jayaram et al., 1982; ** - present work.