

Breeding of indigenous freshwater ornamental fishes



**Central Inland Fisheries Research Institute
Barrackpore, Kolkata - 700120**

BREEDING OF INDIGENOUS FRESHWATER ORNAMENTAL FISHES

The global trade of ornamental fishes is valued at about US \$ 5 billion. India's share in the global ornamental fish market is only \$ 2.7 million against an estimated potential of about \$ 30 million per year. There are about 150 full time and 1500 part time ornamental fish breeders in our country. Most of them concentrate mainly on fishes of exotic origin.

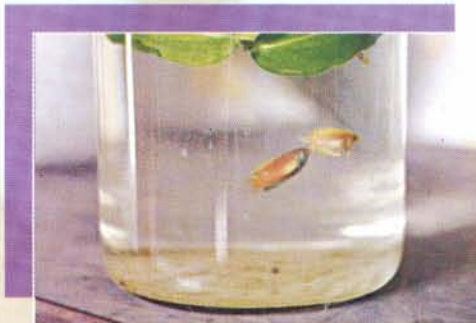
Controlled breeding of *Colisa sota*

Optimum condition for breeding

Water temperature	-	28° C
pH	-	7.6
DO	-	4 mg/l
Alkalinity	-	440 mg/l
Hardness	-	540 mg/l

Spawning behaviour

Spawning season is April-June. Male makes foamy bubble nest around the aquarium plant leaves or other artificial substrata provided for the purpose. Male develops dark bluish-green colouration on the ventral surface during breeding season. Female releases eggs in the bubble nest in batches of 100-150 at a time. Fecundity is 400-500. Female is removed soon after egg laying. Male shows parental care. The fertilized eggs stick on to the bubbles and the vegetation in the tank. Eggs are hatched out within 32 hrs. The hatchlings have tiny black heads with silvery thread like tails. They cling on to the bubbles and vegetation till becoming free swimming within 3-4 days. Attain maturity within 8-9 months.

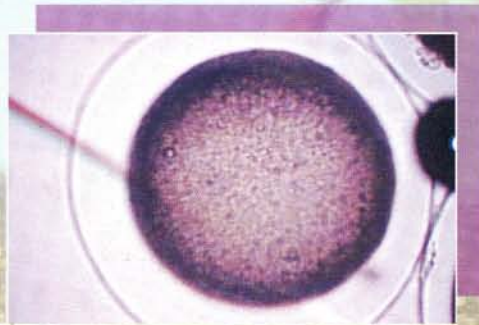


◀ **Breeding Pair**

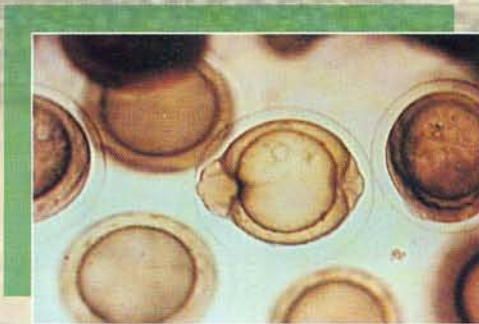
LIFE HISTORY



◀ **Bubble Nest**



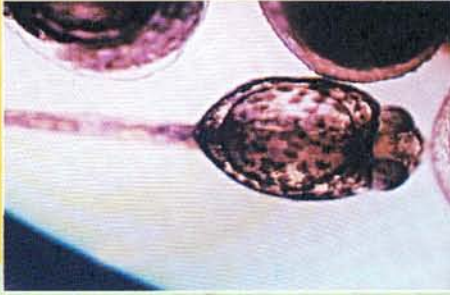
Fertilized Egg ▶



◀ **16 hrs. old embryo**



Embryo just before hatching ▶



◀ *One day old hatchling*



Free moving young ones ▶

ORNAMENTAL FISHERY RESOURCES

CIFRI has identified about 70 species of freshwater indigenous fishes of ornamental value from the rivers and associated wetlands of West Bengal. Breeding and rearing technology of a few under controlled condition has been perfected. Notable among them are given below:



◀ *Oreochromis mossambicus*



◀ *Gagata cenia*



Danio dangila ▶



◀ *Nandus nandus*



Colisa fasciata ▶



◀ *Brachydanio sp.*

A NOTE OF CAUTION !!

Present day aquarists, in their quest for profit making, try to cross breed the indigenous species with the exotics. This practice can cause harm to the genetic integrity of our native fish fauna. If they follow the responsible fishery practices, ornamental fish can bring wealth and prosperity to people without endangering the germplasm wealth of our country.

For more details, please contact :

Central Inland Fisheries Research Institute,

(Indian Council of Agricultural Research)

Barrackpore, Kolkata -700120

West Bengal

Telephone 033 25921190,25921191

Fax 033 25920388

E mail : cifri@vsnl.com, suvidha4@vsnl.com