

Low Cost Murrel Seed Production Technique for Fish Farmers

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Abstract

A simple and low-cost breeding technology for breeding the striped murrel, *Channa striatus* in hapas in ponds was developed.

Introduction

The snakehead, *Channa striatus*, commonly known as striped murrel is a native freshwater fish of tropical Africa and Asia (Ng and Lim 1990). Murrels are commercially cultured in Thailand, Philippines, Vietnam and Cambodia (Wee 1982). However in India, the culture of murrels is still not common due to the lack of seed supply and knowledge of their feeding and breeding techniques. In view of this, the present study was undertaken to develop a simple and low-cost breeding technology for *C. striatus*.

The study was carried out in a pond of 48 m² in August 2000. A rectangular drag net (2x2x1 m) was used as a breeding hapa. Four iron poles were fixed at a corner of the culture pond and the net was tightly attached to the poles using nylon rope. The base of the drag net was fully submerged at the pond bottom using bricks (Fig. 1). Two sets of brood fishes, four males and two females, ranging between 600 g and 950 g were selected from the broodstock collection (Fig. 2) based on external morphological features (Haniffa et al. 1996). The brood fishes were injected with Ovatide, a new ovulating agent, at the rate of 0.4 ml/kg body weight of the brood fish. The injected brood fishes were



Fig. 1. Breeding hapa.



Fig. 2. Broodstock of *C. striatus*.



Fig. 3. Collection of hatchlings.

introduced into the breeding hapa. Aquatic macrophytes like *Eichhornia crassipes* and *Hydrilla verticillata* were introduced into the breeding hapa for shelter. Spawning was noticed 10 hrs after hormone injection. Egg samples were collected from the egg mass and kept inside a beaker (capacity 500 ml) to determine the fertilization and hatching rates. The eggs hatched 24-26 hrs after spawning (Fig.3). The hatchlings congregated near the water surface and were allowed to grow along with the parents in the breeding hapa. It was possible to collect 750-1 500 fry after 1 month.

Generally, breeding hapas have been used for breeding major carps and so far no attempts have been made to spawn murrels in the hapa. The present experiment is the first kind for the assured supply of murrel seed for culture by farmers.

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