The size of the metamorphosed fry ranges from 16 to 17 mm. Juveniles of Indian pompano are harvested after 25-30 days of larval rearing and are shifted for nursery rearing. The average survival during larval rearing is around 21%. Longer duration of light (1000 lux) is provided from 2nd to 8th day of larval rearing, afterwards natural light period is followed. Feeding and water management during larval rearing is depicted below.

**Nursery rearing**

The nursery rearing of Indian pompano is standardized with different feed and culture conditions. Pellet feed with 45% protein and 10% lipid is ideal during nursery rearing. Fishes are fed at 10% of the biomass for 3-4 times daily. Nursery rearing is carried out in different systems such as RAS, hapa fixed in pond, hapa fixed in sea cages and cement tank. The stocking density is maintained at 300-3500 nos. per m² depending upon the culture system. Indian pompano grows to a size of 20-25 g in 2 months culture period, after which grow out culture commences.

**Grow out culture**

Advanced Indian pompano fingerlings (15-20 g) are stocked in cages @ 30 nos/m² and are fed with floating pellet having 40-45% protein content. The fish grows from 15-20 g to 120-180 g (26±3.17 g) after three months and after 10 months of rearing, fish attains an average size of 950±615 g. Food Conversion Ratio is 1:7 to 1:9. The cost of production is ₹ 90/kg and the farmgate price realized is ₹ 300/kg.

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**SEED PRODUCTION & CULTURE OF INDIAN POMPANO TRACHINOTUS MOOKALEE**

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Introduction

In India, the resources available for mariculture/coastal aquaculture is vast and it includes 829 km of coastline, 2.2 million km² of Exclusive Economic Zone (EEZ) with 0.5 million km² of continental shelf area, 1.2 million ha of coastal salt affected land and 3.9 million ha of estuarine area. In spite of having huge mariculture resources, India is still at the initial stage in mariculture. The coastal aquaculture scenario continues to be dominated by shrimp farming with single species. Presently, shrimp culture in India is in doldrums, due to the frequent failures of the crop. Adopting crop rotation or diversification using finfishes, to some extent would solve the issue of diseases in shrimp industry. One of the vital prerequisites for crop rotation or diversification is the availability of seed production technology for selected high value finfish. Indian pompano is a suitable species for crop rotation, since the shrimp pond could be used as such for the culture of the species without further modifications. Therefore, a necessity was felt to develop seed production technology of high value marine finfishes; and accordingly, broodstock development, breeding and larval rearing of Indian pompano has been successfully achieved at Visakhapatnam Regional Centre of ICAR-Central Marine Fisheries Research Institute, Andhra Pradesh, India for the first time.

Brodstock development and spawning

Brodstock development, breeding and larval rearing of Indian pompano has been successfully achieved at Visakhapatnam Regional Centre of ICAR-Central Marine Fisheries Research Institute, Visakhapatnam, Andhra Pradesh. Indian pompano is distributed in western Indian Ocean from the Gulf of Oman eastward to Sri Lanka. Its range also extends to Singapore, Gulf of Thailand and Hong Kong. In India it has been reported both from the east and west coasts. It is considered as one of the potential candidate species for aquaculture because of its several culture characters like fast and uniform growth rate, attractive appearance, hardy nature with tolerance to wide range of water salinities (5-35 g/l), acceptability to formulated feed, firm white as well as tasty meat and high market demand. It can be cultured in both ponds and cages.

The fishes are fed on fresh squid and clam meat fortified with squid oil, vitamin – mineral pre-mix in a day till satiation. They are cannulated and sexed. Passive integrated transponder (PIT) tagging is used for identification of individual brooder. The brooders mature within 4 months with ova size of 450 - 550 pm. Spawning is obtained either naturally or by inducing with hormone. Once the intra-ovarian ova reaches a size of 500 pm, the male and female are induced with hCG at a dose of 350 IU/kg body weight. The spawning occurs within 36-38 h after injection. The number of eggs spawned by Indian pompano ranges from 0.6 to 1.5 lakhs.

Adult fishes (> 2 kg) collected from commercial catches are stocked @ 1 kg/m³ in a circular tank of 125 m³ capacity fitted with a Re-circulating Aquaculture System (RAS). The tank is connected with different components of RAS such as rapid sand filter to remove suspended solids, protein skimmer to eliminate dissolved solids and biological filter to reduce biochemical waste. The whole tank water is getting re-circulated 300% per day, and the water is added at the rate of 3% to top up the loss happening due to protein skimmer and backwashes of rapid sand filter.

The spawned eggs from broodstock tank are collected by passing the surface water through an egg-collecting chamber fitted with a hapa of 500 µm. Collected eggs are treated with 20 ppm iodine solution for 10 minutes with strong aeration. Treated eggs are stocked in 100 l aquarium tanks @ 300 nos per liter. Bottom settled eggs are removed after 2 h of stocking. The eggs hatch out 20-22 h after fertilization at 28-30 °C and 30-32 ppt salinity with mild aeration. Newly hatched out larvae are free floating on the water surface.

Larviculture

The newly hatched larvae measures 2.1-2.2 mm in total length. The mouth opening is formed 42-46 h post hatch. The newly hatched larvae are collected from the water surface of hatch tank and stocked in larval rearing tanks @ 10 nos/l. Water depth of the larval rearing tank is maintained at a minimum of 90 cm. Green water is seeded for larval rearing.

The overall fertilization and hatching rate is 69 ± 1.35% and 87, 67 ± 0.8%, respectively. Subsequent spawning of Indian pompano is achieved at an interval of 35-40 days in RAS.