



A Pompano brooder

Breeding and seed production of Silver Pompano for the first time in India

Mandapam RC achieves another breakthrough

Among the many high value marine tropical finfish that could be farmed in India, the silver pompano, *Trachinotus blochii* is one of the topmost, mainly due to its fast growth rate, good meat quality and high market demand. The species is able to acclimatize and grow well even at a lower salinity of about 10 ppt and hence is suitable for farming in the vast low saline waters of our country besides its potential for sea cage farming.

At Mandapam Regional Centre of CMFRI, successful broodstock development, induction of spawning and fingerling production of silver pompano was achieved for the first time in India.



Cannulation process



Hormonal administration

Realizing the aquaculture potential of pompano in India, broodstock development was initiated in the year 2008 at the Mandapam Regional Centre of CMFRI. Wild collected pompano of size ranging from 250 to 500 g. were stocked in sea cages. The fishes were fed *ad libitum* once in a day with trash fish. In April 2011, four members of cage reared adult pompano (1 female and 3 males) were selected and transferred to an indoor FRP tank of 10 m³ capacity with photoperiod control facility (14 L: 10 D) for pre-conditioning the fishes to induced spawning. The female was 39.8 cm in length and 2.3 kg in weight. The total



Measurement of fingerlings



Fingerlings 45 dph

length of the males ranged from 30.7 to 35.7 cm and weight, from 1.750 to 2.1 kg. The brooders were fed *ad libitum* with squid meat and fishroe once a day. Water quality was maintained by providing a flow-through system throughout the period. Periodic cannulations were carried out to assess the maturity of the fishes for induction of spawning. On 5th July 2011, during the cannulation of the female, intra-ovarian eggs of diameter above 500 μ were observed. The maturity of the males was assessed based on milt quality. On the same day at 14:30 hours, the brooders

were administered with hCG at a dosage of 350 IU per kg body weight. Spawning was recorded at around 04:30 hrs on 7th July 2011, approximately 38 hours after induction. The total number of eggs spawned was estimated at 1.30 lakh. About 50 % fertilization was noted (fertilized eggs amounted to around 60,000 nos.). The eggs were collected by 500 μ mesh and stocked in incubation tanks of 2 ton capacity. The eggs hatched after 18 hours of incubation at a temperature range of 30-31°C. The newly hatched larva measured 2.0 mm in total length. It was also noted that after

the critical stage mortality during 3-5 days past hatch (dph), the subsequent mortalities were rather negligible.

The first phase of nursery rearing was done upto 35 dph in the hatchery with inert feeds and proper water quality management. On 35dph, the fingerlings with size range from 33-40 mm were ready for farm rearing. The survival as on 35 dph was estimated at 12%.

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