

## **Broodstock Development, Induced Breeding and Larval Production of Cobia, *Rachycentron canadum* was achieved for the first time in India**

At Mandapam Regional Centre of CMFRI, broodstock development of Cobia in sea cages was achieved by feeding with broodstock diets. The sexes were determined by cannulation and males and females were segregated and stocked in separate cages. The cannulations of the females were done at regular intervals to assess the size of the intra-ovarian eggs. On 11.03.2010, one of the female with intra-ovarian eggs around 700  $\mu$  was selected for induced breeding. The size of the female was 120 cm in total length and 23 kg in weight. Two males were also selected from the male cage. The sizes of the males were 100 cm and 103 cm in total length and weighed 11 kg and 13.5 kg, respectively. The selected brooders were introduced in a 100 ton roofed cement tank with about 60 ton of sea water on the same day. At around 1300 hours, the brooders were induced for spawning with HCG at doses of 500 IU per kg body weight for female and 250 IU per kg body weight for males. Spawning was noted at 0430 hours on 13.03.2010. The total eggs spawned were estimated as 2.1 million. About 90% fertilization was recorded (fertilized eggs amounted to 1.9 million). The eggs were collected by a 500  $\mu$  mesh and stocked in incubation tanks with varying densities. The eggs were hatched after 22 hours of incubation at a temperature range of 28-30° C. The percentage of hatching was 80 % and the total number of newly hatched larvae was estimated as 1.5 million. The newly hatched larvae measured in total length from 2.2-2.7 mm. The mouth opening was formed on 16.03.2010 (on 3<sup>rd</sup> day post hatch). The mouth opening of the newly hatched larvae measured around 200  $\mu$ . The larvae were stocked in 15 FRP tanks of 5 ton capacity each at an average density of 50,000 larvae per tank for intensive larviculture. The remaining larvae were stocked in three 100 ton cement tanks for extensive larviculture trials. The intensive larviculture tanks were provided with green water at a density of about  $1 \times 10^5$  cells per ml and rotifers enriched with DHA SELCO at a density of 6-8 nos. per ml. In the extensive larviculture tanks, green water along with rotifers are maintained. Good survival of larvae is being observed and the larviculture is progressing well.