Development of Cobia (Rachycentron canadum) and Pompano (Trachinotus blochii) Aquaculture in India

Dr. G. Gopakumar, Scientist-in-charge, CMFRI, Mandapam, Tamilnadu, has explained the aquatic potential of the sea fishes Cobia and Pompano as follows:

Cobia (Rachycentron canadum) and silver pompano (Trachinotus blochii) are two marine finfish species with very high potential for aquaculture in India. Fast growth rate, adaptability for captive breeding, the lowest cost of production, good meat quality and high market demand, especially for sashimi industry are some of the attributes that make Cobia an excellent species for aquaculture. In recent years, the seed production and farming of Cobia is rapidly gaining momentum in many Asian countries. Envisaging the prospects of Cobia farming in India, broodstock development was initiated at the Mandapam Regional Centre of Central Marine Fisheries Research Institute in sea cages during 2008 and the first successful induced breeding and seed production was achieved in March – April 2010. Trials on sea cage farming carried out at Mandapam showed that the fishes (each) attained an average weight of 2.5 kg in six months and 7.3 kg in twelve months. The species can be grown in low salinity and experiments revealed that up to 15 ppt from the highest salinity in the sea: the growth and survival is comparable to those that grow in seawater. These results point out the possibility of developing a lucrative Cobia aquaculture enterprise in the country. However, standardisation of technologies for seed production and farming of Cobia to suit our environmental conditions have to be further pursued on a priority basis so that India can also emerge as a contributor for cobia production in the near future.

Similarly, among the many high value marine tropical finfish that could be farmed in India, the silver pompano is also one of the topmost, mainly due to its fast growth rate, good meat quality and high market demand. The species is able to acclimatise 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 during July 2011 for the first time in India. Subsequently two more seed production experiments were also conducted successfully and now farming trials are progressing. This can be considered as a milestone towards the development of Pompano aquaculture in the country.

The current achievements in Cobia and Pompano can be considered as the first step towards the aquaculture development of the two species. The establishment of biosecure broodstock centres, standardisation of breeding, larviculture and nursery rearing protocols and farming demonstrations in pond and sea cages are the steps to the way forward. Hence, it is required to invest and establish infrastructure for the different phases from seed to product development viz.; (i) required broodstock facility for the production of viable fertilised eggs throughout the year, (ii) hatchery facility for meeting the seed requirements, (iii) grow-out facilities and (iv) product processing and distribution system. It is felt that both Cobia and Pompano are potential aquaculture giants having vast domestic and global business prospects.