



Cobia after 14 months (14 Kg weight)

The cobia, *Rachycentron canadum*, is a marine finfish that prevails throughout tropical and sub tropical attitudes and holds only a minor commercial fishery landing. Efforts toward the production of cobia in Southeast Asia can be traced back to the early 1990's. The recent global interest in cobia culture can be linked to various desirable culture characteristics, such as ease of spawning in captivity, excellent growth rates, high post weaning survival and adaptability to cage and tank culture conditions. In addition, cobia readily accepts trash fishes and a wide variety of commercially available feeds. The stagnation of capture fisheries and an ever increasing demand from domestic market for marine fishes are accelerating initiatives to enhance mariculture production from the coastal waters.

Foreseeing the need to increase fish production and to address livelihood issues it was CMFRI's initiative to develop an indigenous technology for Open Sea floating cage culture for various finfishes and shellfishes along the east and west coast of the country. Besides developing cage and mooring technology CMFRI perfected breeding and larval rearing technologies for a number of marine

finfish species to support cage culture in the country.

Cobia represents one of the best potential species for cage farming in open seas. Cobia is a highly prized species across the world, with a tremendous potential for cage farming because of its rapid growth rate and high quality lean flesh. Cobia cage aquaculture was initiated during 2010 period at Karwar Research Centre of CMFRI in the west coast. They are reared in circular open sea floating net cages. These cages are made of GI with a diameter of 6 meter. Cobia juveniles, ranging in size from 13 to 15 cm, with weights of 10 to 15g respectively, were brought from Mandapam Regional Centre of CMFRI on 26-05-2010. The fishes were directly stocked into open sea cages on arrival. A total of 400 cobia juveniles stocked in these cages.

Growth rates were determined by regular sampling and measuring individual lengths (cm) and weights (g). Mortalities were determined by collecting and counting individual dead fish. Fish were fed to satiation at 10% of their total biomass per day with minced fresh sardine meat. Fish were fed twice a day

Karwar RC demonstrates Marvellous Cobia culture

-  24 months - 25 Kgs
-  Average daily weight gain 45 g.
-  FCR 1: 1.6

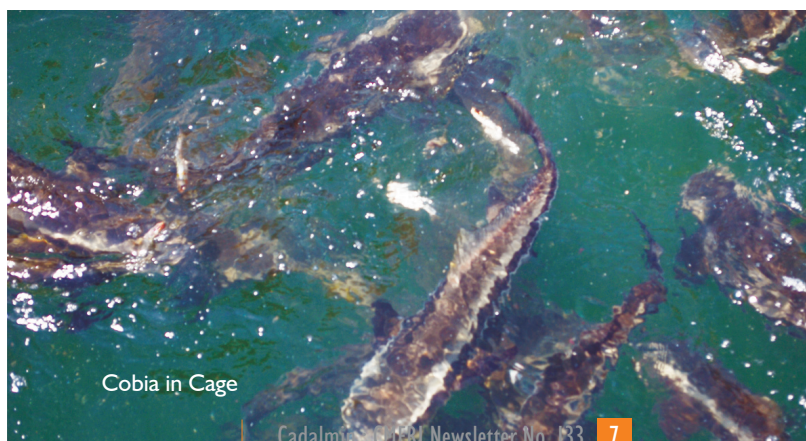
(early morning and late afternoon). Food conversion ratio (FCR) was estimated by calculating the ratio between the total weight of food given and the average weight of fish during the respective period. For environmental monitoring water temperature, salinity and dissolved oxygen data were collected and recorded in daily basis from the cage culture site. Cage nets were periodically cleaned or exchanged to reduce fouling and to maintain consistent flow of water through the cage.

During the initial culture period of four months from June to September, 2010 an average daily growth rate of 7.75g was estimated (153 days). In this period the fishes have reached a maximum weight of 1.2kg. From September 2010 to July 2011 the fishes showed an average daily growth rate of 26.35g and with a maximum weight of 10kg. From July, 2011 till May, 2012 the average daily growth rate was 44.78g with a maximum body weight of 24.85kg. At present cobia stock has reached 2 years growth in open sea floating net cages. The average FCR estimated during this culture period was found to be 1:1.6 with fresh oil sardine as feed.

The experimental farming of cobia conducted at Karwar Research Centre in open sea floating net cages shows that the growth rate achieved is excellent and probably better than that recorded elsewhere.



Cobia after 24 months (1.1 Meter length, 25.6 Kg weight)



Cobia in Cage