

Event

RGCA's

Cobia Stock Enhancement Programme Inaugurated by Oommen Chandy, Hon. Chief Minister of Kerala

—At Vizhinjam near Thiruvananthapuram on 22 July 2011

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Focal Points at a Glance

During the past several years there has been an alarming decline in marine fish stocks, particularly of prime fishes. One way of countering this trend is to undertake sea ranching with healthy, hatchery produced juveniles of overexploited quality fish species. The first major programme in this direction was inaugurated by the Chief Minister of Kerala, Mr. Oommen Chandy at Vizhinjam near Thiruvananthapuram, the objective being to enhance stocks of marine cobia, a prime sea fish of importance in the Arabian sea.

Exploitation of Fishery resources over the years has progressed gradually from under exploitation to moderate exploitation and finally to overexploitation, not just in India alone, but across the world. Natural marine resources have been declining rapidly with the increase in fishing efforts and improvements in fishing technology. Presently, we have reached a stage where rational exploitation is to be undertaken with a sense of urgency, in addition to taking immediate steps for the recovery of depleted/ declining stocks through implementation of stock enhancement, sea ranching and farming activities.

On 22nd July 2011, RGCA took up a Marine Finfish Natural Stock Enhancement Programme in which juveniles of Cobia produced at the RGCA hatchery, Pozhiyur were sea ranched off the Vizhinjam coast near Thiruvananthapuram. The programme was launched by the Hon'ble Chief Minister of Kerala, Mr. Oommen Chandy onboard vessel of Kerala Marine Enforcement Department by ranching hatchery produced juveniles of Cobia into the sea at Vizhinjam in the presence of Dr. Shashi Tharoor, Hon'ble Member of Parliament, Thiruvananthapuram and Ms. Leena Nair, Chairperson, MPEDA. To mark the first ever such large scale ranching activity being organised in the country, a function was organised by RGCA at Vizhinjam.

Earlier, at the public function organised at the Vizhinjam harbour, Ms. Leena Nair, Chairperson, MPEDA gave the welcome address and Mr. Y.C. Thampi Samraj, Project Director, RGCA presented the technical report. Other prominent guests at the function included Mrs. Jameela Prakasham, Member of Legislative Assembly, Kovalam, Mr. V.N. Jithendran, Director of Fisheries and Mr. P.M. Francis, District Collector, Thiruvananthapuram.

The Chairperson, MPEDA, in her welcome address announced that MPEDA - RGCA proposed to undertake such stock enhancement programmes on a regular basis in the future so that these would, in

the coming years, contribute substantially to the fish production of the area.

The Chairperson also informed that the projects of RGCA, already in progress were being strengthened by way of further planning to invest heavily on genetic improvement of farmed marine species that was urgently needed to support increased development of sea ranching and sea farming. The next ranching programme would involve tagging of fish before their release into the ocean to carry out several studies with the data obtained from recaptured fish. There is also immense scope for sea farming in the country and RGCA also plans to take the sea farming technology to the fishing sector through its Technology Transfer and Training Centre at Sirkali in Tamil Nadu where hands-on training is being provided on the technologies developed under RGCA projects to farmers, fisherfolk, technocrats, students, and government officials, so that the fishing and aquaculture sector would be improved, it was explained.

The Chairperson added that the estimated production of Cobia around Vizhinjam which is presently around 500 tonnes (approx) could be increased to around 2,000 tonnes in the next 3-4 years by undertaking such sea ranching programmes. An additional 3,000 tonnes could also be produced through sea farming in the area. Thus, a total

production of around 5,000 tonnes of Cobia, with a value of around Rs.2,000 crores could be achieved and exported from the area in the coming few years.

In his inaugural address, the Chief Minister, Mr. Oommen Chandy, emphasised the importance of undertaking such activities that would greatly benefit in increasing the export of Seafood from the country, as well as in upgrading the incomes of the fisherfolk, who would be contributing to the increased fish production. The Chief Minister also assured all support from the Government of Kerala and from the Govt. of India to such programmes.

Dr. Shashi Tharoor, in his presidential address, observed that Cobia had great demand in the international markets. He added that India should cash in on the demand by undertaking sea ranching and sea farming activities. Dr. Tharoor also stressed that with meticulous planning and systematic approach, we could beat China and become world leader in aquaculture production. This could be achieved only by creating world class infrastructure with a long term vision, he said.

In continuation with the inauguration of sea ranching of Cobia at Vizhinjam, the second phase of sea ranching was organised by RGCA at Pozhiyoor, Thiruvananthapuram on 08.08.2011 with participation of Local Self Government representatives and fishermen. The photographs of the function, transport arrangements, releasing of Cobia onboard country craft by fishermen are also included in this report. RGCA had sea ranched a total of 1,116 juveniles and sub-adults after successful rearing for over 6 months with a view of ensuring their better adaptability at sea and as a part of these stock enhancement programmes.

Stock enhancement and sea ranching are being discussed over the last few decades, ever since it was observed that the natural fish stocks in the ocean have begun to decline and at the same time the relentless exploitation of these resources is on the increase. Stock enhancement and sea ranching should be seen as a part of total fisheries management with a combination of ecological, social and economic impacts. In this context, stock enhancement activities have to be designed and implemented to meet their objectives in a responsible way.

RGCA has a mandate for undertaking activities such as ranching of healthy, hatchery produced aquatic species that are being continuously overexploited, for natural stock enhancement. RGCA has been undertaking such natural stock enhancement activities from time to time and has already ranched brackishwater species such as the Asian Seabass - *Lates calcarifer* and the Mud Crab *Scylla serrata* at Pazhayaar estuary in Tamil Nadu. In this background, the present MPEDA-RGCA programme for sea

ranching of the marine finfish, Cobia on the present scale is the first of its kind in India. This programme, like the earlier programmes, is committed to be implemented in a dedicated and responsible way.

The Marine Finfish Project of RGCA was established at Pozhiyoor in Thiruvananthapuram, Kerala with Cobia - *Rachycentron canadum*, as the candidate species, the objective being the opening up new avenues for diversification of export-oriented aquaculture through sustainable production of marine finfish, to popularise open sea farming in India and to enable the country to utilise the untapped resources to boost up aquaculture production, seafood exports and to increase export earnings.

Cobia is also known as Lemon fish, crab eater or Ling. It is distributed in tropical warm waters and in subtropical area worldwide and usually it reaches to a size of 1.3 m. However, individuals that have reached 2 m. length and 68 kg have also been recorded. Cobia is an exceedingly fast growing fish, known to grow to approximately 6-8 kg within 12 months. The feed conversion ratios are also very promising at all the open sea cage farming activities carried out so far. Having a desirable appearance, texture, and flavour, the flesh of Cobia is preferred by most of the consumers all over the world, particularly in sashimi form. In addition, its flesh also has high levels of Omega-3 fatty acids (one of the highest levels of heart-healthy Omega-3 fatty acids of any seafood) making it more appealing to the consumers. All these attributes make Cobia an ideal species for open ocean aquaculture production.

This Marine Finfish Project of RGCA has been successful in breeding Cobia and also has achieved mass production of Cobia fingerlings. Using the fingerlings produced at the facility, RGCA is now pursuing two activities that would help the nation to conserve the ocean resources to meet the food fish requirements of the nation in the coming years and decades. The first activity is to exploit the vast expanse of the oceans for growing fish in a scientific way through "Sea Farming". This is an extremely effective technology that can be adopted by fisherfolk where they are assured specific yields and guaranteed returns. Production through farming can also help to reduce the dependence on fishing and prevent overexploitation of fishery resources thereby conserving natural stocks. The sea farming trials of Cobia by RGCA, exclusively with extruded pellets without dependence on trash fish or wet feeds, are also now in progress.

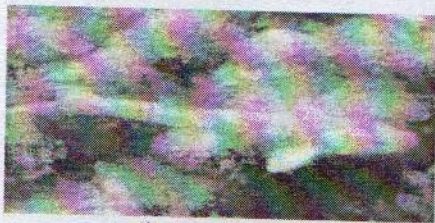
The second activity is the replenishment or enhancement of ocean resources through scientifically planned "Sea Ranching" activities which would assist in recovery of depleted stocks as well as in maintaining the stocks that are rapidly getting depleted.

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Tiny teeth indicate ancient shark nurseries

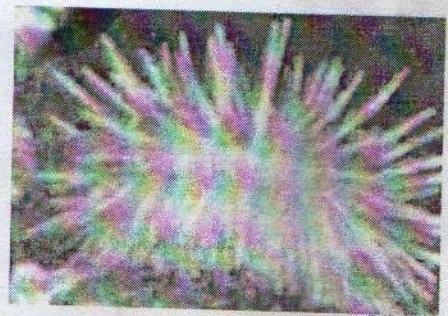
The finding of fossil egg capsules and tiny teeth in Kyrgyzstan, suggests that many ancient shark species bred in the

shallows of freshwater lakes, more than 200 million years ago, forming nurseries for their hatchlings.



Sea Urchins see with their whole body

Sea urchins have several genes that are coded for a widely occurring eye protein, opsin. These photoreceptors located on the tip and base of the tube feet found all over the sea urchin's body and are used to see.



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Mr. J. Ramesh, Secretary, MPEDA welcoming Mr. Oommen Chandy, Hon'ble Chief Minister of Kerala



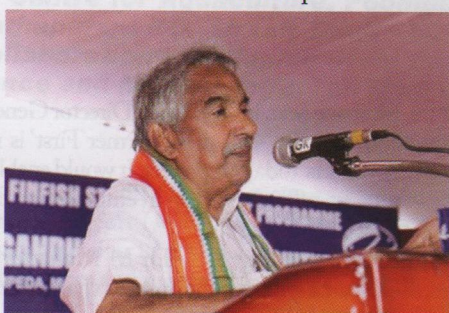
The Chief Minister inaugurating the public function by lighting the traditional lamp



Ms. Leena Nair, Chairperson, MPEDA lighting the lamp during the inaugural function



Ms. Leena Nair, Chairperson, MPEDA delivering welcome address



Mr. Oommen Chandy, Hon'ble CM of Kerala, delivering the inaugural address



Mr. Y.C. Thampi Sam Raj, Project Director, RGCA presenting Technical Report



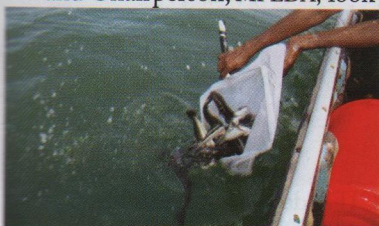
The Chief Minister releasing the Cobia juveniles, while Dr. Shashi Tharoor, MP and Chairperson, MPEDA, look on



The dignitaries onboard the vessel ranching Cobia juveniles off Vizhinjam



Pozhiyoor Sea Ranching Programme: Inauguration in the presence of local leaders



Pozhiyoor Sea Ranching Programme: Releasing of Cobia juveniles into sea near reef area



Pozhiyoor Sea Ranching Programme: Releasing of Cobia juveniles from country craft



Pozhiyoor Sea Ranching Programme: Released Cobia in the sea



Ranched Cobia juveniles



Adult cobia