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CMFRI Newsletter

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**Hon'ble Chief Minister of Kerala,  
Shri Oommen Chandy  
lighting the ceremonial lamp**

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**CMFRI bags National Indira Gandhi  
Rajbhasha Puraskar**

see back cover



हर कदम, हर डगर  
किसानों का हमसफर  
भारतीय कृषि अनुसंधान परिषद

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**CENTRAL MARINE FISHERIES RESEARCH INSTITUTE**  
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## About CMFRI

The Central Marine Fisheries Research Institute, Cochin, is a premier research Institute under the Indian Council of Agricultural Research, devoted to research and training in marine fisheries and mariculture.

CMFRI has three Regional Centres viz., Mandapam Camp, Visakhapatnam and Veraval and seven Research Centres located along the Indian coastline, catering to the marine fishery policy needs of all maritime states of the country.



## DIRECTOR SPEAKS

Dear Colleagues,

We are glad to inform that we have achieved yet another success in the finfish, Pompano (*Trachinotus blochii*) breeding for the first time in India. We initiated aquaculture research on pompano in 2008 and the first successful broodstock development, induced breeding and larval



production is now successfully accomplished. This achievement may be regarded as a milestone towards the development of pompano aquaculture in the country.

In our journey towards a sustainable marine fisheries management regime and augment coastal fish production, we have achieved a second successful spawning and larval production (F1 generation) of cobia at Mandapam Regional Centre in September 2011. This gives a moral boost to our dedicated efforts in mariculture.

In our efforts to strengthen our infrastructure, we have commenced the construction of our own laboratory-cum-office buildings for the Vizhinjam Research Centre. The Hon'ble Chief Minister of Kerala, Member of Parliament, Member of Legislative Assembly and our Director General graced the occasion of foundation stone laying function.

We are preparing ourselves to host the 9th Indian Fisheries Forum, a prestigious event of our Institute, for which we all have to rise to the occasion and make this forum a grand success.

With best wishes,

**Dr. G. Syda Rao**  
**Director**





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, *Trachynotus 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 m<sup>3</sup> 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 5<sup>th</sup> July 2011, during the cannulation of the female, intra-ovarian eggs of diameter above 500  $\mu$  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 7<sup>th</sup> 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  $\mu$  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%.

(G.Gopakumar; A.K.Abdul Nazar; R.Jayakumar; G.Tamilmani; M.Sakthivel; C.Kalidas & P.Ramesh Kumar; Mandapam Regional Centre)

## CMFRI pioneers Pompano culture in pond



A view of culture pond with happas at Andhra Pradesh Coast

On 35 dph, one batch of fingerlings was transported to a farm (Blue Fields Inc-India), belonging to Shri. Srinivasa Raju at Antervedi, East Godavari District, Andhra Pradesh, for farm rearing. The fingerlings were packed in polythene

bags (15 L capacity) containing filtered and cooled seawater (25°C) and oxygen at the ratio of 1:3. The densities of fingerlings experimented were 20, 25, 30, 35, 40, 45 and 50 nos / bag. The feeding of fingerlings was stopped one

day prior to the date of transportation. Total duration of transportation was 40 hours. During transportation, the variation of temperature was from 25° to 30° C. In all the densities tested, the survival of the fingerlings was 100 %.

The bags containing the fingerlings, on reaching the farm, were floated inside the happas (1.5 m x 1.5 m x 1 m) for a period of 30 minutes. The water temperature at the farm was recorded as 35° C and salinity was 14 ppt. The fingerlings were slowly acclimatized to the ambient conditions of the farm before releasing them into the happas. The fingerlings readily acclimatized to the new environment and started taking feed immediately.

Dr. G.Gopakumar, SIC, MRC of CMFRI is handing over the pompano fingerlings to Shri. Srinivasa Raju, Aqua farmer, Antervedi, Andhra Pradesh ▶



## Pompano breeding: Consistency achieved at Mandapam RC

In continuation to the first successful breeding of pompano, the second and

the third batch of larvae were produced in Mandapam Regional Centre of CMFRI on 8<sup>th</sup> August 2011 and 12<sup>th</sup> September 2011 respectively. The second batch has already metamorphosed and larviculture is progressing for the third batch.

The successful seed production of

silver pompano by CMFRI for the first time in India can be considered as a milestone towards the development of pompano aquaculture in the country. It is felt that pompano is a potential aquaculture giant which has vast domestic and global business prospects.

## Continued breeding of Cobia (F1 Generation) and larval production at Mandapam RC

Second successful spawning and larval production of cobia was achieved at Mandapam Regional Centre of CMFRI in September 2011. Here the males employed were of the F1 generation weighing around 16 kg which were obtained from the first successful spawning of cobia in March 2010. The female employed (around 30 kg) was from the broodstock developed from the wild collected fish. On 6<sup>th</sup> September 2011, the selected brooders were introduced in to a 100 ton cement tank with about 60 ton of filtered sea water. The brooders were induced with human chorionic gonadotropin (hCG) at doses of 500 IU per kg body weight for female and 250 IU per kg body weight for males. Spawning was observed at the early hours on 8<sup>th</sup> September 2011. The total eggs spawned were estimated to be 5 lakhs and about 28 % fertilization was recorded (fertilized eggs amounted to 1.4 lakhs). The eggs were collected by a 500  $\mu$  mesh and stocked in incubation tanks



F1 Generation male cobia

at varying densities. The eggs hatched after 18-24 hours of incubation at a temperature range of 28-30°C. The percentage of hatching was 90 % and the

total number of newly hatched larvae was estimated at 1.26 lakhs. Newly hatched larvae are being reared in tanks containing green water and appropriate live feeds.

## Director General visits Vizhinjam RC



Dr. S Ayyappan, Director General, Dr. B. Meenakumari, DDG, ICAR and Dr. Syda Rao, Director, CMFRI with staff members of Vizhinjam RC after the foundation stone laying ceremony at Vizhinjam on 3-9-2011



# Survey and site selection for deployment of Artificial Reefs in two districts of Tamil Nadu



Sea survey for site selection off Goonankuppam

As part of a Consultancy project taken up by the Madras Research Centre of CMFRI, for the Tamil Nadu Corporation for Development of Women Ltd. (A Government of Tamil Nadu undertaking), sea survey and site selection for deployment of artificial reefs off Goonankuppam village in Thiruvallur District and Kovalam Village in Kancheepuram District, were

completed during July-August by a team of Scientists, Technical Officers and Divers of Madras and Tuticorin Research Centres of CMFRI, during July-August 2011. A series of fishermen meets were conducted as a prelude to this in both villages to create a platform for interaction between the fisherfolk and the Scientists on issues regarding deployment of artificial reefs in nearshore waters.

The project is part of a "Post Tsunami Sustainable Livelihoods Programme" (PTSLP) being run by the TNCDW with assistance from the International Fund for Agricultural Development (IFAD). The project is to be completed in two parts - Part I (Sea survey and site selection) and Part II (Performance analysis and impact assessment).

*(Madras Research Centre of CMFRI)*



Fishermen meet at Kovalam village



Fishermen meet at Goonankuppam village

## Newly constructed Shore Hall inaugurated at Tuticorin



Inauguration of the "Shore Hall" by Dr Syda Rao, Director, CMFRI

The newly constructed "Shore Hall" with a capacity to seat more than 150 people was inaugurated by the Director, Dr.G.Syda Rao on 15.09.2011.

## Cadalmin-IV, The Research Vessel of CMFRI re-launched at Tuticorin



Director and staff on-board Cadalmin-IV after re-launching

Cadalmin-IV, the only research vessel with CMFRI was repaired and re-launched at Tuticorin Research Centre of CMFRI, Tuticorin on 15.09.2011.

## Pearl spot - the State Fish of Kerala: Mass seed production to cage culture - A glance



2 m diameter HDPE cage

Pearl spot has been in the limelight in Kerala for the past one year, since it has been declared as the state fish by the Government of Kerala in 2010. The demand for this fish is increasing day by day and thus the aquaculture prospects too. CMFRI has first done an experimental farming of Pearlsport in open backwater HDPE cage. During the process it was unable to get adequate number of seeds. The supply was restricted with 50-100 numbers at a time and that too totally unreliable. However, with a dedicated attempt we could obtain 2000 wild collected juveniles in the year 2010 and a successful run of cage culture could be attempted. In this context CMFRI has taken up a short term target for mass production of Pearl spot seed in captive conditions. For this purpose earthen ponds at Narakkal, Cochin were developed and 1000 brood fish pairs were stocked. By providing artificial substrates all along the pond natural breeding and egg laying of the fish were enhanced. The fertilized eggs were collected and transferred for hatching and further rearing under controlled conditions. Under the conditions provided we could obtain 95% hatching and 85-90% survival for the larvae (30 days). Nursery rearing was done in HDPE hapas of varying dimensions fixed in earthen ponds till it reached stockable size (4-6 cm).

The total brackish-water area including backwaters of Kerala is about 1,43,696 ha. If 50% of the total area can be utilized, about 71,000 ha are available for aquaculture purpose including cage culture. In Kerala there are nine coastal districts with potential for pearl spot culture.

However, if at least 33% area is to be stocked (based on the above table) one lakh pairs of broodstock is sufficient to meet the entire seed requirement. Since the entire process of pearl spot seed production is without any complicated technologies, it can be popularised all over the coastal districts of Kerala. The input cost for seed production is also the minimum compared to the revenue that can be generated (₹5-7/seed).

### Cage culture of *Etroplus suratensis*

Two 2 m diameter HDPE cages were used for grow out culture of pearl spot in open backwater at Cochin. The effective volume of the net bag used in the culture was 6.28m<sup>3</sup>. About 2000 juvenile pearl spot *E. suratensis* weighing 10- 50 g collected locally were used for stocking in the cages. Feed was given *ad libitum*, thrice

a day using commercial low protein pellet feed and a wet mixture of rice bran and groundnut oil cake (1:1) along with cooked rice which is preferred by pearl spot. Feeding trays were used for feeding. The cleaning of the nets was done periodically for net exchanging. Regular water quality monitoring was also carried out. After 6 months of rearing in the cages the pearl spot has reached an average size of 175 g. A total of 225 kg was harvested from each cage and the survival was 62%. A FCR of 2.7 was worked out with a specific growth rate of 1.42%. Approximate feed requirement for 6 months was 250 kg/ cage. Total expenditure incurred was about ₹48,000 and the revenue generated was ₹78,750. The advantage of cage culture of pearl spot is that it will not spawn in cage due to the absence of firm substrate for egg attachment. This has enhanced the growth of fish compared to that in ponds where it spawns even at a size of 110 g. However, almost all the fish caught from cages were having well developed gonads and it was observed that for broodstock development also cage culture can be practiced.

Prospective farmers may contact CMFRI for technical expertise in broodstock development, seed production and cage culture of pearl spot.

### Pearl spot seed production details by CMFRI using 1000 pairs

Area occupied for broodstock rearing	- 0.265 ha
Egg (@4000Nos/pair)	- 4 million
Larvae (95% hatching)	- 3.8 million
Juveniles (@60% survival)	- 2.28 million
Area that can be stocked (@10,000Nos/ha)	- 228 ha
Harvest (@75% retrieval)	- 1.71 million fish
Production (@mean 200g size)	- 342 tonnes/year
Total revenue (@ ₹150/ kg fish)	- ₹ 51.3 million



Pearl spot seed in hatchery



Pearl spot harvested from cage  
(Mariculture Division)



## Seaweed collection in Gulf of Mannar and Palk Bay region of Tamilnadu; A community initiative



Women seaweed collectors in the Gulf of Mannar region of Tamil Nadu

Around 3000 fisherfolk (both men and women) in the Gulf of Mannar and Palk Bay region, especially in the Ramanathapuram district of Tamil Nadu, depend on collection of seaweed (*Gelidiella acerosa*, *Sargassum* spp. and *Turbinaria* spp.) for

their livelihoods. Most of the seaweed collectors are women. As a community initiative since 2006, in the Palk Bay region, seaweed collection (*Gelidiella acerosa*) is banned during the month of October to January, whereas in Gulf of Mannar region seaweed (*Gelidiella*

*acerosa*) collection is banned during the month of March to June. Similarly the seaweed (*Sargassum* spp.) is collected only during the month of July to October in a year. In some villages collection of seaweeds is restricted to 12 days in a month, with Friday designated as no-collection day. Another community initiative is the banning of metal scrapers for collection of seaweed. Traders have been asked not to buy seaweed collected with scrapers. The current price of *Gelidiella acerosa* traders offered by seaweed collectors is ₹30-32 per kg. on dry weight basis. A seaweed collector earns around ₹150-200 per day. The current price of *Sargassum* spp. and *Turbinaria* spp. offered to collectors by traders is ₹6-7 per kilogram on dry weight basis and a seaweed collector earns around ₹500 per day.

(Reported by  
G. Gopakumar and Johnson, B.,  
Mandapam Regional Centre)

## Spotfin porcupine fish spotted at Malabar coast



*Diodon hystrix*

A rare "spotfin porcupinefish" was landed at Ayikkara Fisheries Harbour in Kannur by a ring seine operating in 40-60 m depth during the last week of July, 2011. The species was identified as *Diodon hystrix* (Linnaeus, 1758), and it is the first report of this species from Malabar region. The spotfin porcupinefish family, Diodontidae is widely distributed in tropical and temperate waters. There are more than 19 species in eight genera in this family. The specimen measured 78 cm in length and weighed 3.5 kg. The spotfin porcupinefish has a greenish-

brown back and a white underside. It has small dark spots which cover its body and fins. Its distinctive spines are usually held flat to its body. However, when disturbed it is capable of inflating its body to stick out the spines for protection. This fish can grow to a maximum length of 3 feet, although they are usually found to be 1 to 2 feet. They are found mostly near cave openings and recesses in coral reefs to depths between 6 and 150 feet. They are solitary and nocturnal and feed on hard shelled invertebrates like sea

urchins, gastropods, and hermit crabs. They are poisonous to eat.

(P. P. Manoj Kumar,  
Calicut RC)

## Tripod fish caught at Sambhavi estuary, Mulky, Karnataka



During the regular seed survey at Sambhavi estuary, Mulky on 30.05.2011, a short-nosed tripod fish (*T. biaculeatus*) was caught in the cast net, which operated at the depth of 1.5 meters. The total length of the fish was 16 cm and weight recorded was 48 g.

(Reported by G. B. Purushottama and A. P. Dineshbabu, Mangalore Research Centre)



# Adoption of capture based aquaculture by fishermen of Upunda village, Karnataka: A success story

## Fishermen group

The fishermen society 'Sampradayaka Meenugara Sangha, ByndoorValaya' of Upunda village located at Byndoor participated in Capture Based Aquaculture with the researchers from CMFRI, Mangalore.

## Capture Based Aquaculture:

The concept of CBA was introduced in this village by collection of *Lutjanus argentimaculatus*, *Etroplus suratensis* and *Lates calcarifer* fingerlings and stocking in floating cages of 2.5 m x 2.5 m x 2 m, made of Netlon (mesh of 30 mm) lined with nylon net. It was envisaged to use local seeds for culture, in addition to

assure good production seeds for *Lates calcarifer* was supplemented by CMFRI. The netlon cages was designed and fabricated by CMFRI with the participation of local fishermen. Five cages were provided to the fishermen for stocking the fingerlings.

Feeding was done with locally available trash fish and also fish waste from fish processing areas/plants.

Theses cages were harvested during July, 2011, when the mechanized fishing is banned. The *Lutjanus* spp attained an average weight of  $755 \pm 415$  g ranging from 105 to 1914 g. The pearlspot ranged from 37 to 222 g ( $96 \pm 35$ g).

About 255 numbers of seabass of average weight  $1819 \pm 540$  g was harvested. The total production from the cages including seabass, red snapper and pearlspot was around  $\sim 400$  kg realizing a farm gate price of  $\sim ₹ 75,000$  per cage.

The popularization and adoption of the concept of CBA among the fishermen would generate alternate livelihood, income and contribute to fish production of the region. The persistent efforts to bring forth a selective contact change on the part of the researchers and extension system of the Centre is expected to bring about a major social change among the coastal fisherfolk of this village.



Artisanal cages used for cage culture



View of harvested Red snapper *Lutjanus argentimaculatus*

## Brain Storming session on Marine Fisheries Resource Enhancement at Mangalore RC



Brain Storming session progressing

The Brain Storming session on "Marine Fisheries Resource Enhancement and Conservation in Karnataka" was held at the Mangalore Research Centre of CMFRI, Mangalore on 12.08.2011 with the participation of representatives from the Karnataka State Fisheries Department, Karnataka Fisheries Development Federation, Office Bearers of the Mechanized and Traditional Boat Owners Union, College of Fisheries, Mangalore and post-harvesting and processing sector. The aim of conducting the brain storming session involving different stakeholders in the fisheries sector was to identify researchable issues in the marine fisheries sector of Karnataka and to plan future research programmes for the Institute during the forthcoming plan period.



## Harvest of Asian Seabass from Open Sea Cage Culture at Antarvedi, East Godavari, Andhra Pradesh

Under cage culture demonstration project, sponsored by the Ministry of Agriculture, Govt. of India, operated by the Central Marine Fisheries Research Institute at Antarvedi, East Godavari District, Andhra Pradesh the harvest was done on 6<sup>th</sup> July, 2011 in the presence of

Shri Rapaka Bara Prasad, Hon'ble Member of Legislative Assembly, Andhra Pradesh and other dignitaries. A total of 5.95 t was harvested from the cage. The circular HDPE 6mt. diameter cage was moored with coconut poles and stocked with 10,000 numbers of Seabass seed

with average wt. of 24 g in the Month of December, 2010. The fish were fed with trash fish available from the nearby landing centre. The maximum size recorded during the harvested was 1.6 kg. with an average weight of 0.8 kg. The percentage of survival recorded was 74 %.



Shri Rapaka Bara Prasad, Hon'ble MLA observing the fish growth



Harvest in progress

## Spurt in threadfin bream landings following the monsoon trawl ban at Cochin and Neendakara



Decks of fishing boats loaded with threadfin bream catch



Threadfin bream catch at Neendakara Fisheries Harbour

Spurt in the landings of threadfin breams was recorded during the month of August, 2011 immediately following the monsoon trawl ban, at Cochin, Munambam as well as Neendakara fisheries harbours. Threadfin breams formed >90% in the trawl landings on most of the days during the first half of the month comprising mainly *Nemipterus mesoprion*, in spite of the

heavy exploitation of juveniles of the species in the preceding years. According to the fishermen, the landings at Cochin and Munambam harbours were caught mainly from the fishing grounds off Ponnani-Chettuva and at Neendakara from Anchuthengu area where they could locate rich grounds for threadfin breams at depths ranging 100-125 m. The catches were sent mainly to

Mangalore/Ullal for surumi production and also to local markets in Kerala as well as Tamil Nadu for consumption. The spurt in landings led to lowering of the price which came down to around ₹15 to 25 per kg at the harbour. However, the landings of threadfin breams started showing a decline from 20 August onwards.

(Demersal Fisheries Division)



## Report on the Oil spill off Mumbai during August 2011



The Cargo Vessel MV Rak

The Cargo Vessel MV Rak grounded on Mumbai coast causing oil spill along Juhu-Versova beach from 7<sup>th</sup> August 2011 onwards. About 100 metric tons of oil had been spilled into the sea. The field survey by MRC of CMFRI, Mumbai was undertaken at different location viz. Juhu, Versova, Bandra and Mahim where patches of oil on the sand were observed. Other areas affected by the oil spill were Nandgaon, Thal, Korlai, Borli and Saswane in Raigad district of Maharashtra. The tar balls were spotted in Dadar chowpatty, Bandstand and some other area along the coastline. The cross section of the sea water that has been affected by the oil spill was 9 x 1 km.

Coast Guard launched **Operation Paryavaran Suraksha** and spread about 2600 litres of Oil Spill Dispersant (OSD) in the area for cleaning purpose. Mangroves, fishing nets and landing centres were also found with oil smeared on them. The oil spill created panic among the fish eating public and civic authorities put a ban on consumption of marine fish for two weeks.



Picture showing the Impact of oil spill on mangroves

(Mumbai RC of CMFRI)

## Government of Kerala best farmers award declared

Smt. Jaya Rajeev of Keerthi group of Moothakunnam was awarded the Best Mussel farming group award 2010 of Ernakulam District presented on 6<sup>th</sup> September 2011. This group was trained in mussel and oyster farming by CMFRI.

Smt. Jaya Rajeev, Keerthi SHG, Moothakunnam receiving the district award for best mussel farmer-2010.



Dr. K. Venkataraman, Director, Zoological Survey of India presenting a memento to **Shri. V. Edwin Joseph**, Officer-in-Charge, Library and Documentation, CMFRI, Cochin in a scientific meeting held at Zoological Survey of India, Kolkata on 2-9-2011 for developing an Open Access Institutional Repository in India



## Foundation stone laid for Office-cum-Laboratory building of Vizhinjam RC of CMFRI



Honb'le Chief Minister of Kerala Shri. Oommen Chandy, Dr. Shashi Tharoor, MP, Smt. Jameela Prakasam, MLA, Dr. S. Ayyappan, Secretary, DARE and Director General, ICAR and Dr. B. Meenakumari, DDG (Fy.), ICAR in the inaugural function

Hon. Chief Minister of Kerala, Shri Oommen Chandy inaugurated the function by lighting the ceremonial lamp in the new site leased for 99 years to the Centre on 3<sup>rd</sup> September 2011 at Vizhinjam. Further, the Chief Minister

unveiled the foundation stone for the proposed Office cum Laboratory complex in the presence of Dr. Shashi Tharoor, Member of the Parliament, Smt. Jameela Prakasam, Member of the Legislative Assembly, Dr. S. Ayyappan, Secretary,

DARE and Director General, ICAR, Dr. B. Meenakumari, Deputy Director General (Fy.), ICAR and Dr. G. Syda Rao, Director, CMFRI. The Chief Minister and other dignitaries also addressed the gathering.

## Awareness programmes among Fishermen at Mumbai



Meeting held at Dongari Chawk on 25.07.2011

For the ongoing consultancy project of the Municipal Corporation of Greater Mumbai (MCGM) and Mumbai Research Centre a series of interactive meetings

were arranged at Dongari Chawk, Uttan, Manori and Gorai to create awareness regarding Mott McDonalds Private Limited (MMPL) project. During July, 2011 These

meetings were jointly organized with the help of Centre for Social Action (CSA). On 25<sup>th</sup> July 2011, meetings were conducted at Dongari Chawk and Uttan. On 27<sup>th</sup> July 2011 meetings were conducted at Gorai and Manori. Dr. V.V. Singh, Principal Scientist, explained the research and extension activities of Mumbai Research Centre to the local fishermen. He also briefed the possible impacts of climate change on marine fisheries of India. Later Shri S. G. Raje, Retired Senior Scientist delivered interactive lecture regarding Marine fisheries sector problems and solutions.

*(Mumbai RC of CMFRI)*

## Marine Stewardship Council, UK team visits Oyster farms in Moothakunnam



Dr.K.S.Mohamed explaining the post harvest process of oysters

Dr. Oluyemisi Oloruntuyi, Programme Director and Ms. Cassie Leisk, Programme Officer,

Marine Stewardship Council, UK and Vinod Malayilethu, Senior Coordinator, WWF - India visited oyster farms in Sathar

Island, Moothakunnam for collecting information and taking forward oyster farming under the enhanced category of Marine Stewardship Council fisheries certification (MSC) programme. Under this category of fisheries certification, the seeds/spat for farming has to be procured from the wild and farming should be carried out under natural conditions. The current practice of oyster farming in Moothakunnam fits into this category of certification. Dr. K. S. Mohamed, Head Molluscan Fisheries Division explained the activities to the visitors.



## Distribution of sale proceeds and awards to oyster farmers



Dr.G.Syda Rao giving the sale proceeds to Smt. Santha

The Molluscan Fisheries Division organised a programme on 20<sup>th</sup> August 2011 to distribute the sale proceeds of the current year Oyster harvests to SHGs of Ernakulam District. The women SHG oyster farmers who were trained in various aspects of farming, harvest and post harvest

Adv. V. D. Satheesan, MLA, North Paravur, giving the award to Smt. Jayasree for the best live oyster marketing group



techniques under the NAIP scheme on high value shelfish made their harvest during June-July 2011.

Adv.V.D Satheeshan MLA of Paravur constituency of Ernakulam district was the Chief Guest and Director of CMFRI Dr.G.Syda Rao presided over the function. Other dignitaries were Dr. S. Girija, Director of NIFPHATT, Dr. C. R. Sathyavathi, Executive Director, SAF and Chef. Jose Varkey of Casino Hotel. The best oyster farm award went to Keerthi group and the best live oyster marketing award went to Theeram group.

## Observation of International Coastal Cleanup Day at Veraval



Beach Cleaning Programme at Veraval by CMFRI

J.G.S.S. Singh flagged off the programme at Birla Beach at 09:00 hrs. The volunteers cleaned off the beach from rags of non-degradable plastic wastes, passing a message to the students and public about the relevance of clean seas for the survival of human beings on earth.

The Regional Centre of CMFRI, Veraval observed International Coastal Cleanup Day on 17<sup>th</sup> September, 2011 conducting a Beach Cleaning Programme at Birla Beach near Veraval Light House. The Indian Coast Guard being the national nodal agency for observation of the

International Coastal Cleanup day, the ICGS, Veraval coordinated the event. It was well attended by volunteers from various schools in Veraval, Fisheries College, NGOs, Government Departments and Gujarat Police etc. The ICGS Commanding Officer Commandant

### CMFRI trained mussel farmer gets award



Shri. P. P. Balakrishnan, Kasargod District, who was trained by CMFRI, was awarded the Best Mussel farmer of Kerala 2010



## E-publishing training



Participants from CMFRI and CIFT for e-publishing training held at CMFRI during 27-29, Sept 2011 along with Ms. Aruna T. Kumar, Mr. Dayashankar, ICAR, New Delhi, Dr. E.V. Radhakrishnan, Head, CFD and Dr. P. C. Thomas, Scientist-in-Charge (HRD)

## Training programme on Marine Ornamental fish breeding



A training programme on Marine Ornamental fish breeding was conducted at Vizhinjam Research Centre of CMFRI for fish farmers from 3rd to 8th August organised by ATIC. The program was inaugurated by Adv. Anto Marcelin President, Poovar Gram Panchayath. Training involved theory classes, field visits, on hand breeding trials and setting up of marine aquarium tanks.

Adv. Anto Marcelin President, Poovar Gram Panchayath inaugurating the training programme

## Workshop on Reproductive dynamics and stock assessment of Crustaceans Organised at Cochin

A workshop on the "Reproductive dynamics and stock assessment of Crustaceans" was organized by the Crustacean Fisheries Division at CMFRI, Kochi during 18-23<sup>rd</sup> July, 2011. All the Scientists of the Crustacean Fisheries Division from headquarters and different centres of CMFRI participated in the workshop.

Dr.M.Srinath, former Head of

Fisheries Resource Assessment Division, CMFRI was invited to share his expertise in stock assessment to the participants and He demonstrated step by step analysis of fishery data of FISAT and Yield software. Dr. V.D. Deshmukh, Principal Scientist & SIC, Mumbai Research Centre of CMFRI lead the interactive session with the scientists and discussed the various aspects of shrimp biology and

reproductive dynamics. A training programme on Primer 6.0 software was also organised concurrently with the workshop. Dr. Ajmal Khan, Professor Emeritus, Annamalai University demonstrated data handling and analysis using the software which was also attended by scientists from Demersal Fisheries Division.



## Scientific Advisory Committee Meeting



Inauguration of SAC meeting

The 3rd reconstituted Scientific Advisory Committee meeting of KVK was held on 21<sup>st</sup> June 2011. The programme was inaugurated by Dr. S.

Prabhukumar, Zonal Project Director, ICAR, TOT Projects, Zone VIII, Bangalore. Dr. G. Syda Rao, Director, CMFRI and Chairman, Scientific Advisory Committee presided over. Representatives from various line departments, farmers, social workers and all KVK staff participated. During the meeting, two flagship programmes viz., *Fisheries and Urban horticulture* were identified for the KVK.

## Programme for Women

A Mahila meet was organised at KVK, Narakkal campus on 25.08.2011 in which 20 numbers of selected women participated. They were educated on the KVK's women development programmes followed by interaction on their training/advisory requirement. Smt. P. Sreeletha, SMS (Home Science) lead the programme and Dr. K. Smita Sivadassan, SMS, (Animal Husbandry) and Miss. Dipti N.V. Programme Assistant, interacted with the participants. Subsequently on 02-09-2011, a method demonstration on Organic fertilizer preparation was conducted as per their request.



A view of Mahila Meet

Seven numbers of training programmes for women on value addition of fish, vegetables and fruits were conducted by

Smt. PSreeletha, SMS (Home Science), at various places in the district in which 175 numbers of women got benefitted.

## d-SAFUL programme 2011-12 Farmer's day celebrations



Harvesting of chilly from demonstration farm

The second phase of Demonstration Farm for Sustainable Agriculture for Urban Landscape (d-SAFUL) programme is in progress at CMFRI, Thevara Campus. Vegetable crops viz., Brinjal, Tomato, Okra, Chilly, Maize, Baby corn, Drumstick, Tapioca and flower crops viz., Hybrid hibiscus, Hybrid marigold, Tuberose, Heliconia, Jasmine, Zinnia, different varieties of Ixora, Nerium, Alamanta etc., are grown. Organically grown fresh vegetables are being sold at the farm gate at regular intervals.



The KVK celebrated Kerala farmers day (Chingam 1, 17<sup>th</sup> August 2011) by organising 5 training classes and demonstrations in various parts of the district on various subjects viz. *Fodder cultivation practices for enhancing dairy production* (Dr. K. Smita Sivadassan, SMS, Animal Husbandry), *Organic farming* (Shri. Vijendra Kumar Meena, SMS, Agronomy), *Upland paddy cultivation* (Shri. F. Pushparaj Anjelo, SMS, Agril. Extension), *High density planting of Banana* (Shri. B. Suresh Kumar, Farm Manager), *Organic farming techniques* (Miss. Dipti N.V. Programme Assistant). More than 500 farmers were benefitted from the classes.



## Week long celebration of Official Language at Mandapam RC



Weeklong celebration of Official Language at Mandapam Centre was inaugurated by Dr. G. Syda Rao, Director, CMFRI on 14.09.2011. Dr. G. Gopakumar, Scientist-in-Charge welcomed the gathering. Dr. I. Rajendran, Senior Scientist presented the Annual Report. Director gave the inaugural address and Smt. N. Gomathi, Private Secretary proposed vote of thanks.

◀ Dr. G. Syda Rao, Director, CMFRI  
inaugurating the Hindi Week Celebrations

## Hindi Day celebrated at CMFRI



Workshop on Hindi implementation at Visakhapatnam RC



Prize distribution by Mr. Rakesh Kumar, Chief Administrative officer at Tuticorin RC



Dr. R. Badoniya, SIC, RC of CIFT, Veraval giving away prizes to winners at Veraval Regional Centre



Prize distribution by Mr. Anil Kumar, Administrative officer at Tuticorin RC

## Veraval Regional Centre hosted the Institute Joint Staff Council Meeting



Sixth meeting of 11<sup>th</sup> Institute Joint Staff Council was held at Regional Centre of CMFRI, Veraval on 8<sup>th</sup> August, 2011. The meeting was chaired by Dr. G. Syda Rao, Director, CMFRI and attended by the senior officers of the Institute and 10 members of IJSC from staff side.

◀ IJSC meeting in progress





Dr. Amar Nath, Administrator, Lakshadweep  
visiting the Museum on 26.08.2011



Shri. S.S Jawahar, I.A.S. Commissioner of Museums,  
Chennai visiting the Museum on 05.09.2011



Dr. Y.S. Yadava, Director, BOBP, Chennai visiting the Museum on 14.07.2011.

## CMFRI Recreation Club activities



The winners of Pokkalam Team receiving Trophy from the Director



Pulikkali and Mahabali at CMFRI lawn



Vadam vali competition

Onam Celebrations in CMFRI commenced from 31.08.2011 to 08.09.2011 by decorating with *Pookkalam* with the whole hearted participation of all Research Scholars and executive members of CMFRI Recreation Club and lighting of the lamp by the Director, CMFRI on every day by 08.30 AM. Onam was celebrated at CMFRI on 06.09.2011. In connection with the celebrations, Pookkalam Competition, traditional *Onasadhya*, Vadam Vali for men, musical chair for women, *Pulikkali* and arrival of *Mahabali* was organized. 8 groups participated in Pookkalam Competition.

The rolling trophy for the year 2011-2012 for CMFRI Pookkalam Competition was bagged by the FRA

Division. The combined group of Admn., Audit&Accts and EMC, and MBTD bagged the second and third position respectively.

The trophy and prizes for the winners and runners up of the various competitions were distributed by the Director and Patron of CMFRI Recreation Club. The traditional *Onasadhya* was served to all staff members in CMFRI Departmental Canteen. A Kerala Art form *Pulikkali* was performed by the Research Scholars. One of our staff performed as *Mahabali* for illuminating the celebration.



Athappookkalam at Manglore RC



Cultural Programme by Children of staff  
members at Mandapam RC

### Dr. G. Syda Rao, Director

- Attended the Governing Body Meeting of ICAR on 04.07.2011
- Attended the Director's Conference on 15.07.2011
- Attended the 83<sup>rd</sup> ICAR Foundation Day and Award ceremony of DAC & ICAR on 16.07.2011.
- Attended the Sub-group meeting of DARE on 17.07.2011
- Attended the Second meeting of the Working Group on the Development and Management of Fisheries and Aquaculture for Twelfth Five Year Plan at CIFRI, Barrackpore on 22.07.2011.
- Visited Veraval Regional Centre of CMFRI on 05.08.2011
- Visited Space Application Centre on 09.08.2011. Had discussion with the Director of Space Application Centre and the Scientists of Marine Research Wing.
- Visited Mumbai Research Centre of CMFRI on 09.08.2011
- Attended the Brain storming session on certification and Eco labeling in Fisheries at NASC on 27.08.2011.
- Visited Visakhapatnam Regional Centre of CMFRI on 28.08.2011.
- Visited Chennai Research Centre of CMFRI on 30.08.2011
- Visited Vizhinjam Research Centre of CMFRI on 02.09.2011 and 3.09.2011 participated in the Foundation stone laying ceremony along with DG and DDG (Fy), ICAR.
- Visited Mandapam Regional Centre of CMFRI on 14.09.2011.
- Visited Tuticorin Research Centre of CMFRI on 15.09.2011.

**Dr. E. Vivekanandan**, Principal Scientist and Scientist in Charge participated in the BOBLME (FAO) Workshop on "Communicating Science Effectively - Scientific Paper Writing" held at Phuket, Thailand during 22-25 August 2011.

- Participated in Planning Commission Group VIII meeting on Agricultural Extension in Difficult Areas at TANUVAS, Chennai. on 1st July 2011
- Presented a talk on "Developing Management Systems in Capture Fisheries" to international trainees in BOBP-IGO organized training programme on Code of Conduct for Responsible Fisheries at Chennai, on 21st July, 2011
- Participated in the First Bi-National Stakeholder Consultation on "Sustaining the Gulf of Mannar Ecosystem and its Resources" organised by BOBP-IGO and

### Dr. K. S. Sobhana at State University of New Jersey, USA



Dr. Sobhana at the Stem Cell Core Facility, Rutgers University, USA

**D**r. K. S. Sobhana, Sr. Scientist, DFD, CMFRI, Kochi underwent three months training on "Stem Cell Research" during 1st April to 30th June 2011 under the supervision of Dr. Rick I. Cohen,

Director, Stem Cell Core Facility, Stem Cell Research Centre, W.M. Keck Centre for Collaborative Neuroscience, Rutgers, the State University of New Jersey, USA. The training was approved under the HRD programme of NAIP (Component-I)

BOBLME Project at Rameswaram on 5 - 6 September 2011 and presented a talk on "Ecosystem Approaches to Marine Fisheries".

**Dr. Vinay D Deshmukh**, Principal Scientist & Scientist-in-Charge participated meeting with Hon. State Cabinet Minister for Fisheries regarding purse seine fishing ban in Maharashtra on 21.06.2011 and 08.09.2011.

**Dr. G Maheswarudu**, Principal Scientist and Scientist-in-Charge attended the 4th meeting of Farmers First Committee organized by the Regional Centre of Central Institute of Freshwater Aquaculture at Vijayawada on 13th August, 2011.

**Dr. T. V. Sathianandan**, Head (FRAD) - in-charge & Sr. Scientist, **Dr. R. Narayanakumar**, Head (SEETTD)- in-charge & Sr. Scientist, attended the workshop on "Marine Fisheries in India" organized by Department of Animal Husbandry Dairying & Fisheries in collaboration with World Bank on 7th July 2011 at New Delhi.

**Dr. R. Narayanakumar**, Senior Scientist & HOD in charge, SEETTD, attended the 'Meeting of Board of Studies, Department of Agricultural Economics, Annamalai University, Chidambaram on 1st July 2011.

- Attended the 'Meeting of RFD Nodal Officers at the Fisheries Division of ICAR, New Delhi on 1st September, 2011.

**Dr. P. Kaladharan**, Principal Scientist & Scientist-in-charge attended the State level KVK Interface Meeting in Kerala and Lakshadweep on 7th July 2011 at KAU, Mannuthy, Thrissur.

**Dr. Veerendra Veer Singh**, Principal Scientist, participated in Institute Management Committee (IMC) meeting at NBFGR, Lucknow as member on 03.09.2011.

**Dr. Pratibha Rohit**, Senior Scientist, PFD, attended the First Technical and Financial Evaluation Committee (TFE), Development of Tuna Fishery Forecast system (TUFS), at INCOIS, Hyderabad on 21-07-2011.

**Dr. C. Ramachandran**, Senior Scientist participated and presented a lead paper on 'Eco-labeling and Sustainable Fisheries Management' in the brain storming session on Eco-labeling on 27th August, 2011 organised by National Academy of Agricultural Sciences held at NAAS Complex, New Delhi.

**Dr. N. Aswathy**, Scientist (SS), SEETTD attended the training programme on "Data analysis using SAS" at University of Agricultural Sciences, Bangalore from 8th to 13th August, 2011.

**Shri. K. R. Sreenath**, Scientist, Marine Biodiversity Division and **Shri. Gyanaranjan Dash**, Scientist, Crustacean Fisheries Division, attended the meeting at Space Application Centre (SAC), Ahmedabad, on 09.08.2011.

- Participated in hands-on training on shallow water sea cage culture and monitoring at Narasapur for period of 6 weeks from 07.06.2011 to 19.07.2011.

**Shri. V. Edwin Joseph**, Officer-in-charge, Library and Documentation delivered a talk on "Open Access Institutional Repository at CMFRI" in the scientific meeting held at Zoological Survey of India, Kolkatta on 1-9-2011.



## RETIREMENTS

Name <i>Retirement on Superannuation</i>	Designation	Center	w.e.f
1. Shri T. Dhandapani	T-5 Technical Officer	Madras RC	31.07.2011
2. Shri Hameed Batcha	T-5 Technial Officer	Madras RC	31.08.2011
3. Shri. M. Raghunathan	Asst. Adm. Officer	Vizhinjam RC	30.09.2011
4. Smt. Rosy Joachim	Private Secretary	Madras RC	31.07.2011
5. Shri A. Mari	Skilled Support Staff	Mandapam RC	31.07.2011
6. Shri G. Vijayarengan	Skilled Support Staff	Madras RC	31.07.2011



Shri T. Dhandapani



Shri Hameed Batcha



Shri M. Raghunathan



Smt. Rosy Joachim



Shri A. Mari



Shri G. Vijayarengan

## APPOINTMENTS

Name	Designation	Center	w.e.f
1.Dr. Rengarajan Jayakumar	Sr. Scientist	Mandapam RC	22.06.2011 FN
2.Shri Ratan P. Naik	Lower Division Clerk	Karwar RC	28.06.2011 FN
3.Smt. Dhanya M.B	Stenographer Grade- III	Hqrs. Kochi	04.08.2011 FN

## PROMOTIONS

Names	From	Promoted To	Center	w.e.f
1.Dr. Mini K.G	Scientist Assistant	Sr. Scientist	Hqrs. Kochi	21.07.2011
2.Smt. V.K. Sobha		Assistant Administrative Officer	Hqrs. Kochi	01.07.2011

## TRANSFERS

Name	Designation	From	To
1.Shri V. Sathiyanesan	T-4 (Sr. Library Assistant)	Visakhapatnam RC	Mandapam RC w.e.f 15.07.2011 FN
2.Smt. M.P. Kaladevi	Lower Division Clerk	Hqrs. Kochi	Vizhinjam RC w.e.f. 08.08.2011 FN

## INTER-INSTITUTIONAL TRANSFER

Name	Designation	From	To
1.Smt. Molly Lazer	Assistant	ICAR, New Delhi	CMFRI, Kochi. w.e.f. 16.06.2011

## Ph.D. awarded

Smt. Shoba Joe Kizhakudan, Scientist, Demersal Fisheries Division, Madras RC of CMFRI, was awarded the Degree of Doctor of Philosophy in Zoology of the University of Madras for her thesis entitled "An inquiry into the silverbelly resources exploited from Madras coast" on 29<sup>th</sup> August 2011.



## Radio documentary

Dr.Vipinkumar.V.P, Senior Scientist prepared and organized the background for the broadcast of a radio-documentary on CMFRI at 'Kisanvani programme' of Kochi FM which was broadcast twice in All India Radio in two parts on 19<sup>th</sup> & 20<sup>th</sup> August and 23<sup>rd</sup> and 24<sup>th</sup> September, 2011.

## Exhibitions

- 'Bharath Nirman-2011' exhibition held at Mannar, Aleppey from 21<sup>st</sup> to 23<sup>rd</sup> August 2011.
- 'Haritholsavam' exhibition at Maradu from 3<sup>rd</sup> to 7<sup>th</sup> September, 2011.
- 'Haritholsavam' exhibition held at Agricultural College, Vellayani from 19<sup>th</sup> to 24<sup>th</sup> September, 2011. CMFRI won the 'Best Pavilion Award'.



Smt. K. P. Salini receiving the 'Best Pavilion Award' for CMFRI stall



Smt. Sheela PJ, receiving the Indira Gandhi Rajbhasha Puraskar from Honourable President of India

## CMFRI bags National Indira Gandhi Rajbhasha Puraskar

On the occasion of Hindi Day on 14<sup>th</sup> September, 2011 the Honourable President of India Smt. Prathibha Devi Singh Patel awarded the Indira Gandhi Rajbhasha Puraskar, to CMFRI for the excellent Hindi implementation for the category of Boards / Autonomous Bodies / Societies etc. in Region 'C' for the year 2009-2010 in the programme organized at Vigyan Bhavan, New Delhi.

Shri P. Chidambaram, Home Minister presided over the function. Shri Mullappilli Ramachandran and Shri Jitendra Singh, Ministers of State for Home Affairs graced the Occasion. Smt. Veena Upadhyaya, Secretary, Department of Official Language proposed the vote of thanks.

On behalf of the Institute Smt. Sheela PJ., Assistant Director (OL) received the award.



## CMFRI to host 9th Indian Fisheries Forum

19-23 December 2011  
Chennai

[www.9iff.org](http://www.9iff.org)

**cadalmin**  
CMFRI Newsletter

Cadalmin, the CMFRI Newsletter is a quarterly publication of the Central Marine Fisheries Research institute, Cochin. The publication gives an insight into the major events of the quarter, besides highlighting the salient findings in the research front and dissemination of technological know-how to the farming community.

