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CMFRI Newsletter

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Director General, ICAR visits CMFRI

CMFRI to host 9th iff

see page 5 & back cover

*Wish you
Happy New Year
2011*



CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
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Published by

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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 distributed along the Indian coastline, catering to the marine fishery policy needs of all maritime states of the country.



Director speaks

Dear Colleagues,

Another eventful and successful year has passed in the history of CMFRI, which witnessed a series of technological developments in marine fisheries research. Starting with successful demonstration of open sea cage farming of lobsters and ornamental



fishes at Kanyakumari and Mandapam, we followed our success at Karwar and Chennai. The technological breakthrough in induced breeding of Cobia at Mandapam is the pinnacle of our research achievements this year. We also established our credibility in product development from natural resources by developing Green Mussel Extract (GMe) and VARNA the marine ornamental fish feed.

We successfully completed the National Marine Fishery Census 2010. We feel proud to initiate the process of hosting the 9th Indian Fisheries Forum to be held at Chennai during December 19-23, 2011 by launching the logo and website. We have also reached a milestone in improving our visibility in the global marine fisheries research scenario by launching Eprints@CMFRI, which is the open access research outputs repository of Central Marine Fisheries Research Institute. With 7,000 research publications uploaded on our website, we stand as the first ICAR Institute to reach this stage.

All these developments bear testimony to our concerted, committed and determined effort. During the ensuing year also, we shall continue, with the same enthusiasm, our march towards a sustainable marine fisheries regime. We shall look forward to a Happy, Prosperous and Productive New Year 2011.

Wishing You All Happy New Year 2011.

Dr. G. Syda Rao
Director

Front Cover: Dr. S. Ayyappan, Director General, ICAR addressing the staff of CMFRI



Lighting of the Ceremonial lamp by the Director General

Director General, ICAR visits CMFRI

Dr. S. Ayyappan, Director General, ICAR & Secretary, DARE visited CMFRI, Cochin on 26-11-2010. He

visited the laboratories, Museum, Aquarium and Library of the Institute. He also addressed the scientists and staff

of the Institute and ensured full support for the development activities of the Institute.



Director General addressing the scientists

Open Access Institutional Repository launched by the Director General, ICAR



Dr. S. Ayyappan, Director General, ICAR inaugurating the Repository



CMFRI, in its journey towards establishing an Open access Institutional Digital Repository in the library, has uploaded about 7,000 scientific papers of their staff members published since 1953, which was launched as 'eprints@cmfri' on 26th November 2010 by the Honourable Dr. S. Ayyappan, Secretary, DARE and Director General, ICAR in a function

held at conference hall. Dr. G. Syda Rao, Director, CMFRI presided over the function. Dr. E. V. Radhakrishnan, Head, CFD welcomed the gathering. Dr. T. K. Srinivasa Gopal, Director, CIFT offered felicitation. Shri. V. Edwin Joseph, Officer-in-Charge, Library and Documentation briefed the importance of the Repository and proposed the vote of thanks.

'Eprints@cmfri' is the Open Access research outputs repository of Central Marine Fisheries Research Institute, which includes the publication of the Institute's staff members in the journals, conferences, seminars, symposia, technical reports, theses, patents and related publications. It is an open access online achieve and users anywhere in the world can freely download the

articles from the repository and reproduce them for research, educational or non profit purposes without prior permission or charge, provided authors are acknowledged. Request Copy form available in the repository can be used for documents to which full text download is restricted due to publisher's embargo.

To create this repository in the

INTERNET, the open source software developed by the University of Southampton at United Kingdom is installed in the library server. The repository is given a name as eprints@cmfri.

The meta-data of the repository is made available to search engines like Google, Google Scholar, OAlister, Base, Scientific Common, Scirus etc. This has been listed in the Registry of

Open Access Repository, UK, Open DOAR(Directory of Open Access Repository), UK and Avano OAI harvester. This has placed CMFRI as the first ICAR Institute to reach this stage. CMFRI also ranks first at national level and fifth at global level among the open access repositories on marine sciences.

This Institutional Repository can be accessed at: www.cmfri.org.in

Release of the Special publication



Dr. S. Ayyappan, Director General, ICAR released the CMFRI Special Publication No.104 entitled 'Socio-economic dimensions of seaweed farming in India' authored by Dr. M. Krishnan and Dr. R. Narayana Kumar. The publication has given a comprehensive picture of the status of seaweed collection as well as farming in India with a case study on the socio-economic transformations in Ramanathapuram Dist. of Tamilnadu.

Director General, ICAR inaugurates the Soil and Water Testing Lab of KVK

The Director General, ICAR, Dr. S. Ayyappan, inaugurated the Soil and Water analysis laboratory of Krishi Vigyan Kendra on 26-11-2010 at Residential Complex of CMFRI at Thevara. He also went around the various interventions like roof top organic gardening of vegetables, low cost drip irrigation system, back yard poultry unit, rain water shelter for high value floriculture, precision farming units, earth worm composting unit, rain water harvesting unit, nurseries for onion cabbage and cauliflower, high-density planting of banana demonstrated under the d-SAFUL (demonstration of sustainable



Inauguration of the Soil testing Lab by the Director General

agriculture for urban landscape) of KVK at Thevara. To mark the occasion the

honourable DG planted a seedling of nutmeg in the farm.



Director General planting commemorative seedling



Director General visits Floriculture unit of KVK

Logo and Website of 9th Indian Fisheries Forum launched



Lighting of Ceremonial lamp by Ms. Leena Nair, IAS

The logo and website (www.9iff.org) of the 9th Indian Fisheries Forum (9thiff) was launched in a function organized at CMFRI, Kochi on 19th November 2010. Ms. Leena Nair, IAS, Chairperson, MPEDA launched the website, while Dr.E.G.Silas, Former Vice-Chancellor, Kerala Agricultural University unveiled the logo of 9thiff. Dr.E.Vivekanandan, Principal Scientist, CMFRI and Co-convenor of 9thiff welcomed the gathering, gave a brief note on Asian Fisheries Society (AFS), Asian Fisheries Society Indian Branch (AFSIB), Indian Fisheries Forum (IFF) and details of the 9thiff to be held at Chennai during 19 – 23 December 2011. The President of the function and Convenor of 9thiff, Dr.G.Syda Rao, Director, CMFRI gave the presidential address and elaborated the active participation of CMFRI in AFS and AFSIB activities. The Convenor also threw light on tentative theme of the 9thiff as "Renaissance in fisheries – Strategies and

Outlook" and gave broad idea about the different technical sessions which includes fisheries resources, recreational fisheries and sustainable management, genetics, breeding and biotechnology, aquatic health (nutrition, production and enhancement), environmental impacts and aquatic health, harvest and post harvest technology, socio economics, marketing and livelihoods, fisheries policies, trade and governance and climate change and disaster and management. Unveiling the logo, Dr. E. G. Silas expressed his happiness in attending the function and admired the capabilities of CMFRI in organizing the 9thiff. He also appreciated the artist in designing the conceptual logo. He further stressed upon the need for appropriate attention in the forthcoming forum regarding certain topics like restoration of depleted stocks. Ms.Leena Nair appreciated the pivotal role of

CMFRI and extended full support in organizing the 9thiff. The chief guest also appreciated the self reliance shown by CMFRI in designing the website and logo. Dr.T.K.Srinivasa Gopal, Director, CIFT and Dr.V.N.Sanjeevan, Director, CMLRE offered felicitations and extended their full support for the forum. The function came to an end with a formal vote of thanks by Dr.A. Gopalakrishnan, Principal Scientist (NBFGR, Kochi) and Co-convenor, 9thiff.



Ms. Leena Nair



Dr. E. G. Silas



Dr. T.K. Srinivasa Gopal



Dr. V.N. Sanjeevan



Dr. E.G. Silas unveiling the logo



Ms. Leena Nair launching the website

Lucrative culture of Lobsters in open sea cages off Kanyakumari

After the initial success of lobster farming through the MoA cage culture project at Kanyakumari, another group of fisher folks came forward voluntarily and ventured lobster farming with the guidance of scientists and technical staff of Vizhinjam Research Centre of CMFRI, Vizhinjam. The team of lobster farmers from Kanyakumari was provided with 6m diameter HDPE cages through the National Fisheries Development Board (NFDB) project. Lobsters were stocked and cultured in the cages by the team off Kanyakumari. From one of these cages, a total of 172 kg of lobsters was harvested on 8th December, 2010 - during incessant rainfall. The lobsters harvested from the cage fetched a gross income of Rs. 2,40,800/- at the current market price of Rs. 1400/- per kilogram of live lobsters.



Lobster harvest flagged off By Dr. Rukmani, Asst. Director of Fisheries, Kanyakumari

skills on cage mooring, net making, net tying and all other activities connected with open sea farming through their active participation. Periodical cleaning and removing of fouling organisms in cages were also accomplished by the team members.

lobster was estimated as one gram per day. On the harvest day (8-12-2010), Dr. Rukmani, Assistant Director of Fisheries, Kanyakumari District flagged off the programme and witnessed the progress of harvest along with fisheries officials, CMFRI staff and several fisher folks.



Chief Guest of the function Dr. Rukmani addressing the harvest meeting

The NFDB cages brought from Chennai were moored off Leepuram – Kanyakumari (08° 06.3552 N & 77° 33.9162 E) coast in 8.0 meters depth and located at about 1.5 km away from the shoreline in the open sea conditions. The inner (30 mm mesh) as well as outer net (55 mm mesh) were suspended as two separate pieces, overlapping at the floating HDPE pipe level. The inner net had a depth of about 3.0 metres below the water level. A HDPE ballast pipe of 2.5 inch diameter with holes drilled into it at regular intervals and inserted with three 16 mm steel wires served to maintain the correct shape of nets in their suspended position. Both the cages were moored using gabion boxes of 2 ton capacity. In addition, iron anchors of 75kg were used for the mooring. All the NFDB cage team members could develop their

The cages were stocked with baby lobsters with an average size of 73 g during August 2010. The stocked lobsters were fed daily with mussels as well as chopped low value fishes collected by the team members. The average growth of

Subsequent to the harvest, a meeting was conducted in the Kanyakumari Field Centre of CMFRI, Kanyakumari to felicitate the team members. The leader of the team, Mr. Eugene expressed his gratitude to Dr. G. Syda Rao, Director and the CMFRI staff for imparting the open sea cage culture technology skills to the fisher folks. In her talk, the Assistant Director expressed the hope that these mariculture ventures by CMFRI will sustain the fish production in future. She congratulated NFDB team of fisher folks to have taken up the lobster farming on a priority basis and successfully accomplishing the feat. Scientists from Vizhinjam, Dr. Rani Mary George, Dr. R. Sathiadhas, Dr. A.P. Lipton, Dr. Anil and Dr. Santhosh also spoke on the occasion.

(Vizhinjam Research Centre)



Harvested lobsters

Cultured seabass harvested at Mandapam Regional Centre

A successful harvest of seabass (*Lates calcarifer*) (Tamil: Koduva) farmed in sea cages by Mandapam Regional Centre of CMFRI was conducted on 20th October 2010 at Mandapam. This programme was a part of the open sea cage farming demonstration project funded by the Ministry of Agriculture. The hatchery produced seeds of seabass were successfully reared and stocked in two sea cages of 6 m diameter made of HDPE frames. The stocking was done during the month of February 2010. The farming was carried out for a period of seven months by feeding the fishes with locally available low value fishes like sardines. Methods for periodic cleaning and net cage exchange were also developed. The average initial length and weight of the fingerlings were 10 cm and 14 g respectively. The average final length and weight of the harvested fish ranged from 36 to 50 cm and from 500 to 1500 g, respectively. The modal length



Observing the seabass harvest

was 41 cm and the average weight of the harvested fish was 800 g. The harvest

was witnessed by the representatives of Self-Help Groups supported by NGOs.

Open sea floating cage at Antarvedi

Under MOA project, one 6 m dia open sea floating cage at Antarvedi, West Godavari district, Andhra Pradesh was launched on 9th December, 2010 for

the culture of Asian Seabass (*Lates calcarifer*). About 8000 nos. of seabass seed average wt. 35 g. was stocked and being fed with trash fish in a proportionate

manner. The culture is in progress and another two 6 m dia floating cages are in the process of launching at the same place.

Heavy landings of *Loligo singhalensis* by trawlers at Pamban



Loligo singhalensis landed at Pamban

Heavy landings of *Loligo singhalensis*, Ortmann, 1891 was observed at Pamban, along the Gulf of Mannar Coast, Tamil Nadu during the first fortnight of November, 2010 as bycatch from trawlnet fisheries mainly targeting medium to large pelagics off Pamban. The landings of this squid were ranging from ½ - 1 tonne per boat. The length and weight range were 102 – 216 mm

and 27 – 94.4 g respectively. The sex ratio (M:F) was found to be 1: 0.66. The gonads of both sex was observed to be fully ripe condition. The size of male was relatively larger than female. The catch was sold at the rate of Rs. 50 /kg i.e cheaper than the prize of cuttlefishes (120/Kg).

(Mandapam Regional Centre)

Unusual heavy landings of unicorn leather jacket at Chennai Fisheries Harbour



During the period from September to December 2010, unusually heavy landings of unicorn leather jacket *Aluterus monoceros* (Linnaeus 1758) were landed at Chennai Fisheries Harbour. Particularly in the month of November 2010 about 15 tonnes of unicorn leather jacket were landed by Mechanised Thangal Trawlers. The size range was 380-469 mm and the weight range was 550-950 g. The fishes were sold at the rate of Rs.50/- per fish.

(Chennai Research Centre)

Research Highlights

Occurrence of the spider crab with a sea anemone on its carapace at Mandapam waters

Generally, the spider crabs are known to carry some objects and animals on their backs using their hooked setae just to camouflage or to get mutual benefit. Previous investigations carried out on these species have reported the habit of carrying the sea anemones on their carapace. Large specimens, especially females, carry 2-4 anemones of varying sizes on their carapace. The anemones attach themselves to the dense velvet-like setae of the crab's carapace. During the day, the crabs themselves hide in the sand/mud, and only the anemones are obvious. When one physically detaches the anemones from the crab and leaves them next to it, the crab "plants" the anemones back.



Spider crab with a sea anemone on its carapace

In the present observation the berried *Doclea ovis* (Fabricius, 1787) female with its orange colored developing eggs was seen carrying the sea anemone as shown in the

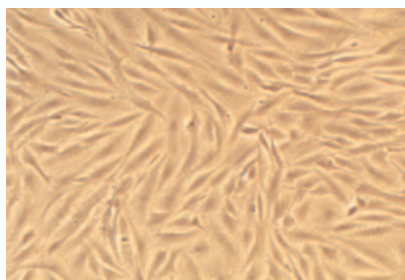


photographs.

(V. S. Kakati, Viniod K.
and N. Ramamurthy,
Mandapam Regional Centre of CMFRI)

Three cell lines developed from the grouper

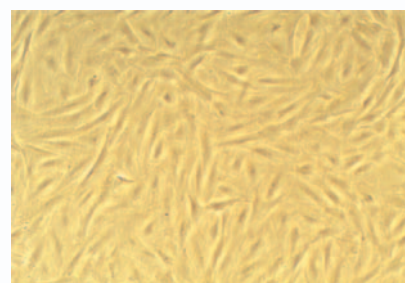
Three successful cell lines have been developed from the spleen and gill tissues of the Malabar grouper, *Epinephelus malabaricus*. EM4SpEx derived from explants of spleen tissue has been passaged 133 times over a period of 3 years. EM2GEx and EM3GEx both initiated from gill explants have crossed 122 and 138 passages respectively over 3 years. All the cell lines grow at an optimum temperature of $28 \pm 2^\circ\text{C}$ in Leibovitz L-15 medium supplemented with 2 to 5% foetal bovine serum. The cell lines have also been characterised by karyotyping. All the three lines have been successfully cryo-preserved in liquid



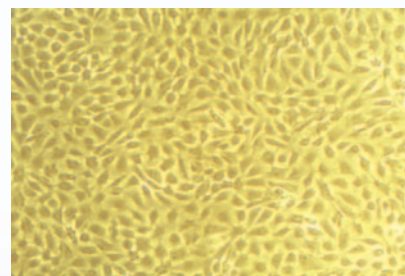
EM4SpEx

nitrogen and on revival shows very good survival rate.

(K.S. Sobhana,
Demersal Fisheries Division)



EM2GEx



EM3GEx

First record of *Nemipterus bipunctatus* in Mangalore Coast



Nemipterus bipunctatus

Five specimens of *Nemipterus bipunctatus* (Valenciennes, 1830) was landed by a multiday trawler in Mangalore on 23 November, 2010. This species has generally been reported under the name *Nemipterus delagoae* or *Nemipterus bleekeri*. This species is commonly called delagoa threadfin bream.

Landings of Trapezium horse conch at Pamban



Landings of *Fasciolaria trapezium* at Pamban

Fasciolaria trapezium a golden brown shell, commonly known as trapezium horse conch or fox conch, is a species of marine gastropod in the family Fascioliidae. They are landed as bycatch in bottom set gill net especially lobster net (*Shingi valai*) in Pamban fishing harbour. They are traditionally exploited

for shell craft industry in Tamil Nadu. Most of the shells are being brought from the Gulf of Mannar. It is one of the banned mollusc coming under schedule I of the Wild Life Protection Act, 1972. Hence shell craft industry is not using it. Some fishermen throw these shells into the sea as and when they catch but some of them

bring it to shore for operculum. Shells are being thrown on the beach after removing the operculum. Operculum is used to produce an adhesive matrix for coating incense sticks with powdered sandal wood and other sweet smelling materials. The average weight of an operculum is 1.8g. This operculum is sold to local merchant at the rate of Rs. 1800/kg.

(Mandapam Regional Centre)



Operculum of *Fasciolaria trapezium*

Occurrence of a rare coral fish *Cheilinus undulatus*



Cheilinus undulatus, Humphead wrasse

A single specimen of Humphead wrasse *Cheilinus undulatus* (Ruppell, 1835) was landed at Cochin Fisheries Harbour (Kerala) on 23.10.2010 by hooks and lines operated off Lakshadweep. The fish measured 471.5 mm in total length and weighed 1.9 kg. The Humphead wrasse *Cheilinus undulatus* (Ruppell, 1835), also

known as Napoleon wrasse, is the biggest member of the family Labridae and a giant among reef fishes. In 1996, this species was listed as vulnerable on the IUCN Red List due to the rapidly decreasing numbers in the live food market. It is included in the Appendix II of CITES for the countries Fiji, Ireland and the United States of America. In

2004, this species was listed as Endangered on the IUCN Red List. But still, the exploitation of the species is continuing all over the world due to its high demand in Live Reef Food Fish Trade (LRFFT). There are number of reports about the substantial decline in the stock due to large scale exploitation, in particular, related to its susceptibility to spear fishing and the growth of the LRFFT in which live *C. undulatus* fetches top prices. There are earlier reports of the landings of this species at Cochin Fisheries Harbour and the fish is sold at prices varying from Rs. 100 – 200. Lack of knowledge among the fishers on the importance of this species could be a possible reason for the unwarranted fishing of this species.

(Rekha J. Nair, Somy Kuriakose and S. Dineshkumar, Demersal and FRA Division)

Seasonal jellyfish fishery in Jakhau, Gujarat.

Make hay while the sun shines', this forms the motto of Jakhau's fishermen community after their waters has been infested by seasonal jellyfish blooms. The gillnets mainly operated by motorized boats used to get affected by the heavy deposition of jellyfish masses and thereby making them less efficient. Of late, backed by the heavy demand from China and South East Asian markets, fisher folks adapted to this situation by harvesting the jellyfishes itself. In Jakhau, around 75 odis (fibre glass canoes with inboard engine) are involved in jellyfish collection using multifilament gillnets.



Jellyfish (Fam: Rhizostomatidae) at Jakhau



Unloading plastic bags containing jellyfishes

Each odi brings harvest of around one tonne of jellyfish per day. The fishery has two seasons viz, November-December and April-May. Only one buyer was noticed there who procures the fish from the fishermen and carries out initial processing near the landing centre itself. These are then transported to Veraval for further processing and export by the buyer. The production reported for the season is approximately 800 tonnes as per the buyer which is more than three times of the previous years landing of 250 t.

Four finger threadfin spotted at Chennai



Eleutheronema tetradactylum

Occurrence of the Threadfin group, Polynemidae family, species *Eleutheronema tetradactylum* is reported for the first time along Chennai coast. Usually *Polynemus indicus* group of threadfin is only landed at Chennai coast. On 25.11.2010, about 100 kgs of four finger threadfin

was landed by Mechanised trawler at Chennai Fisheries Harbor. The size range was 250-289 mm and the weight range was 140-200 g. This species has been previously reported from Cochin, India in 1980.

(Reported by S. Mohan and S. Rajapakyam, Madras RC of CMFRI)

Seasonal ginger prawn fishery in Gulf of Kutch

Fishing for the ginger prawn (*Metapenaeus kutchensis* George, George and Rao, 1963), a seasonal fishery, started towards the end of July, 2010 in various places such as Madherki, Tikker and Chera of Soorajbari district adjacent to the Little Rann of Kutch in the Gulf of Kutch region of Gujarat. The team of scientist and technical staff of the centre made periodic visits to these centres during fishing season and collected hydrographic and fishery data. The fishing season starts towards the end of July every year when the creeks and adjoining areas of the Little Rann of Kutch get flooded by the south-west monsoon rains and lasts until these places are dried up in October. The fishery was better compared to the previous year and in Tikker and Surajbari (Chera) 630 tons of prawns valued at Rs 5.3 crores 840 t valued at Rs 5.88 crore respectively were fished within a period of 2 months. The constraints and advantages of the fishery are being studied by the centre.

Heavy landings of goat fish and threadfin bream at Mangrol, Gujarat



Upeneus moluccensis



Nemipterus mesoprion

A large quantity of *Upeneus moluccensis* (Bleeker, 1855) and *Nemipterus mesoprion* (Bleeker, 1853) were landed

by the trawlers in the Mangrol landing centre on 7th December, 2010. Nearly 1.5 tons of goat fishes and 5-6 tons of

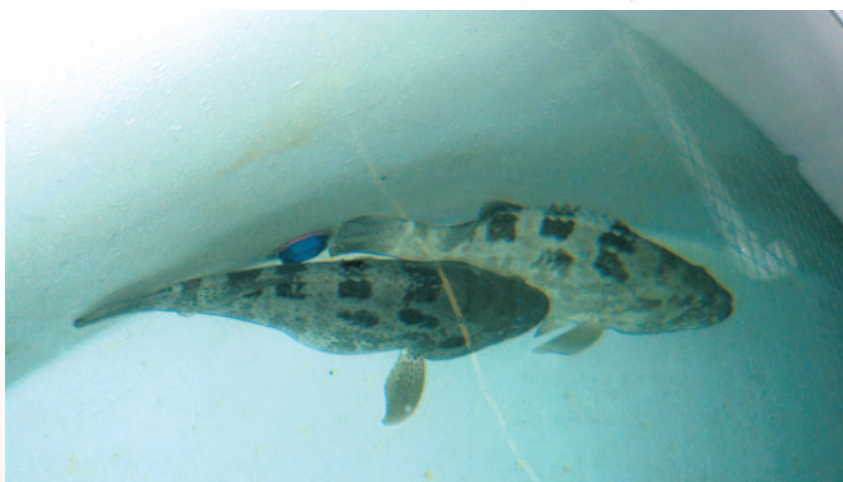
threadfin breams were landed by each trawler.

(Veraval Regional Centre)

Induced spawning experiment of greasy grouper at Visakhapatnam Regional Centre

A spawning experiment of greasy grouper, *Epinephelus tauvina* was

conducted in the mariculture hatchery of Visakhapatnam Regional Centre, CMFRI.



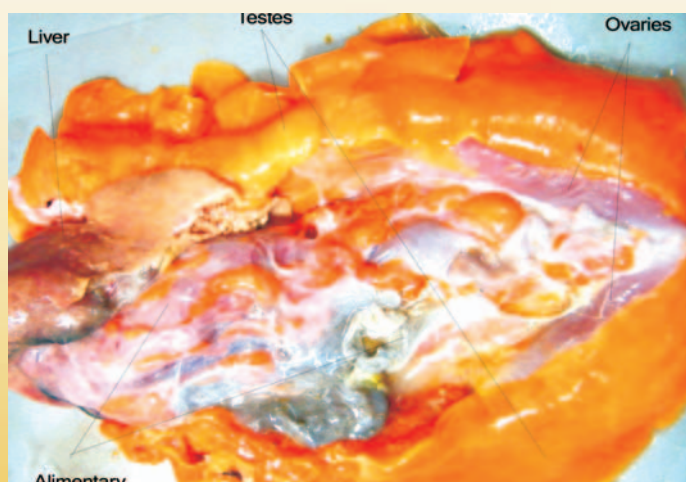
Experimental pair for induced spawning experiment

A matured female of 4.0 kg with ova dia 400 – 450 μ from the open sea floating cage off Visakhapatnam and sex reversed male of 4.5 kg from the hatchery were used for the experiment. The experimental pair of grouper was given split doses of HCG and LHRH injection for 5 consecutive days starting from 19 NOV 2010. On 24 NOV 2010 morning (24 hrs after LHRH injection) spawning was achieved with floating fertilized eggs. The egg development continued up to 13th stage (early gastrula). Further the egg development was ceased due to some unfavourable water quality parameters. Precautions are being taken for successful repetition of spawning experiments.

Hermaphroditism found in *Lutjanus rivulatus*

A large specimen of *Lutjanus rivulatus* (Cuvier, 1828) was found to have an ovo-testes. The fish having 590mm length and weighing 3.9 kg was landed by hand liners in Vanakbara, Diu. Sporadic landing of *L. rivulatus* is observed along Saurashtra coast by small scale fishermen. Testis was in the flabby matured stage and ovary seemed to be non functional.

Ovotestes of *Lutjanus rivulatus* ►



National training on marine ornamental fish culture at Mandapam Regional Centre

The NFDB sponsored training programme on Marine Ornamental fish culture was organised in Mandapam Regional Centre of CMFRI during 6-15th December 2010. The programme was inaugurated by Shri.S. Kannabiran, Assistant General Manager, NABARD, Ramanathapuram. Dr. K. Eswaran, Scientist-In-Charge, Marine Algal Research Station of CSMCRI, Mandapam and Smt. R. Srikrupa, In-Charge, MSSRF, Thangachimadam, offered felicitation. Twenty participants from Fisheries Department and other Fisheries developmental agencies across the maritime states namely, West Bengal, Orissa, Maharashtra, Kerala, Tamil Nadu and Lakshadweep, participated in the training programme. A course manual was also released during the function.



Participants of the training programme

The valedictory function was conducted on 15th December 2010 and Dr. A. K. Kumaraguru, Senior Professor

and Director, Centre for Marine and Coastal Studies, Madurai Kamaraj University distributed the certificates.



Inaugural address by Shri S. Kannabiran, AGM, NABARD, Ramanathapuram



Dr. A. K. Kumaraguru, Senior Professor and Director, CMCS distributes certificate to the participant

National training on sea cage farming of seabass and lobsters at Vizhinjam Research Centre

In collaboration with National Fisheries Development Board (NFDB) Hyderabad, CMFRI has organized 7 day training programme from 27th October to 2nd November 2010 on "sea cage farming of seabass and lobsters" at Vizhinjam Research Centre of CMFRI, Thiruvananthapuram. The training started on 27th October, 2010. The training was inaugurated by Shri. P. Kesavan Nair, Managing Director, MATSYAFED. The Scientist-In-Charge, Dr. Rani Mary George presided over the function. The manual prepared for the training was released by the Guest of Honour, Shri. Y. Prakas Rao, Executive Director (Tech.) of NFDB, Hyderabad.



Inauguration of the training programme by Shri. P. Kesavan Nair, Managing Director, MATSYAFED.



HDPE cage completed by the trainees launched at Vizhinjam Bay

Dr. K. Sobhana Kumar, DGM, MATSYAFED and other dignitaries from Central and State Departments and few

local fishermen also attended the inaugural function.

A total 24 trainees from different

states of India had participated in the training. In addition to the experts from Vizhinjam Research Centre of CMFRI, 12 experts were invited to take various theory and practical classes. Experts from different institutes including CIBA and CIFT delivered lectures and practical sessions for the training programme. Several field visits including demonstration of launching of a smaller cage at Vizhinjam and introduction to the cage culture at Kanyakumari area were conducted. The valedictory function was held on 2nd November 2010. Dr. G. Gopakumar, Head Mariculture and SIC, Mandapam Regional Centre of CMFRI, distributed the certificates.



Participants with experts

Training Programmes

- One day training programme for ATMA farmers organised by KVK for 15 participants was held in ATIC on 8th October, 2010.
- 15 days training programme on Aquaculture for Njarakkal VHSc students during the period from 10th to 29th November was held in ATIC.
- 15 days training programme on Aquaculture for Arthungal VHSc students on during the period from 3rd to 20th December was held in ATIC.
- During the reporting period the KVK has conducted 14 training programmes under the diversified fields of agriculture for practicing farmers and women in which a total of 314 members got trained.

World Bank Mission visited Mumbai RC

Events



World Bank Mission visited Mumbai RC of CMFRI and cluster areas of the NAIP sub-project (Component III) "Strategies to enhance adaptive capacities in vulnerable regions to climate change" to assess the project activities.

World Bank Mission team visiting cluster areas of the project at Mumbai

Village-based mangrove nurseries takes off at Moothakunnam, Kerala : People's initiative towards conservation



Mangrove nursery developed in Moothakunnam village

In an attempt to develop mangrove habitat in Kerala, the Central Marine Fisheries Research Institute, Kochi initiated a Community based Ecosystem restoration programme in June 2010. Three species of mangroves were selected for the restoration programme and for nursery development viz. *Rhizophora mucronata*, *Bruguiera gymnorrhiza* and *Bruguiera cylindrica*.

During a function held in the village in connection with the World Environment Day, propagules were distributed to different groups of school children, women self help groups and other village youth who were interested to be partners in mangrove restoration. The propagules were planted by the members of women self help groups and these were distributed to different categories of volunteers and small nurseries were developed by each group. Instructions were given to these groups for nursery care of seedlings. The

nursery reared seedlings were collected back from the respective groups by CMFRI for further planting and restoration based experiments.

Rhizophora mucronata was the main species selected for the restoration programme with an average of 78.8% survival (N=2013) and the survival percentages ranged between 78.1 to 100% in the different groups. *Bruguiera gymnorrhiza* was the second dominant species (N=866) and the average survival was 77.1 %. The survival ranged between 27.8 and 82.3% in different groups. *Bruguiera cylindrica* (N=480) had comparatively high survival rate, (average= 87.7%). Among the different groups, the survival percentage was the highest (80.9%) in the nursery of village youth who took care of a total of 2948 seedlings followed by Group E (w SNMHS, Moothakunnam) which recorded a survival of 72.8%.

The average shoot length of *R. mucronata* (Valiya kandal) reared by the different groups ranged between 33.9 and 49.25 cm with a minimum of 30 cm and a maximum of 57.5 cm. The growth of the *B. gymnorrhiza* was comparatively lower than *R. mucronata* but faster than *B. cylindrica*. The average shoot length of *B. gymnorrhiza* ranged between 18.3 and 28.62 cm with a minimum of 15.5 cm maximum of 37.5 cm. The growth of *B. cylindrica* was slow compared to the other two species. This species had grown to shoot length of this species ranged between 13.5 to 17.1 cm.

The seedlings will be planted in selected sites of the village with people's participation. This programme of Habitat Restoration initiated by CMFRI is the first of its kind in this coastal village.

(Fisheries Environment and Management Division)

Joint meeting of State Fisheries Officers and Scientists of Tuticorin RC

A Joint meeting of Scientists of Tuticorin Research Centre of CMFRI and Officers of State Fisheries Department, Govt. of Tamilnadu was held on 15.11.2010 at the premises of Tuticorin Research Centre. Three Assistant Directors of Fisheries and Inspectors along with the Scientists and Technical Officers of the Centre participated in the meeting, which was convened to identify the research needs of the stakeholders of the region. Various issues on fisheries especially the trawl ban, pollution problems, juvenile fishing and shellfish resources monitoring were discussed in detail. Dr. M.S.Madan, Scientist in charge



Joint meeting of Scientists with State Fisheries Officials

welcomed and initiated the deliberations. The meeting concluded with a formal vote of thanks by Dr. I. Jagadis, Senior Scientist.

Parliamentary Committee inspection



Shri. Keshubhai V. Patel, Hon'ble MP (Loksabha) and Dr. Pradeep Kumar Sharma viewing the exhibits of our Institute

The Second Sub Committee of Committee of Parliament Official Language inspected the Official Language activities of Mumbai Research Centre of CMFRI on 27th October, 2010. The

inspection meeting was chaired by Dr. Prasanna Kumar Patsani, MP (Loksabha). Shri Keshubhai V. Patel, MP (Loksabha), Dr. (Smt.) Bocha Jhansi Lakshmi, MP (Loksabha) and Shri Brijesh Pathak, MP

(Rajyasabha); Dr. Pradeep Kumar Sharma, Sr. Research Officer, Committee Secretariate were present. From the Office side Dr. Anil Agarwal, Principal Scientist (Fy.) and Smt. Kumudini Nautiyal, Assistant Director (OL), ICAR; Dr. G. Syda Rao, Director, Smt. Roja Sethumadhavan, Sr. Administrative Officer and Smt. Sheela P.J., Assistant Director (OL), CMFRI, Cochin; Dr. Vinay Deshmukh, Scientist in Charge and Dr. Veerendra Veer Singh, Principal Scientist, Mumbai Research Centre attended the meeting.

The progress made in the implementation of Official Language Policy based on the questionnaire submitted was discussed in the inspection meeting. Committee appreciated the Official Language implementation activities of our Institute.

Rajbhasha Rolling Trophy

CMFRI won the Rajbhasha Rolling Trophy of Cochin Town Official Language Implementation Committee (1st Position) for the best implementation of Official Language during the year 2009-10. Smt. Sheela P.J., Assistant Director (OL) received the Trophy from the Chief Commissioner of Income Tax, Cochin in the function organized on 30.11.2010.



Smt. Sheela P. J. receiving the trophy

Exhibition



CMFRI Stall organised by Vizhinjam Research Centre at National Food & Trade Fair

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Kochi - 682 018

Dr. G. Syda Rao, Director

Director attended the Inspection of Parliamentary Committee at Mumbai on 26.10.2010.

Dr. E. V. Radhakrishnan, Head, CFD, Delivered lecture in the short term training programme on seacage farming at Vizhinjam on 29.10.2010.

Dr. (Mrs.) V. Kripa, Head, FEMD, attended the second Regional Training Programme on Project Cycle Management (RTC-2) "Applying Project Cycles Tools to Support Integrated Coastal Management" organized by MoEF in collaboration with IUCN from 3.10.2010 to 10.10.2010 at Chennai –

- Participated in the First meeting of Inter Institutional Expert Committee (IIEC) for finalizing specifications for equipments/ facilities for the institute under the NICRA project at CRIDA, Hyderabad on 18.09.2010

Dr. P.U. Zacharia, Head, Demersal Fisheries Division attended the Fisheries Assessment Working Group Meeting at Chennai on 25th November 2010 in connection with Bay of Bengal Large Marine Ecosystem (BOBLME) Project.

Dr. E. Vivekanandan, Principal Scientist

Deputation abroad : Participated and presented a paper on Fishing Capacity of Tunas in the Working Party meeting of Indian Ocean Tuna commission held at Seychelles on October 25 & 26, 2010. About 20 tuna fishing countries bordering the Indian Ocean participated in the meeting.

- Delivered a special talk on Climate Change in the Symposium on "Recent Researches in Marine Biology" organized jointly by Marine Biological Association of India and Andhra University at Visakhapatnam on 9.10.2010.
- Participated and delivered special talk on Fisheries Diversity in the Brainstorming Session of Census of Marine Life organized by MoES at Kochi on 1.12.2010.

Dr. V. D. Deshmukh, Scientist-in-Charge, Mumbai RC attended Fishermen's meet organized by Centre for Social Action (CSA) on "Climate change and its likely effect on fishing and possible interventions for alternative livelihood" on

30th November, 2010 at Saint Pias College, Goregaon, Mumbai.

Dr. Gulshad Mohammed, Scientist-in-Charge attended XIIth meeting of ICAR Regional Meeting No. VI at Anand Agricultural University, Anand, Gujarat on 21st to 22nd October, 2010.

Dr. G. Mohanraj, SIC, Chennai RC, attended the meeting on 25.10.10 at BOBP, Chennai and discussed about deployment of FAD in Indian waters with Director, Dr. Y.S. Yadava, IGO-BOBP, Dr. Vijayakumaran, DG, FSI, Dr. Kathirolu and Dr. M. Vijayakumaran, NIOT, Chennai.

- Attended the FITT Management Committee meeting on 26.11.10 at the Tamil Nadu Govt. Secretariat, Chennai.

Dr. R. Narayanakumar, Senior Scientist, SEETD delivered a lecture in Economics of cage culture of seabass in the training programme at Vizhinjam on 2-11-2010.

Shri K. P. Said Koya, Senior Scientist, lead a team of investigators onboard three converted commercial trawlers for squid jigging and long lining (MV *Titanic*, MV *Ohm* and MV *Cosmos*) in the Lakshadweep Sea from 16th to 27th October 2010.

Dr. P. S. Asha, Senior Scientist, attended and delivered a lecture on "Biodiversity of Echinoderms with special reference to sea cucumber resources of India" at the National Conference on Marine Biodiversity" held at Department of Marine Science School of Marine Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu on 17th September 2010.

Dr. Dineshbabu, A.P., SIC, Mangalore RC, attended training programme on 'IT based Decision Support Systems for Digital Content Development' at NAARM, Hyderabad from 5-15th October 2010.

Dr. Prathibha Rohit, Senior Scientist attended the Bay of Bengal Large Marine Ecosystem (BOBLME) Programme-Fisheries Assessment Working Group Meeting on 25th and 26th November 2010 at Chennai and presented the status of mackerel fishery of India with special reference to the Bay of Bengal Region.

Shri. R. Saravanan, Scientist, attended the National Seminar on Biodiversity Conservation and Management of Aquatic Resources on 9-10 December 2010 at Nagercoil and presented a paper entitled 'Taxonomic analysis of marine finfish diversity of Karnataka'.

Dr. Swathilekshmi P., Scientist, attended National seminar on Extension Management Reforms- Initiatives and Impacts on 11-12 December 2010, at Coimbatore, organized by Tamil Nadu Agricultural University.

Mr. Sreenath K. R., Scientist, Marine Biodiversity Division participated in National conference on Marine Bioresource, Biotechnology and Biodiversity during 28-29th November, 2010 conducted by Marine Bio Resource Centre (MBRC), Jamnagar, Gujarat.

Mr. Suresh Kumar Mojjada, Technical Officer (T-6), Mariculture Division, attended training programme under NAIP component – I strengthening statistical computing for NARS, Researchers Training Programme on Statistical Analysis Systems (SAS) from 15th – 20th November, 2010 at CIFE, Mumbai.

Dr. R. Jeyabaskaran, Senior Scientist, Participated in the review meeting on Southern Ocean Expedition 2011 at NCAOR, Goa on 16th September 2010.

Dr. Shyam S. Salim, Senior Scientist, attended the International Conference on Progress and protection through geographical indications organized by UNCTAD, Govt. of India and DFID at New Delhi held during 16th to 17th, November 2010.

KVK News

Adaptability of Brush cutter for harvesting paddy tested

Testing of adaptability of Brush cutter for harvesting paddy was done in the field of Shri. Sudharsanan of Karumalloor village on 23-09-2010. Dr. C. Ramachandran, Programme coordinator presided the function participated by Shri. V.K. Meena, Shri. B. Suresh Kumar and Shri. F. Pushparaj Anjelo.

Maize cultivated successfully through On Farm Testing



Dr. G. Syda Rao, Director, CMFRI, harvesting maize. Also seen Dr. Ramachandran and Dr. R Sathiadhas.

For the first time in Kerala, maize crop was successfully cultivated through an On Farm Testing conducted by the KVK. The variety PAC 712 brought from

Rajasthan Agricultural University gave a potential yield of 40 quintals /ha. With a crop window of 70 days maize and high photosynthetic efficiency has very good

potential in Kerala. The variety was also replicated in farmers' fields in Mookkannore and Perumbavoor. Though the suitability of the crop to the agro climatic situation of the district has been proved it is recommended only for homestead cultivation.

The harvest of Maize at the demonstration unit of KVK at Thevara, was done on 14-10-2010. Dr. G. Syda Rao, Director, CMFRI, presided over the function and harvested the cobs. The harvest mela organized by Dr. C. Ramachandran, programme coordinator of this KVK attracted very good media attention. After reading the news, about 160 farmers in the district have registered their interest in experimental cultivation of maize. The Kendra is arranging seeds for these farmers.

House panel sitting of the Assembly Committee



Assembly committee consisting Hon. MLAs Shri. K. V. Kunhiraman, Shri C. P. Muhammed, and Shri George M. Thomas reviewing the KVK activities

The sitting of the Legislative Assembly panel on Krishi Vigyan Kendra's headed by Shri. K. V. Kunhiraman, MLA, and consisted of Shri. C. P. Muhammad,

MLA and Shri. George M. Thomas, MLA was held at the Central Marine Fisheries Institute, Kochi on 29-11-2010. Dr. G. Syda Rao, Director, CMFRI presided

over the stakeholder meeting in which farmers, officials from the departments of agriculture, fisheries and animal husbandry, in addition to Dr Sreekumar, Prof and Head Vytilla research station and Mrs Ashadevi Varma Principal agricultural officer Ernakulam participated. Dr. C. Ramachandran, Programme coordinator (in charge), KVK, made a presentation on the activities and focus area of the Kendra. The MLAs made a visit to the KVK facilities at Njarakkal. The committee was appraised about the major constraints (like lack of suitable farm land, inadequate access to Njarakkal, and inadequate operational funds) faced by the KVK.

Vocational training programmes

Fifteen days 'On Job Training' on aquaculture for the Vocational Higher Secondary School students of Narakkal VHSE was conducted at the ATIC of CMFRI, from 10-11-2010 to 30-11-2010 by the Krishi Vigyan Kendra. 28 students and 3 faculties attended the

training programme.

A similar programme for 7 days from 01-12-2010 to 08-12-2010 on value added products of fish was conducted at the KVK, Narakkal. A total of 51 students and 3 staff of VHSE, Narakkal were benefitted from the programme.

Farmers on exposure visit to KVK

A group of 20 farmers accompanied by 2 officers of Tamilnadu Agriculture department under the ATMA programme visited the KVK on 11-11-2010. A training programme on High Density planting of Banana was conducted for them.

19 farmers and 2 extension personnel of ATMA, Kanyakumari visited the KVK

on an Exposure visit, in which they got oriented about the activities carried out by this Kendra.

50 farmers accompanied by the Asst. Dir. Agriculture of Valakom Block under the ATMA programme visited the Kendra on 01-12-2010 for whom a one day training programme on Mushroom Cultivation was conducted.

On farm testing of new Pokkali paddy variety

Harvesting of New high yielding variety of pokkali paddy var. VTL-8, was done on 10-10-2010 at Kadamakudy, as a part of OFT of KVK. Dr. C. Ramachandran, Programme coordinator (in Charge), of KVK initiated the harvest by cutting a bunch of grains. Dr. Sreekumar, Prof & Head, RARS, Vytilla, Shri. V.K. Meena, Shri. B. Suresh Kumar and Shri. F. Pushparaj Anjelo were also present.

PROMOTIONS

Names		From	Promoted To	Center	w.e.f
1.	Shri Prabhakar Sankar Salvi	T-1 (FA)	T-2 (JTA)	Mumbai RC	09.03.2009
2.	Shri D. Prakasan	T-2 (JTA)	T-3 (TA)	Hqrs. Kochi	23.03.2010
3.	Shri J. Padmanathan	T-2 (JTA)	T-3 (TA)	Tuticorin RC	31.12.2009
4.	Shri Chudasama Ramji Raja	T-2 (JTA)	T-3 (TA)	Veraval RC	04.01.2010
5.	Shri Paul Sigamony	T-3 (TA)	T-4 (STA)	Tuticorin RC	01.01.2010
6.	Shri Kishore Raghunath Mainkar	T-3 (TA)	T-4 (STA)	Mumbai RC	01.01.2010
7.	Shri K.G. Kalbate	T-3 (TA)	T-4 (STA)	Mumbai RC	01.01.2010
8.	Shri Bashir Ahmed Adam Shilodar	T-3 (TA)	T-4 (STA)	Mumbai RC	01.01.2010
9.	Shri D.D. Sawant	T-3 (TA)	T-4 (STA)	Mumbai RC	01.01.2010
10.	Shri A. Gandhi	T-3 (TA)	T-4 (STA)	Mandapam Camp	01.01.2010
11.	Shri A.Y. Jacob	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	01.01.2010
12.	Smt. Sindhu K. Augustine	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	30.12.2009
13.	Shri Thomas Kuruvila	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	01.01.2010
14.	Shri K.C. Pradeep Kumar	T-3 (TA)	T-4 (STA)	Calicut RC	01.01.2010
15.	Shri S. Sekhar V. Rayer	T-3 (TA)	T-4 (STA)	Tuticorin RC	03.10.2009
16.	Shri Sujit S.K.	T-3 (TA)	T-4 (STA)	Mumbai RC	31.10.2009
17.	Shri K.N. Pushkaran	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	01.01.2010
18.	Shri C. Unnikrishnan	T-3 (TA)	T-4 (STA)	Vizhinjam RC	01.01.2010
19.	Shri V.K. Suresh	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	01.01.2010
20.	Shri R. Athipandian	T-3 (TA)	T-4 (STA)	Tuticorin RC	01.01.2008
21.	Shri H.S. Mahadevaswamy	T-3 (TA)	T-4 (STA)	Mangalore RC	01.01.2008
22.	Shri K.G. Baby	T-3 (TA)	T-4 (STA)	Hqrs. Kochi	01.01.2010
23.	Shri Vasam Shetty Abbulu	T-3 (TA)	T-4 (STA)	Visakhapatnam RC	01.03.2010
24.	Shri K. Jayabalan	T-3 (TA)	T-4 (STA)	Tuticorin RC	01.01.2010
25.	Shri V. Sethuraman	T-3 (TA)	T-4 (STA)	Mandapam Camp	01.01.2010
26.	Shri P. Venkitaramana	T-3 (TA)	T-4 (STA)	Visakhapatnam RC	01.01.2010
27.	Shri N. Burayya	T-3 (TA)	T-4 (STA)	Visakhapatnam RC	01.01.2010
28.	Shri R. Appayya Naik	T-3 (TA)	T-4 (STA)	Mangalore RC	01.01.2010
29.	Shri P. Achayya	T-3 (TA)	T-4 (STA)	Visakhapatnam RC	01.01.2010
30.	Shri Swapan Kumar Kar	T-3 (TA)	T-4 (STA)	Visakhapatnam RC	06.03.2010
31.	Shri R. Ponniah	T-3 (Electrician)	T-4 (Electrician)	Madras RC	01.01.2010
32.	Shri I. Mendonza Xavier	T-4 (Sr. Draughtsman)	T-5 (T.O.)	Karwar RC	22.05.2008
33.	Shri A. Padmanabha	T-4 (Sr. Electrician)	T-5 (T.O.) Electrician	Kochi	20.04.2009
34.	Shri K.C. Pandurangachar,	T-4 (STA)	T-5 (T.O.)	Karwar RC	01.01.2009
35.	Shri K.K. Suresh	T-4 (STA)	T-5 (TO)	Vizhinjam RC	01.02.2009
36.	Shri Sijo Paul	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.08.2008
37.	Smt. Jenni B	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	06.08.2008
38.	Smt. K.P. Salini	T-4 (STA)	T-5 (T.O.)	Hqrs. Kochi	01.01.2009
39.	Shri Jose Kingsly	T-4 (STA)	T-5 (TO)	Vizhinjam RC	06.01.2009
40.	Shri K.M. Venugopalan	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	01.01.2010
41.	Smt. P.K. Seetha	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	01.07.2009
42.	Shri A. Ramakrishnan	T-4 (STA)	T-5 (TO)	Mandapam Camp	03.02.2010
43.	Shri C.K. Dinesh	T-4 (STA)	T-5 (TO)	Mandapam Camp	03.02.2010
44.	Shri B.V. Makadia	T-4 (STA)	T-5 (TO)	Veraval RC	03.02.2010
45.	Shri Y. Muniyappa	T-4 (STA)	T-5 (TO)	Mangalore RC	03.02.2010
46.	Shri J. Bhuvaneswara Verma	T-4 (STA)	T-5 (T.O.)	Visakhapatnam RC	03.02.2010
47.	Shri C.J. Josekutty	T-4 (STA)	T-5 (TO)	Mumbai RC	03.02.2010
48.	Shri V.J. Thomas	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
49.	Shri A. Udayakumar	T-4 (STA)	T-5 (TO)	Vizhinjam RC	03.02.2010
50.	Shri K.K. Surendran	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
51.	Shri N. Chennappa Gowda	T-4 (STA)	T-5 (TO)	Mangalore RC	03.02.2010
52.	Shri J.D. Sarang	T-4 (STA)	T-5 (TO)	Mumbai RC	03.02.2010
53.	Shri M.N. Kesavan Elayathu	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
54.	Smt. K.V. Rema	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	01.01.2009
55.	Shri M. Samuel Sumithridu	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
56.	Shri N. Jesuraj	T-4 (Skin Diver)	T-5 (TO) Skin Diver	Tuticorin RC	03.02.2010
57.	Shri V.G. Surendranathan	T-4 (STA)	T-5 (TO)	Calicut RC	03.02.2010
58.	Shri M.P. Sivadasan	T-4 (STA)	T-5 (TO)	Calicut RC	03.02.2010
59.	Shri K.T. Thomas	T-4 (STA)	T-5 (TO)	Vizhinjam RC	03.02.2010
60.	Shri P. Muthukrishnan	T-4 (Skin Diver)	T-5 (TO) Skin Diver	Visakhapatnam RC	03.02.2010
61.	Shri M. Prasada Rao	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
62.	Shri C.S. Sasidharan	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
63.	Smt. P.T. Mani	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
64.	Smt. T.A. Omana	T-4 (STA)	T-5 (TO)	Vizhinjam RC	03.02.2010
65.	Shri B.B. Chavan	T-4 (STA)	T-5 (TO)	Mumbai RC	03.02.2010
66.	Shri P.P. Pavithran	T-4 (STA)	T-5 (TO)	Calicut RC	03.02.2010
67.	Smt. S. Gomathy	T-4 (STA)	T-5 (TO)	Madras RC	23.09.2008
68.	Shri Narayan G. Vaidya	T-4 (STA)	T-5 (TO)	Karwar RC	01.01.2010
69.	Shri N. Rudhramurthy	T-4 (STA)	T-5 (TO)	Madras RC	09.09.2009
70.	Shri V.S. Gopal	T-4 (STA)	T-5 (TO)	Madras RC	03.02.2010

71. Shri R. Somu	T-4 (STA)	T-5 (TO)	Madras RC	03.02.2010
72. Shri T. Dhandapani	T-4 (STA)	T-5 (TO)	Madras RC	03.02.2010
73. Shri N. Vaithinathan	T-4 (STA)	T-5 (TO)	Madras RC	03.02.2010
74. Shri Baban N. Katkar	T-4 (STA)	T-5 (TO)	Mumbai RC	03.02.2010
75. Shri A. Prosper	T-4 (STA)	T-5 (TO)	Tuticorin RC	03.02.2010
76. Shri K. Chandran	T-4 (STA)	T-5 (TO)	Calicut RC	03.02.2010
77. Shri M. Chellappa	T-4 (STA)	T-5 (TO)	Tuticorin RC	03.02.2010
78. Smt. M.R. Beena	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
79. Smt. Lata L. Khambadkar	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
80. Shri K. Anandan	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
81. Shri M.B. Seynudeen	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
82. Shri K.P. George	T-4 (STA)	T-5 (TO)	Hqrs. Kochi	03.02.2010
83. Shri Ganesh Bhatkal	T-4 (STA)	T-5 (TO)	Mangalore RC	01.01.2009
84. Shri M. Chandrasekhar	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
85. Shri V. Achutha Rao	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
86. Shri Pulin Behari Dey	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
87. Shri Sukhdev Bar	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
88. Shri C.H. Ellithayya	T-4 (STA)	T-5 (TO)	Visakhapatnam RC	03.02.2010
89. Shri P. Mohamed Abdul Muheedu	T-4 (Deckhand)	T-5 (TO-Deckhand)	Mandapam RC	03.02.2010
90. Shri D. Anandan	T-4 (Deckhand)	T-5 (TO-Deckhand)	Mandapam RC	03.02.2010
91. Shri R. Sekhar	T-4 (Deckhand)	T-5 (TO-Deckhand)	Tuticorin RC	03.02.2010
92. Shri S. Enasteen	T-4 (Deckhand)	T-5 (TO-Deckhand)	Tuticorin RC	03.02.2010
93. Shri V.P. Benziger	T-4 (Deckhand)	T-5 (TO-Deckhand)	Vizhinjam RC	03.02.2010
94. Shri P. Hillalry	T-4 (Deckhand)	T-5 (TO-Deckhand)	Vizhinjam RC	03.02.2010
95. Shri C. Manibal	T-4 (Deckhand)	T-5 (TO-Deckhand)	Madras RC	03.02.2010
96. Shri S. Ganesan	T-4 (Deckhand)	T-5 (TO-Deckhand)	Madras RC	03.02.2010
97. Shri P.M. Hariharan	T-4 (Deckhand)	T-5 (TO-Deckhand)	Hqrs. Kochi	03.02.2010
98. Shri Sailada Satya Rao	T-5 (TO)	T-6 (TO)	Visakhapatnam RC	01.01.2010
99. Shri S. Subramani	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
100. Shri M. Manivasagam	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
101. Shri S. Chandrasekhar	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
102. Shri P. Thirumilu	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
103. Shri M. Manickaraja	T-5 (TO)	T-6 (TO)		01.01.2010
104. Shri M.R. Arputharaj	T-5 (TO)	T-6 (TO)	Mandapam Camp	01.01.2010
105. Shri G. Arumugham	T-5 (TO)	T-6 (TO)	Tuticorin RC	01.01.2010
106. Shri S. Rajapackiam	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
107. Shri S. Mohan	T-5 (TO)	T-6 (TO)	Madras RC	01.01.2010
108. Shri A. Kumar	T-5 (TO)	T-6 (TO)	Mandapam Camp	01.01.2010
109. Shri Anil Kumar P.S.	T-5 (TO)	T-6 (TO)	Hqrs. Kochi	01.01.2010
110. Shri G. Subramania Bhat	T-5 (TO)	T-6 (TO)	Mangalore RC	01.01.2010
111. Smt. P. Geetha	T-5 (TO-Library)	T-6 (TO-Library)	Hqrs., Kochi	01.02.2009
112. Dr. V. Mohan	T-5 (TO-Library)	T-6 (TO-Library)	Hqrs., Kochi	02.03.2010
113. Shri Suryanarayana Murthi	Assistant	AAO	Mandapam RC	04.10.2010
114. Shri M.R. Wadadekar	Assistant	AAO	Veraval RC	26.11.2010
115. Shri Rishikesh Aandi	UDC	Assistant	Madras RC	20.09.2010
116. Shri K. Baburajan	UDC	Assistant	Hqrs., Kochi	16.11.2010

ASSUMPTION OF CHARGE

Dr. Sunil Kumar Mohammed, PS assumed the charges of Head, MFD w.e.f. 11.10.2010 (FN)

Dr. P. U. Zacharia, Senior Scientist assumed the charges of Head, DFD w.e.f. 11.10.2010 (AN)

TRANSFERS

Name	Designation	From	To
Dr. R. Sathiadhas	Principal Scientist	Hqrs., Kochi	Vizhinjam RC
Dr. R. Geetha	Scientist	Hqrs., Kochi	Madras RC
Shri P Harshakumar	T-2 (Motor Driver)	Mandapam RC	Mangalore RC
Shri N.K. Mohanan	Assistant	Hqrs., Kochi	KVK, Narakkal
Shri B. Balasubramanian alias James	LDC	Vizhinjam RC	Mandapam RC

RETIREMENTS

Name	Designation	Center	w.e.f
Retirement on Superannuation			
Shri R. Athipandian	T-3 (Technical Assistant)	Tuticorin RC	31.10.2010
Shri P. Bhaskaran	T-5 (Deckhand)	Calicut RC	30.11.2010
Shri S. Balasubramanian	AAO	Madras RC	31.10.2010
Smt. Pennamma Joseph	Skilled Support Staff	Hqrs., Kochi	30.11.2010
Voluntary Retirement			
V. Kochunaryanan Nair	Skilled Support Staff	Vizhinjam RC	01.11.2010 (FN)

MEETINGS

4th meeting of the IXth IJSC held on 12.10.2010 at CMFRI, Kochi.

CMFRI to host 9th iff

19-23 December 2011
Chennai

www.9iff.org



About Indian Fisheries Forum

The Indian Fisheries Forum is held once in three years which gives opportunity to researchers in the field of fisheries and marine biology from India and abroad to present their research. In December 1987, the Branch successfully organized the First Indian Fisheries Forum in Mangalore. This was followed by the equally successful Second (May 1990, Mangalore), Third (October 1993, Pantnagar), Fourth (November 1996, Cochin), Fifth (January 2000, Bhubaneswar), Sixth (Mumbai, 2002), Seventh (Bangalore, 2005) and Eighth Indian Fisheries Forum (Calcutta, 2008). Central Marine Fisheries Research Institute, Kochi will host the 9th iff (9th Indian Fisheries Forum) at Chennai during 19-23 December 2011.

Meaning of the Logo

- The catamaran and fishermen depicts the traditional fishing methods practiced in coramandel coast.
- Fish represents the Cadalmin-marine fish depicting the trade mark of the hosting organization
- 9 represents the 9th Indian Fisheries Forum
- "iff" which stands for Indian Fisheries Forum is depicted as a fisherman and two oars of the boat.

Logo designed by Shri. K.M. David and
Shri. P. R. Abhilash of CMFRI

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.

