Marine Fisheries Sector of the country, beleaguered with the constraints of over capitalization, increased operational expenses and declined catch rates is at cross roads seeking a clear cut direction and guidance. The sector is undergoing rapid changes as the paradigm is shifting from coastal fisheries to sustaining the resource base. Sustainable development is a globally perpetuated goal for natural resource management and the basic principle that governs sustainable development of fisheries is that, it must be conducted in a way that does not lead to over-fishing or for those stocks which are over fished; the fishery must be conducted such that there is a high degree of probability that the stock(s) will recover and also fishing operations should be managed to minimize their impact on the structure, productivity, function and biological diversity of the ecosystem. The task of sustaining coastal fisheries is assuming challenging proposition with increasing dependent population on fishing, open access and climate change to name a few.

With regard to capture fisheries, although there is improvement in 2008, the scope for further expansion is extremely restricted. We need to stress on increasing bio-mass through mechanisms like FADs’ and open sea cage farming, strengthening our research on captive breeding of commercial species and formulate appropriate strategies for sustainable management. The open sea cage farming research initiated by us is a conspicuous venture towards this effort. The stability acquired in the designing and mooring the cages even in rough sea regions is a significant achievement compared to the beginning phase of very primitive and weak mooring. However, the interventions on Open Sea Cage farming attract lots of public attention as well as criticism due to its access and lack of real understanding of how the technologies are standardized. Depending on the region, we need immense support and encouragement from Government and Non-government agencies and coastal community. It would be imperative to pinpoint here that our investments in terms of mariculture research considering its potential is meagre and need several fold amplification in order to achieve our goals in food production and also ensuring food security. In tune with the global trend, we need to promote Capture Based Aquaculture (CBA) i.e., making use of the natural seed of high valued commercial fish for cage/pond farming as a measure in increasing the production as well as conserving the juveniles by ensuring better survival rates and also spacing them at least once in innate conditions for enhancing their natural stocks. The notable fishes under experimental stage include Seabass, Chanos, Mullets, Red snapper, Koth, Ghol and Lobsters. The Institute has also taken up product development activities (which are in final stages) like ornamental fish feed, Salio feed, green mussel extract, omega-3 fatty acid etc., which are of great demand in the domestic market and also import substitute. The products will be marketed under CMFRI brand “Cadalmin”, for which already Trademark approval has been obtained from Government.

Let’s imbibe this mission with great sense of integrity and commitment ......

(G. Syda Rao)
CMFRI launched 'Fish Watch'

The CMFRI has launched a new system of filed information dissemination on a near real time basis named as 'Fish Watch', a portal highlighting 50 years of time-series data on marine fish landings and effort. Dr. S.A.H Abidi, Chairman, Quinquennial Review Team of CMFRI inaugurated the 'Fish Watch' in the conclave of chairs of RACs & SRCs and Directors of fisheries research institutes held in CMFRI on 21st August 2009. It displays daily landings from five major groups of the 6 important mechanized landing centres of the country, available in the public domain. The compartmentally raised landing figures of major resources as well as the price commanded by them as a range are being regularly posted in the Institute’s website (www.cmfri.org.in). At present six major harbours of our country are being reported upon based on the information collected during the 24 hours of observation on selected days. The unique collation of first hand data based on the FAO approved sampling design accomplished by CMFRI has been the backbone of this scientific endeavour.

Electronic version of CMFRI publications released

The electronic version of all CMFRI publications published since 1954 has been released by Dr. S. Ayyappan, Deputy Director General (Fisheries) on 20th August 2009 in the conclave of chairs of RACs & SRCs and Directors of fisheries research institutes. This digitized version includes all CMFRI publications since 1954 consisting of Indian Journal of Fisheries, CMFRI Bulletins, Special publications, Annual Reports, Marine Fisheries Information Service, Project Reports and CMFRI books. More than one lakh pages have been scanned and kept in one DVD.
Conclave of the Chairs of QRTs & RACs and Directors of Fisheries Research Institutes held at CMFRI

A Meeting of all Chairs of RACs and QRTs along with the Directors of Institutes under the Fisheries Division was convened at the Central Marine Fisheries Research Institute (CMFRI), Kochi from 21-22 August 2009. While welcoming the gathering, Dr. G. Syda Rao, Director, CMFRI, announced the inauguration of Fish watch, a portal on marine fisheries, and release of the digital version of all CMFRI publications from 1954-2009. Dr. S.A.H. Abidi formally inaugurated ‘Fish watch’, a portal highlighting 50 years of time-series data on marine fish landings and effort. It displays daily landings from five major groups of the 6 important mechanized landing centres of the country, available in the public domain. Dr. Abidi appreciated CMFRI’s sampling design and data collection process, which are approved by the Food and Agriculture Organization of the United Nations. Dr. S. Ayyappan, Deputy Director General (Fy), ICAR, formally released the digital version of all CMFRI publication from 1954-2009.

Introductory remarks

In his introductory remarks, Dr. Ayyappan outlined the genesis of the meeting and thanked Dr. S. L. Mehta for originally mooting the idea of a meeting of all Directors of the Fisheries Institutes along with their respective chairs of RACs and QRT. He also presented the projections of fish demand and production in India. With the contribution of 2.97 million tonnes from the marine segment and 3.43 million tonnes from freshwater aquaculture, the current production is estimated at 7.60 Million tonnes. The projected production for 2011-12 and 2021-22 is estimated at 10.23 and 12.67 million tonnes respectively. Dr. Ayyappan flagged some major research issues to be addressed on a priority basis such as water scarcity, climate change, introduction of exotic fishes, disaster management and preparedness, and organic aquaculture. Biodiversity loss and depletion of fish stocks, incidence of diseases, aquatic pollution, lack of diversification in aquaculture practices, quality seed and relevant certification measures, etc.
fish feed, farm mechanization, cold chain, hygienic fish handling, and overseas market fluctuations, risk management, finance and insurance were the other priorities. He also announced the new initiatives of ICAR during the XI Plan such as Agriculturally important microbes, Agricultural biotechnology, New networks and outreach activities, upgrading NRCs as Directorates and formulation of NAIP projects. The capacity building efforts have been initiated on many priority areas. He stressed the need for deregulations in some of the areas, because more regulations will create more problems in many activities.

While initiating the discussions, Dr. P. V. Dehadrai complimented the efforts being made at the Fisheries Division for the overall developments of the sector and suggested more decentralization to streamline the activities. He further stressed the need for ensuring the follow-ups on the recommendations of QRTs and RACs. The action taken on QRT/RAC is generally restricted to one or two letters of recommendation. It is also important that the QRTs\RACs chalk out strategies and action plan on a time scale in developing the institutes in particular and the sector in general. He expressed the hope that under the dynamic leadership of Dr. Ayyappan, there would be better follow-up on QRT/RAC recommendations. He was of the view that some recommendations involving policy matters are inevitable for the betterment of the system.

Dr. S. Ayyappan informed the House that the Division will always ensure that all QRT/RAC recommendations are implemented in time, but due to financial and administrative reasons, it might not be possible to fully implement some of the recommendations involving creation of infrastructure. These are generally completed during the next Plan period. Dr. E.G. Silas pointed out the need for increased involvement of institutes on disaster management, as the country is passing through a bad drought. Higher investment in remote sensing and inter-organizational collaborations are important in facing these challenges. Preparedness and monitoring are important in this regard, he said. Dr. M.N. Kutty expressed the view that aquaculture production can be still made higher through better utilization of water bodies and species diversification.

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Presentation on CMFRI

Dr. G. Syda Rao, Director, CMFRI made a brief presentation on the Institute comprising the details on the XI plan outlay and utilization, issues and strategies on marine capture fisheries, sea farming, the socioeconomics, research highlights, the new initiatives, the recommendations of RACs and QRTs and status of their implementation. He stressed on the need for strengthening the manpower and research infrastructure. Dr. P.V. Dehadrai suggested the need for improved HRD in fisheries sector through networks and provided an example of the Maharashtra Gene Bank, a group working on biodiversity losses over the years. Initiating the discussion on the presentation, Dr. E.G. Silas congratulated CMFRI for launching ‘Fish Watch’, which he said will be very useful for policy makers and planners. He further emphasized the need for a sound research base in islands (Lakshadweep and Andaman and Nicobar), and mussel farming in coastal and estuarine systems. Considering the depletion of mussels stocks in Europe, Dr. Silas foresaw an opportunity for India to capture the European mussel markets through large-scale mussel culture in coastal areas, which could also promote poverty alleviation and employment generation. Based on his experience at the Rajiv Gandhi Centre for Aquaculture, Dr. Silas said that the ToT programmes should not lose track of the sustainability issues.

Dr. S. D. Tripathi was pleased with the CMFRI for its implementation of QRT recommendations and commercialization of ornamental fish technologies. Dr. S. Ayyappan suggested that the deployment of Scientist at CMFRI for capture fisheries and mariculture research shall be at a ratio of 65:35. Dr. G. Syda Rao informed the house that 90 per cent of the research budget allocation of the Institute is being spent on capture fisheries. Dr. Ayyappan said that in view of the shortage of experts in population dynamics at the Institute, services of retired hands could be hired as per existing norms. He informed the house about the recent efforts made at the ICAR to revise the qualifications of vessel staff to meet the requirements of the Institutes.

Following this, the Directors of the Fisheries Research Institutes made brief presentations on their institute’s progress with respect to vision 2020 document, XI Plan EFC and then research achievements.

Concluding remarks

The meeting ended with concluding remarks by Dr. J. S. Sethuraman, R. V. Nagarajan, Dr. A. S. Pradhan, and Dr. M. B. Prasad.
Dr. S. Ayyappan, DDG (Fy.), assured that all valuable suggestions given by the learned Chairs of RACs and QRTs have been taken note of and will be incorporated into the Institutes’ programmes, although there could be some time lag in some cases on account of getting necessary budgetary support and ironing out administrative/policy issues. He also expressed his gratitude to all the Chairs for their gesture of participating in this meeting and lending their good counsel to our Directors and Scientists. He thanked all Directors, ADGs, Scientists who took part in this important meeting and above all, the Director and staff of CMFRI for the excellent arrangements and painting efforts to make this meeting a grand success.

(Shyam.S.Salim and Najmudeen.T.M, Senior Scientists)

In connection with the Haritholsavam exhibition, a National Seminar on ‘Enhancing Agricultural Productivity and Profitability’ was organized in CMFRI on 29th and 30th August 2009 in the conference hall. Prof. K.V. Thomas, Union Minister of State for Agriculture, Consumer Affairs, Food & Public Distribution inaugurated the seminar by lighting the ceremonial lamp. Dr. Mangala Rai, Hon. Secretary, DARE & Director General, ICAR delivered the keynote address and Dr. K.R. Viswambharan, IAS, Hon’ble Vice Chancellor of Kerala Agricultural University welcomed the gathering.

As the seminar on a relevant theme was organized at the right time in the auspicious occasion of ONAM, the spectacular traditional festival of Kerala, the participating delegates were received in the traditional Kerala style with a ‘thalappoli’ and ‘panchavadyam’. The significance of Onam festival was explained to the participants along with a traditional Onasadya served as delicious lunch for the seminar. Director, CMFRI, Dr. G. Syda Rao expressed the vote of thanks and presented mementos to the guests of honour in the inaugural function.

(Shyam. S. Salim and Najmudeen. T. M, Senior Scientists)
The first session on Enhancing Productivity and Production of Quality Rice in Kerala was chaired by Dr. Mangala Rai, Secy. (DARE) & DG (ICAR) and Dr. A. K. Singh, Sr. Scientist, Genetics Division, IARI talked about Bio-fortified Rice and Dr. P.V. Balachandran, Assoc. Director of Research, KAU spoke on ‘Medicinal Rice’. The topic on Red Rice was covered by Dr. B.C. Viraktamath, Assoc. Director of Research, KAU spoke on ‘Medicinal Rice’. The second technical session was on ‘Improving Productivity and Profitability of Horticulture Crops’ chaired by Dr. H.P. Singh, DDG (Horticulture). Dr. George V. Thomas, Director, CPCRI presented about Coconut Based Farming System and Dr. V.A. Parthasarathy, Director, IISR talked about of Black Pepper and Other Spices for Increasing Income. Dr. M. Mustaffa, Director, NRC Meat.

The second day of the seminar on 30th August, 2009 commenced with the technical session on ‘Fisheries and Fishing Community’ was dealt with by Shri Xavier Thomas Kondody, Co-Convenor, CII-MSME Panel, Kochi.

The second technical session was on ‘Post-harvest Value Addition’ and Dr. A.G. Ponnaiah, Director, Vass, Director, CIFRI and the topic on ‘Coastal Inland Fisheries and Aquaculture’ was given by Dr. K.K. Thomas for the session continued with the talk on ‘Dairy Development’ presented by Dr. A.K. Srivastava, Director, NDRI and the talk on ‘Meat Processing and Value Addition’ presented by Dr. N. Kondaiah, Director, NRC Meat.

The technical session on ‘Enhancing Water Productivity, Fertilizer-use Efficiency and Diversified Product Development’ presented by Dr. H.P. Singh, DDG (Horticulture). Dr. George V. Thomas, Director, CPCRI presented about Coconut Based Farming System and Dr. V.A. Parthasarathy, Director, IISR talked about of Black Pepper and Other Spices for Increasing Income. Dr. M. Mustaffa, Director, NRC Meat.
Value-Added Product Development' was chaired by Dr. M.M. Pandey, DDG (Engg.). Dr. P.D. Sharma, ADG (NRM) talked on 'Fertilizer-use Efficiency' and Dr. Ashwani Kumar, Director, DWTC talked about 'Water Efficiency'. After lunch, Dr. Surendra Singh, PC, CIAE gave a talk on 'Energy-use Efficiency' and Dr. R.T. Patil, Director, CIPHET talked about 'Diversified Value–Added Product Development'.

The last technical session on 'Plant Protection Measures in Agri-Horticultural Crops' was chaired by Dr. T.P. Rajendran, ADG (PP) and first speaker was Dr. Anand Raj, PC, AICRP (Spices ) who spoke on 'Wilt and Wilt Management in Field and Horticultural Crops' followed by Dr. C.P.R. Nair, PS, CPCRI who talked about 'Sustainable Pest Management of Perennial Crops' and the last talk on 'Profitable Pest Management in Rice – Adat Experience' by Dr. R.J. Rabindra, Director, NBAII. In total, the entire 5 sessions of the national seminar organized in connection with the Haritholsavam exhibition, was an inevitable requisite of the present context as it focused on enhancing Agricultural Productivity and Profitability which ultimately brought out wide coverage in all sorts of media.

(Vipinkumar V.P., Senior Scientist)

Research Brief

Bumper Catches of Spinetail mobula, *Mobula japanica* at Cochin Fisheries Harbour

Heavy landings of spinetail mobula, *Mobula japanica* was observed at Cochin Fisheries Harbour, Kerala during the first week of August, 2009 as bycatch from Gillnet fisheries mainly targeting large pelagics off Cochin. It is a large devil ray (reaching 310cm disc width) belonging to the family Myliobatidae and occurring inshore, offshore and possibly oceanic environments as large schools. *Mobula japanica* is highly susceptible to gillnets and is very common by catch of the gillnet fisheries. *Mobula japanica* is assessed as near threatened globally, but vulnerable throughout Southeast Asia where catches
are increasing. Because of its large size, migratory behavior, extremely low fecundity and large size at maturity, this species is highly vulnerable to fishing pressure. However, since information on life history parameters is limited, more research is required to make more accurate assessment of the threats posed by targeted fisheries.

First record of the Garman’s lanternfish *Diaphus garmani* (Myctophiformes: Myctophidae) from Indian waters

The myctophid *Diaphus garmani* is recorded for the first time from Indian waters based on 3 specimens (66-74 mm standard length) collected from deep sea shrimp trawlers off Quilon, south west coast of India, between 80°-110°N and 74°-76°E. Fishes were captured in April 2009 by a commercial deep-sea shrimp trawler operated in the outer shelf of west coast of India. The specimens of *D. garmani* were deposited in the National Biodiversity Referral Museum, CMFRI, India under the Accession Number GB.27.1.5.25.

*Diaphus garmani* occurs in the Southeast Asian Seas and the waters off Japan south of 400°N and off Sri Lanka. The specimens reported here considerably extend the known distribution of this species to the west coast of India.

Barcoding of tunas

Gene sequencing of 5 species of tuna for genetic barcoding was carried out and deposited with the gene bank of National Centre for Biotechnology Information (NCBI). Web page: http://www.ncbi.nlm.nih.gov/taxonomy

Details of species and the Accession Numbers are:

1. Species: *Auxis rochei*
   ACCESSION GQ199626
2. Species: *Auxis thazard*
   ACCESSION GQ199627
3. Species: *Euthynnus affinis*
   ACCESSION GQ199628
4. Species: *Katsuwonus pelamis*
   ACCESSION GQ199629
5. Species: *Thunnus albacares*
   ACCESSION GQ199630

(Pelagic Fisheries Division)

Occurrence of the reef lobster *Enoplometopus occidentalis* (Randall, 1840) from the Kerala coast

Ten specimens of the reef lobster *Enoplometopus occidentalis* also known as the ‘Hawaiian reef lobster’ as it is growing in number in the Indian waters. This species is highly vulnerable to fishing pressure due to its large size and migratory behavior. It is also of concern due to its extremely low fecundity and large size at maturity. Since information on life history parameters is limited, more research is required to make more accurate assessment of the threats posed by targeted fisheries.

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Ten specimens of the reef lobster *Enoplometopus occidentalis* also known as the ‘Hawaiian reef lobster’ as it
was first recorded from Hawaii, was observed in the deep sea trawl landing at Kalamukku Fishing Harbour on 17/9/2009. The specimens were caught during the deep sea trawl operations off Ponnani from a depth of 324 m. The species earlier considered a Nephropid lobster under Nephropidae family is now assigned to the family Enoplometopidae. This is the first report of the occurrence of the species along the Indian coast.

(Crustacean & Pelagic Fisheries Division)

Harvest of spiny lobsters from marine cage at Pulicat

On 23.5.09, as a partial harvest, 20 kg of spiny lobster Panulirus homarus was made after a period of 2 months of rearing from the marine cage stationed off Vairavankuppam, Pulicat, in the presence of Dr. Rengarajan, and Dr. Thillai Govindan, Joint Directors of Fisheries, Tamil Nadu Fisheries Department. The harvested lobsters were handed over to the community for utilizing the sale proceeds for their developmental activities.

Breeding of the ornate spiny lobster, Panulirus ornatus, in captivity

Maturation and breeding of the ornate spiny lobster Panulirus ornatus in captivity without eye ablation or hormonal administration was achieved for the first time at Kovalam Field Laboratory, RC of CMFRI, Chennai. Juveniles of P. ornatus collected from the wild were raised in running water cement tank systems with reduced transmission of incident light, for about two years. The laboratory had earlier succeeded (2007 & 2008) in maturation and breeding of the species by resorting to the unilateral eye ablation intervention at the determined phases. However the present results have been achieved by management of sex ratio, feeding and improved habitat design.

A fresh post-molt female lobster weighing 1.117 kg, and measuring 115 mm carapace length successfully mated with a male specimen, slightly bigger in size, kept in the same tank. The female further released and fertilized eggs (approx. total weight of eggs was 70 gms). The brooding female was then transferred to a separate brooder tank and water quality maintained till the phyllosoma hatched on
the 25th day of incubation (when water temperature was 29-30°C). The diameter of the eggs 2 days prior to hatching was 596μ and total weight of the eggs was 64 gms. Hatching took place in a phased manner, with 90% of the eggs hatching out on the first day, and the remaining 10% on the following day. The total count of hatched out larvae was approximately 1,76,000; nearly 10% of the eggs were extruded as infected and discards during the incubation period. The external attachment of spermatophore in the female was completely used up in the first fertilization process.

The female was returned to the broodstock tank after egg hatching was completed, following which it mated again (observed during morning hours) with the same male partner and released fertilized eggs for a second time in the same inter-molt phase. Therefore, it is understood that the female prepared the gonads internally for the second breeding during the earlier phase of incubation itself. However the fecundity in the second breeding is reduced. The animal is incubating the second brood and is being maintained separately to observe the second release of the spawn in the same intermolt period.

Record of pink ghost shrimp *Callianassa kraussi* (Stebbing, 1900) from Chennai waters

Five live specimens of the pink ghost shrimp *Callianassa kraussi* (Stebbing, 1900) were collected from
the near shore waters off Kovalam, Chennai using shallow water bottom set gillnets used for crabs, during July 2009. This species falls under the Suborder Macrura Reptantia, Infraorder Thalassinidea, Superfamily Thalassinoidea and Family : Callianassidae.

**Unusual catch of shrimps by ring seine (surukku valai) in Cuddalore Fisheries Harbour**

For the first time, heavy landings of Indian white shrimp *Fenneropenaeus indicus* (Vella eral) were recorded on 6th Aug 2009 at Cuddalore Fisheries Harbour. The catch was caught by 15 ringseine units operated off Cuddalore. The total catch of prawns was 10 t. and was supported by *F. indicus* which contributed 90% to the total catch, followed by other fishes like *S. longiceps*, *O. ruber*, *Leiognathus* spp, *Nemipterus* spp & *Upenus* spp. The present observation of the bumper catch of Indian white shrimp (*F. indicus*) off Cuddalore coast during the pre-northeast monsoon period may be a part of moving shoals from north to south utilizing the prevailing water currents.

**Unusual landings of Bigeye snapper (*Lutjanus lutjanus*) at Chennai Fisheries Harbour**

On 23.07.2009, 1.2 tonnes of Bigeye snappers *Lutjanus lutjanus* landed by trawlers at Chennai Fisheries Harbour.

**Occurrence of deep sea fish *Acanthocepola indica* at Chennai coast**

An estimated catch of 0.5 tonnes *Acanthocepola indica* landed by multiday trawlers at Chennai fisheries harbour for the months of July and August 2009.
Unusual landings of Bullseye, *Priacanthus hamrur* (Forsskal, 1775) at Chennai Fisheries Harbour

A total catch of 8 tonnes and 3 tonnes of Bullseye *Priacanthus hamrur* landed by multiday thangal trawlers at Chennai Fisheries Harbour for the months of June and July 2009 respectively. Being in spoiled condition, it was used for fish meal.

Unusual heavy landings of Jellyfish, *Crambionella stuhlmanni* (Chun) at Pulicat landing centre, Chennai

An estimated catch of 387.5 tonnes of Jellyfish landed at Pulicat landing centre, near Chennai by scoopnet. In 2003, there was a heavy landing of jellyfish around Tamilnadu coast. After tsunami, the jellyfish fishery was exploited on 7th August 2009 from northern Chennai coast of Andhra Pradesh. The jellyfish catch started from 10.8.09 to 20.8.09 and the heavy catch on 18.8.09 was 60 tonnes landed at Pulicat landing centre. Nearly 11 fishing village people were involved in this fishery. The fishermen sold tentacles of the jellyfish for Rs.500/- per gunny bag (60 kg). Agents collect the tentacles and keep in separate processing plant for long preservation processes. The dried jellyfish is used for export purpose.

The first occurrence of Pompano dolphinfish, *Coryphaena equiselis* (Linnaeus, 1758) at Chennai coast in Bay of Bengal

On 5.9.09, the first occurrence of Pompano dolphinfish, *Coryphaena equiselis* was noticed at Chennai.
fisheries harbour by mechanized gillnet. The mechanized gillnet was operated from a depth of 30-50 meters at a distance of 30-40 km north Chennai towards Andhra. Normally, dolphinfish, *Coryphaena hippurus* was landed regularly in east coast of Chennai.

**Landings of Whelks from Kasimedu and Cuddalore fishing harbour**

*Babylonia spirata* commonly known as whelks, are landed as bycatch in shrimp trawlers in Kasimedu Fishing harbour and Cuddalore Fishing Harbour, Tamilnadu. They were traditionally exploited for use in shell-craft industry in Tamilnadu. However, in early 90s the whelk fishery gained significance because of the export demand for whelk meat in Japan, Singapore, Hong Kong, Thailand, UAE, Maldives and Sri Lanka for pharmaceutical industries.

((Chennai Research Centre of CMFRI))

**Heavy landings of Cephalopods by trawlers at Veraval & Porbander**

There was a heavy landing of cephalopods (*Sepia pharaonis & S. aculeata*) to the tune of > 2 t/trawler immediately after commencement of fishing in the first week of September following the monsoon ban.

((Veraval Regional Centre of CMFRI))
Unusual heavy landing of young seerfish at Visakhapatnam Fishing Harbour

Gillnets are specifically operated along Andhra coast to gill small as well as large pelagic finfishes and crustaceans. The mesh size used depends on the targeted fish/shellfish. Silknets are the gillnets with a mesh size of 2.5-3.0 cm and operated specifically to gill mackerel and carangids. Unusually huge quantities of young seerfish (Scomberomorus guttatus and S. commerson) along with mackerel and carangids were landed by silknets during 15-30 June 2009. Silknets operating in and around Visakhapatnam region (Lawsons Bay, Uppada, Chintapalli, Mukkam, Tippavalasa, Pudimadaka, and Palasa) had similar catch. The catch from the different beach landing centres were transported to Visakhapatnam Fishing Harbour for auctioning and retail marketing.

Spawning of blacklip pearl oyster Pinctada margaritifera in the Visakhapatnam hatchery

Spawning of blacklip pearl oyster Pinctada margaritifera that was collected from Lawson bay, Visakhapatnam, occurred on 27-7-2009 in the Pearl oyster hatchery, Visakhapatnam Regional Centre of CMFRI and the larvae were reared for 13 days.

Breakthrough in spat production of green mussel (Perna viridis) in the pearl oyster hatchery at Visakhapatnam Regional Centre

Green mussel (Perna viridis) has been successfully spawned and larvae were reared up to pediveliger stage. Successful settlement of spat was also achieved in the pearl oyster hatchery of the VRC of CMFRI, Vishakapatnam.

Spawning of the green mussel P. viridis took place on 12th August 2009. About 10.4 million larvae were reared in the hatchery. The ‘D’ stage larvae were obtained within 24 hrs. Feeding was initiated with microalgae Isochrysis galbana. Umbo stage was reached on the 8th day. The eyespot stage was reached on the 16th day. Pediveliger stage was attained on the 19th day. Spat settlement began on the 23rd day and continued up to the 30th day. The spat are being fed with Isochrysis galbana and Chaetoceros calcitrans. About 6,000 spat have settled and are being reared in the hatchery.
Unusual High Tide in Mumbai

Mumbai Research Centre has undertaken a quick survey of fishing Villages during Unusually High Tide on 24.07.2009 off Mumbai on the instructions of the honorable Agriculture Minister.

Pictures of fishing Villages during the unusual high tide off Mumbai

Research brief in Tuticorin RC

- Brooders of Chicoreus sp maintained spawned five times naturally during the period. The number of egg cases ranged from 110-140. Though the egg cases were containing large number of eggs, the hatchlings were limited in each case. Egg cases were monitored for intracellular development. Separate hatching experiments were conducted to access the Chicoreus sp., brooders potential for viable production of juveniles. Hatchlings were reared under different feeding regimen to identify the suitable feed for metamorphosis and juvenile development. Experiment
CMFRI won the Rajarshi Tandon Award

CMFRI won the Rajarshi Tandon Award (Second position) of ICAR for the excellent performance in Official Language implementation for the year 2008. Dr. G. Syda Rao, Director, CMFRI received the award in the function organized on ICAR Foundation Day on 16th July, 2009.

Brooders of Lambis sp

is continuing. Successful rearing of the juveniles upto 22 days (2.9mm) were achieved for large number of juveniles suggesting the possibility of mass culture to suitable size within short period for sea ranching.

- Brood stock of two species of endangered gastropods (Lambis spp and Cypraea tigris) from the landing centre discards were collected. Brooders are successfully being maintained under required feeding regimen.

(Mariculture Division)

Brooders of Tiger cowry shells Cypraea tigris

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(Mariculture Division)
Dr. K. Vijayakuamaran Appointed as Director General, FSI

Dr. K. Vijayakuamaran, Senior Scientist, Mangalore Research Centre of CMFRI has been appointed as the new Director General of Fishery Survey of India. He assumed charge with effect from 9th October 2009. He belongs to the 1985 ARS batch and joined CMFRI in 1986. Dr. Vijayakumaran has acquired several academic qualifications such as PG Diplomas in Applied Statistics, Computer Programming, Environmental Economics, Sustainable Development, HRD, Operations Research apart from MBA and PhD.

Recognition

- Dr. N.G.K. Pillai, Principal Scientist & Head, PFD has been selected to serve as Secretary General of 19th Swadeshi Science Congress scheduled to be held during 10-12 December, 2009 at Kerala Agricultural University, Thrissur.

Dr. Rekha Devi Chakraborty, Scientist, CFD received the Jawaharlal Nehru Award for best doctoral thesis. The study focused to create a database on the incidence and load of V. parahaemolyticus from major fish markets, landing centres and farms located in around Cochin, thereby providing valuable information that can be used while consuming seafoods at domestic and international level. A multiplex PCR method standardized in this study will be an important tool for rapid detection of virulent strains, and will lead to develop a kit for the detection of this pathogen and its virulent genes in a single step.

Academic news

- Shri Sailada Satya Rao, Technical Officer (T–5), VRC of CMFRI, Visakhapatnam has been awarded with post

Dr. K. Vijayakuamaran

Dr. N. Aswathy

Dr. Rekha Devi Chakraborty

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Academic news

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Outreach Activities

- A total of 9 newly recruited ARS Scientists have undergone training in theory and practicals on molluscs and a field trip to oyster and mussel farm at Moothakunnam, Ernakulam District was also arranged.

Training Programmes by FRA Division

- A training programme for seven fresh Senior Scientists/ Scientists of CMFRI was imparted on various topics related to fishery resources assessment from 1st to 15th July, 2009 at CMFRI Cochin.

- A training programme for five apprentice trainees under the State Govt. Programming and Systems Administration Assistant (PASAA) Scheme which has been initiated in to a six month IT applications training module from October, 2008 is in progress.

Training programmes at Tuticorin

- Mabe pearl training at Sipikulam: A training programme on mabe pearl production was organized at
Sipikulam village for 32 women. The training was conducted by the project staff in the village every day. They were taught in image preparation and mabe implantation. Each day, the training was conducted in two batches, one batch from 1000 to 1300 and the next at 1330 to 1630 hrs. in the month of June 2009.

**Pearl culture training:**
Organized a 10-day hands-on training programme on nucleus implantation in a phased manner from 21st July to 14th August for 10 village women from Tuticorin and Pudukkottai area under the MoES/CMLRE project: “Commercialisation marine pearl culture technology *Pinctada fucata*”

**Transfer of technology programmes at Visakhapatnam**
Under NFDB sponsoring project, two 6 m dia open sea floating cages, one off the Uppada, East Godavari district, Andhra Pradesh and the other off the Boruva-Kothhuru, Srikakulam district, Andhra Pradesh, were launched in the Bay of Bengal during August-September 2009. Culture of Asian Sea bass (*Lates calcarifer*) is being demonstrated to the members of 'Burma Repatriates Marine Fishermen Multipurpose Co-operative Society UN Ltd., Uppada' and of 'Marine Fishermen Co-operative Society, Boruva-Kothhuru'.

**Training programmes of KVK**
During the quarter, July - September 2009 the Krishi Vigyan Kendra of CMFRI, Narakkal has organized a total of 18 training courses for 383 beneficiaries under different disciplines including 5 courses in Fisheries for 125 beneficiaries, 6 courses in Agriculture for 89 beneficiaries and 7 courses in Training on Fruit preservation
Home Science for 169 beneficiaries. The beneficiaries included practicing farmers, rural youth and extension personnel.

The different topics covered under the training programmes included, Coastal aquaculture and Ornamental fish culture under Fisheries sector. Under Agricultural sector, Mushroom spawn production and cultivation, Practicing of Coconut climbing machines, Coconut cultivation, Pokkali paddy cultivation and Preparation and application of organic pesticides in Kitchen garden were the topics covered. Value addition of Fish and shrimp, Value addition of Mushroom, Preparation of household cleaning materials and Fruit preservation were covered under Home Science sector.

**On Farm Testing & Front Line Demonstration Programmes**

OFT programmes including Cage culture of Sea Bass (CIBA) in polyculture systems, Farming of Mud Crabs using hatchery produced seed. Trial of small-scale Depuration Unit for clean clam meat production, High-density planting of tissue culture Banana, Farm trials of Coconut climbing machines and Front Line Demonstration programme of Cultivation of high yielding Cassava variety, Sreelekhā & Sreerekha are in progress.

As a part of the Front Line Demonstration programme, planting of the High-yielding Hybrid Coconut, ‘Kerasree’ was inaugurated by Dr. G. Syda Rao, Director, CMFRI at the Thevara Campus of CMFRI on Friday the 31st July 2009. Coconut saplings were also planted by Dr. E. Vivekanandan, Head, Demersal Fisheries Division, Smt. Roja Sethumadhavan, Senior Administrative Officer, Shri. A.V. Joseph, Sr. Finance & Accounts Officer and Smt. K. Vijayalakshmi, Assistant Administrative Officer who were present on the occasion.
Awareness programme organized

The KVK and the Narakkal Community Health Centre of the Amrita Institute of Medical Sciences, Cochin have jointly organized an awareness programme on the ‘Role of the Krishi Vigyan Kendra in Rural Empowerment’ at Narakkal on 12/8/2009. More than sixty people including doctors, health workers and rural men and women participated in the programme.

Science Camp

A Science Camp on Wetland Development, focusing on conservation of Mangroves systems was held at the KVK on 24/9/2009. Twenty four students and a teacher of the B.Sc.Degree course in Zoology of the Cochin College participated in the programme.

Radio Talk

A Talk on ‘Production of Crabs for export’ in local language Malayalam by Dr.K.Asokakumaran Unnithan was broadcast over the Thrissur Station of All India Radio on 3/8/2009 under the Farm & Home Programme.

Farmers on Study Tour to KVK

Under the ATMA Scheme of the Central Ministry of Agriculture, 30 progressive farmers from Kanyakumari (4/8/2009) and 40 farmers from Edappally Block, Ernakulam district (16/9/2009) and 45 farmers from Angamaly, Block, Ernakulam (29/9/2009) visited the KVK. They were given training on culture of different species of finfishes and shell fishes in ponds and cages and value addition of fishes. Another batch of 22 fish farmers from Calicut under the Brackishwater Fish farmers Development Agency of Govt. of Kerala also visited the KVK and got themselves familiarized with the use of cages for nursery rearing as well as grow-out farming of hatchery raised Mud Crab and Seabass seeds.

Visiting farmers observing Sea Bass Cage farming facility

Participation in Exhibitions

- National conference of State Fisheries Ministers at Swastikplaza Bhubaneswar, Orissa organized by CIFA during the period from 4th to 5th July 2009.
- India fish Festival INFISH 2009 organised by NFDB, at People’s Plaza at Hyderabad during the period from 11th to 13th July 2009.
- Haritholsavam - 2009 organised by Ministry of Fisheries of Kerala.
- Participation in Exhibitions INFISH 2009.
Quinquennial Review Team (QRT) visit

The 22nd Quinquennial Review Team of CMFRI, under the chairmanship of Dr. S.A.H Abidi, Former Member of ASRB and Former Director of CIFE, Mumbai visited H.Q. of CMFRI during the period from 25th to 27th May, 2009 along with the members Prof. V. Ravindranath, Former Advisor, CMLRI, Ministry of Earth Science, Dr. Uphare, Former General Manager, NABARD, Prof. S. P. Adhikari, Professor, Dept. of Biotechnology, Utkal University and Dr. M. D. Zingde, Former Scientist-in-Charge of Mumbai Centre of NIO. Dr. G. Syda Rao, Director, CMFRI and Dr. E.V. Radhakrishnan, Member Secretary, QRT also accompanied the team. The division

Exhibitions at Chennai

- Exhibition and aquaria display at Anna University, Chennai in February, 2009.
- Exhibition and aquaria display at Bharathiyar Mat. Hr. Sec. School, Guduvancheri during the period from 13th to 17th August, 2009.

Interaction and Evaluation

Aarambh, the 22nd Quinquennial Review Team of CMFRI visited Kochi during the period from 25th to 27th May, 2009, along with the team members. Professor V. Ravindranath, Former Advisor, CMLRI, Ministry of Earth Science, Dr. Uphare, Former General Manager, NABARD, Prof. S. P. Adhikari, Professor, Dept. of Biotechnology, Utkal University and Dr. M. D. Zingde, Former Scientist-in-Charge of Mumbai Centre of NIO.

Dr. G. Syda Rao delivering a talk in INFISH 2009

CMFRI Pavilion of live ornamentals for Haritholsavam

Aquaria display at Chennai

The QRT visit to CMFRI, Kochi, HQ.
wise achievements at the HQ for the period 2004-2009, were assessed by the team. The team visited all the divisions and sections of CMFRI to evaluate the progress made during 2004-09.

The QRT also visited all the Regional and Research Centres of CMFRI during the last quarter. The team had detailed discussion with the SICs, scientific, technical and administrative staff of these centres.

QRT meeting at VRC of CMFRI, Visakhapatnam
QRT visit at Kovalam Field laboratory, MRC of CMFRI, Chennai

National Scientific seminar

A two day National Scientific seminar on Fish farming in cages was organized on 25th & 26th August, 2009 at CMFRI, Cochin. The seminar was inaugurated by Dr. P.S. Parameswaran, Scientist in Charge, National Institute of Oceanography, Cochin on 25.08.2009. In his address, Dr. Parameswaran highlighted the importance of cage culture of commercially important sea weeds, gorgonids, sponges etc. other than fishes. Dr. G. Syda Rao, Director, CMFRI presided over the function. Dr. K.K. Vijayan, head, MBT Division and Chief Co ordinator of the seminar welcomed the gathering. Smt. Roja Sethumadhavan, Senior Administrative Officer introduced the special publication. On this occasion, the Chief Guest released the special publication on Fish farming in cages. Smt. Sheela P.J., Assistant Director (OL) delivered vote of thanks.

The research papers were presented in two sessions on 26.08.2009 by the scientists and experts. The sessions were chaired by Dr. S.N. Singh, SIC, CIFRI Vadodara and Dr. K.K. Vijayan, Head, MBTD, CMFRI respectively. Best presentation award was bagged by Dr. S.N. Singh, Dr. P. Vijayagopal, Sr.
The Hindi week was celebrated Research Centre of CMFRI from 14\textsuperscript{th} to 18\textsuperscript{th} September 2009.

**Hindi Fortnight celebration at Headquarters**

Hindi Fortnight was observed in CMFRI Headquarters, Cochin from 14 to 26 September, 2009. Various competitions such as Hindi dictation, Noting and drafting, Essay writing, Song, News reading, and Conversation were conducted during this period. The valedictory function of the Hindi Fortnight was held on 26.09.2009 in the auditorium of the Institute. Ms. K. Noorjehan, Hon’ble Member of Central Administrative Tribunal (CAT) Ernakulam Bench was the Chief Guest of the function. In her address, Ms. Noorjehan stressed on the duties of citizen towards the progress of our Nation. Dr. P. Vijayagopal, Senior Administrative Officer welcomed the gathering. Dr. G. Syda Rao, Director, CMFRI presided over the function. Smt. Roja Sethumadhavan, Senior Administrative Officer presented the Message of Hon’ble Union Agricultural Minister.

Chief Guest and Director distributed the prizes to the winners of various competitions and incentives to those who made commendable contributions in Hindi during the year. A cash award of Rs. 4000/- was bagged by Shri. A.T. Sunil under Institute’s Special Incentive Scheme for securing the maximum score. Smt. K.V. Sajitha, PA of CFD won the cash award of Rs. 3000/- for second position and Smt. K.K. Sujatha, LDC won the cash award of Rs. 2000/- for third position in the competitions. Smt. Lakshmi Pillai, Scientist (SS) won the prize for the Best Article in Matsyagandha-2007. Smt. E.K. Uma, Technical Officer (Hindi) delivered vote of thanks.

**The Hindi week at Veraval**

The Hindi week was celebrated Research Centre of CMFRI from 14\textsuperscript{th} to 18\textsuperscript{th} September 2009.

Mr. Rameshwar Chauhan, Scientist (Hindi) delivered vote of thanks.

**Mukhya Laya मुख्य लय में हिंदी पढ़ाई समारोह**

सी एम फी. दिनेश सारस्वत, वरिष्ठ विद्वान, सीएमएफआरआई से 14 तथा 26 अगस्त, 2009 के दौरान हिंदी पढ़ाई मनाया गया। यह अवसर के दौरान हिंदी शृंखलाएं, निबंध, वाणी, न्याय तथा समाचार प्रकाशित एवं समाज सेवाकार जन तथा हिंदी वार्तालाप जैसे प्रसिद्ध साहित्यीय आयोजनों को मनाया गया। हिंदी पढ़ाई का समापन कार्यक्रम 26.09.2009 को संस्थान के संस्थापन के संबंध में संयोजित हुआ। माननीय सुश्री के.नूजहान, सरदार, सी एम फी. दिनेश सारस्वत के वरिष्ठ विद्वान में भूमिका के रूप में हिंदी अभियांत्रिक रहीं। आयुष्मान जन में उठे नए यंत्र के विकास में नागरिकों के कर्नल्स पर जोर दिया। हिंदी वार्तालाप संस्थान, वरिष्ठ विद्वानों ने सभा का उद्घाटन किया। सी.एम.फी.विद्वानों, वरिष्ठ विद्वान ने माननीय संचालक मंडल के संचालक प्रस्तुत किया।

मुख्य अध्यक्ष एवं निदेशक ने विभिन्न प्रतियोगिताओं और प्रतियोगिताओं योजना के विजेता तथा वर्ष के दौरान सरकारी विभागों में हिंदी के कर्नल्स को पुरस्कार प्रदान किया। श्री.ए.टी.सुनिल ने संस्थान की विशेष प्रशिक्षण योजना के अंतर्गत कई प्रकार का पुरस्कार किया। किंतु एक डिप्लोमा को 3000/- रुपये का पुरस्कार, श्रीमती के.नूजहान, पी.एन.सी.के. एक डिप्लोमा की हिंदी स्थापना का 2000/- रुपये का पुरस्कार प्रदान किया गया। श्रीमती ली.के. उमा, तकनीकी अभियांत्रिकी (हिंदी) ने कृतित्व प्रदान किया।
Hindi fortnight at Vizhinjam

Hindi fortnight was celebrated from 14th to 26th September 2009. Competitions were held in connection with the Hindi week celebrations and a meeting was held on the last day of the fortnight. Dr. S.K. Naskar, Director, Central Tuber Crops Research Institute (CTCRI), Sreekaryam, Thiruvananthapuram was the chief guest of the meeting, who distributed the prizes to the winners of the various competitions.

Hindi Pakhwada at Karwar

Hindi Pakhwada was celebrated at the Karwar research Centre from 16-9-2009 to 30-9-2009. Various competitions were held for the staff members on the occasion. A one day workshop was also conducted during the occasion by Shri. M.G. Naik, Officer-in-Charge (OL), BSNL, Karwar and all the staff members attended the workshop. Valedictory function was held on 30-9-2009. Prizes were given away to the winners during the occasion by Shri M.G. Naik.

Inspection

Director, CMFRI inspected the Hindi implementation activities of VRC of CMFRI, Visakhapatnam on 06.07.2009, Madras Research Centre on 07.07.2009 and Mangalore Research Centre on 17.08.2009. Policy suggestions were issued for the progressive use.

OLIC Meeting

The 79th meeting of Official Language Implementation Committee of the Institute was held on 24.09.2009 under the chairmanship of Director, CMFRI, all the Heads of the Divisions and Senior Administrative Officer attended. The progress made in the implementation of Official Language was reviewed in the meeting.

Hindi Workshop at Headquarters

A one day workshop on the subject "Karyalayeen Hindi" was organized on 24.09.2009 for the staff members of the Institute. Shri K. Viswanathan, Assistant Director (OL), CIFNET, Cochin conducted the programme. 16 staff members attended.

निरीक्षण

निरीक्षक, सी एम एफ आर आर ने 06-07-2009 को सी एम एफ एफ आर विश्वविद्यालय केन्द्र, 07-07-2009 को सी एम एफ आर आर मद्रास अनुसंधान केन्द्र और 17.08.2009 को मंगलारे अनुसंधान केन्द्र का निरीक्षण किया। इस दौरान राष्ट्रीय कार्यक्रम के प्रमुख आयोजक भ्रमण हेतु गई।

रा भा का स बेठक

संसद की राष्ट्रीय कार्यक्रम संपन्नता की 79 वीं बेठक 24-09-2009 को निरीक्षक, सी एम एफ आर आर को अनुसंधान में संगठन हुई। सभी प्रतियोगियों के अधिकारों और बरिश प्रशासन अधिकारी के बेठक में भाग लिया।

बेठक में राष्ट्रीय कार्यक्रम में हुई प्रतियोगिता का अनुसार जीता गया।

मुख्यालय में हिंदी कार्यक्रम

संसद में 24-09-2009 को 'कार्यालयीन हिंदी' विषय पर सभी कर्मचारियों के लिए एक विशेष हिंदी कार्यक्रम आयोजित किया गया। राष्ट्रीय कार्यक्रम, सहायक निरीक्षक (रा भा), सी एम एफ आर आर ने कार्यक्रम चलाया। संसद के 16 कर्मचारी सदस्यों ने भाग लिया।
Hindi Workshop at Tuticorin

A Hindi workshop was organized at Tuticorin Research Centre of CMFRI on 26th June 2009. Forty three staff participated in the seminar. Smt Shymalatha Kumari, Hindi Translater and Smt D. Bhagyavathi, nominated by Town Official Language Implementation Committee (TOLIC) took classes on Hindi grammar, noting, drafting, letter writing, translation etc. The prizes won by the staff of Tuticorin RC of CMFRI in Hindi TOLIC competitions were distributed at the Customs House, New Harbour, Tuticorin on 14.08.09.

Hindi workshops at Mumbai

Hindi workshops were organized at Mumbai Research centre on 17.06.2009 and 31.08.2009 & tri-monthly meeting of centre’s Hindi committee was conducted on 10.09.2009.

Hindi workshop at Vishakapatnam

A Workshop on letter writing, noting and drafting in official language for the staff of VRC of CMFRI was conducted on 31-7-2009. Shri Aruni Trivedi, Hindi Pradyapak, Hindi Teaching Scheme, Visakhapatnam was the resource person for the workshop.

Onam Celebration conducted at Cochin Headquarters

The CMFRI Recreation Club organized Onam celebrations on 25th August 2009 with much fun and fervour. The celebrations included a Athapookalam competition in which seven teams participated. FRA Division won the first prize and a cash prize of Rs 2001 with an ever rolling trophy. SEETT Division won the second prize followed by Marine Biotechnology Division Unit bagging the third prize. In addition, Kaserakali competitions and Vadamvali competitions were held. After the ritual Onasadya, a cultural
programme was held in the CMFRI Auditorium.

**Onam Celebration at Vizhinjam Research Centre**

As a part of the recreation club activities, Onam was celebrated at the Centre with a traditional Onasadya and Pookkalam. All the club members participated in the activities.

**Release of final report on artificial reef deployment**

The final report on the successful execution of deployment and monitoring of artificial reef structures at 11 selected sites off Tamil Nadu by MRC of CMFRI for Tamil Nadu Fisheries Department was handed over by Dr. G. Syda Rao, Director, CMFRI to Shri. Shambu Kallolikar, IAS, Commissioner of Fisheries, Tamil Nadu Fisheries Department in a function organized on 18.5.09 at MRC of CMFRI, Chennai.

**Workshop on ‘Biodiversity and Climate Change’**

The Marine Biodiversity Division organized a Workshop on the topic ‘Biodiversity and Climate Change’, for Research Fellows on 15th September 2009. Dr. Ajmal Khan, Professor (Retd.), Annamalai University, delivered lectures on the topics ‘Biodiversity - the Indian Scenario’ and ‘Tools for Biodiversity Studies’. Dr. E. Vivekanandan, Principal Scientist & Head, Demersal Fisheries Division, delivered a talk on ‘How to protect Biodiversity from the adverse effects of Climate Change?’ The lectures were followed by an interactive session. The participants were also taken for a visit to ‘Mangalavanam’, a bird sanctuary in Cochin.

**Revenue Generation**

- ATIC generated a revenue of Rs 51,002/- during the quarter.
- तिमाही के दौरान ए.टी आई द्वारा 51,002/- रुपए का आय जगाया गया।
Visit of DG to MRC of CMFRI, Chennai

Dr. Mangala Rai, Secretary, DARE and Director-General, ICAR visited the various laboratories and library facility of MRC of CMFRI, Chennai on 5th September, 2009. He released the video CD of CMFRI on the deployment and monitoring of the artificial reef structures at selected 11 sites off Tamil Nadu in a function jointly organized by CMFRI & CIBA and honoured by DDG (Fy), Director, CMFRI, Director, CIBA and VC, TANUVAS.

Kochi

Mr. Pedro Pick Bado, Director, PESACO, Montevideo, Uruguay visited on 11.9.09 in connection with the Squid NAIP project.

Mr. Ajit Sinha, Pancham Aqua, Maharashtra, Member Aquaculture Authority of India visited Mussel and oysters farms at Moothakunnam, at Sathar Island, Ernakulam District. He interacted with Mussel farming SHG’s on 11.9.09.

Mr. Amar Ali, P.H. Aquaculture Expert, BFFDA, Ernakulam visited Molluscan Fisheries Division on 11.9.09.

ATIC visitors

833 including 784 students, 45 entrepreneurs and 4 VIPs’ visited ATIC during the quarter.

Mangalore

A review team of cage farming consisting of 22 scientists and experts visited Mangalore Research Centre on 17.08.2009. A full day review meeting was held by the Director, CMFRI for assessing the progress and requisites of cage culture subsequently.

A revenue of Rs.26,100/- has been generated though sale of stock culture of micro algal feed to different shrimp hatcheries in Vishakapatnam.

Vizhinjam Research Centre of CMFRI generated a revenue Rs. 2,81,360/- during the quarter.

Video CD release by Dr. Mangala Rai, Secretary, DARE and DG, ICAR

Video CD release by Dr. Mangala Rai, Secretary, DARE and DG, ICAR

Sri Em Aar Aad Rasad Ac, Kendra, Cheengu mehna nideesh ka maujada

Dr. Mangala Rai, Secretary, DARE and Director-General, ICAR visited the various laboratories and library facility of MRC of CMFRI, Chennai on 5th September, 2009. He released the video CD of CMFRI on the deployment and monitoring of the artificial reef structures at selected 11 sites off Tamil Nadu in a function jointly organized by CMFRI & CIBA and honoured by DDG (Fy), Director, CMFRI, Director, CIBA and VC, TANUVAS.

Kochi

Mr. Pedro Pick Bado, Director, PESACO, Montevideo, Uruguay visited on 11.9.09 in connection with the Squid NAIP project.

Mr. Ajit Sinha, Pancham Aqua, Maharashtra, Member Aquaculture Authority of India visited Mussel and oysters farms at Moothakunnam, at Sathar Island, Ernakulam District. He interacted with Mussel farming SHG’s on 11.9.09.

Mr. Amar Ali, P.H. Aquaculture Expert, BFFDA, Ernakulam visited Molluscan Fisheries Division on 11.9.09.

ATIC visitors

833 including 784 students, 45 entrepreneurs and 4 VIPs’ visited ATIC during the quarter.

Mangalore

A review team of cage farming consisting of 22 scientists and experts visited Mangalore Research Centre on 17.08.2009. A full day review meeting was held by the Director, CMFRI for assessing the progress and requisites of cage culture subsequently.

A revenue of Rs.26,100/- has been generated though sale of stock culture of micro algal feed to different shrimp hatcheries in Vishakapatnam.

Vizhinjam Research Centre of CMFRI generated a revenue Rs. 2,81,360/- during the quarter.
Karwar

- Dr. Ratan Kumar, HKS International Consultant for Oceanarium Technology visited Karwar Research Centre.

Visakhapatnam

- Students and faculty of Diploma in Nutrition and Health Education (DNHE), Dr. V.S. Krishna college, Visakhapatnam visited on 20-07-2009.

Kovalam Field lab RC of CMFRI, Chennai

- Shri. K. Aruljothi, Head, PTSLP, Anumandhai Hr. Sec. School, Villupuram & Shri. Padmanaban, Community Development Officer, Mahalir Thittam, Villupuram on 2nd July 2009 and Shri K. Rajkumar, Head, PTSLP, Anumandhai Hr. Sec School, Villupuram on 7th July 2009.

Kovalam Field lab RC of CMFRI, Chennai

- Capt. R.K. Kumar, DEO AMET University, ECR, Kanathur on 14th July 2009.
- Dr. Priscilla Kumar, Reader, Stella Maris College, Chennai, Ms. Indra Priyadharshini, North Orissa University, Takatpur, Orissa and Ms. Karthikai Devi, CAS, Marine biology, Annamalai University, Parangipettai and Dr. N. Kaliaperumal, Former Principal Scientist, RC of CMFRI, Mandapam Camp on 29th July 2009.

Visakhapatnam

- Students (32 Nos) of M.Sc Biotechnology from L. Bullaiah College, Visakhapatnam visited this centre on 27-8-2009.

Kovalam Field lab RC of CMFRI, Chennai

- Shri Dilip N. Pagdhare, Chairman, Mahim Machhimar V.K.S. Society Ltd., Mumbai and Narendra R. Patil, General Secretary, Maharashtra Machhimar Kruti Samitee, Satpati, Maharashtra visited on 08-09-2009.

Programme Participation

Dr. G. Syda Rao, Director


Visakhapatnam

- Regional Centre/Review of Research projects on 6th July, 2009 and also in connection with the QRT visit from 22nd to 26th July, 2009.
- Mandapam Regional Centre of CMFRI from 1st to 3rd August, 2009.
- Arockyapuram fishing village & Vizhinjam RC of CMFRI from 7th to 9th August, 2009.
Dr. N.G.K. Pillai, Head, PFD

- Felicitated the inaugural function of ‘Nature Activity Leadership Camp for Teachers’ scheduled from 16th to 21st July 2009 at Mangalavanam Bird Sanctuary, Kochi.
- Meeting on ‘Census of Marine Life (CoML)’ held in Bangkok, Thailand during 9-11 August, 2009.
- Organised the QRT meeting as Member Secretary at Calicut, Kerala.
- Organised by the Project Co-ordinator, ICAR Network Project and Project Director, Nat Com at Hyderabad during 2-4 September, 2009.
- Open sea cage culture review meeting at Mangalore Research Centre on 17th August, 2009.
- Meeting in connection with the QRT work at NASC, New Delhi from 20th to 23rd September 2009.
- Meeting on ‘Census of Marine Life (CoML)’, India’ held at Centre for Marine Living Resources and Ecology, Kochi on 29th July, 2009.
- Panel discussion with fisherfolk at Arokapuram fishing village on 8th August, 2009.

Dr. R. Sathiadas, Head, SEETTD

- Review of economic survey work of technical staff of Visakhapatnam Research Centre on 6th July, 2009.
- Panel discussion with fisherfolk at Visakhapatnam Regional Centre from 14th to 17th August, 2009.
- Meeting on ‘Census of Marine Life (CoML)’ held at Centre for Marine Living Resources and Ecology, Kochi on 29th July, 2009.

Dr. E. Vivekanandan, Head, DFD

- Meeting organised by BOBP, Chennai on preparation of Shark Management Plan at Trivandrum on 1st August, 2009.
- Annual Review Meeting of ICAR Network Project on Climate Change organized by the Project Co-ordinator, ICAR Network Project and Project Director, Nat Com at Hyderabad during 2-4 July, 2009.
- FAO’s First Workshop on “Assessment of Fishery Stock Status in the South and Southeast Asia” held in Bangkok, Thailand during 16-19 June, 2009.
- Second Regional meeting on Preparation of Management Plans for Shark Fisheries in Kulhudhuffushi Island (Maldives) organised by Bay of Bengal Programme Inter-Governmental Organization (BOBP-IGO) during 9-11 August, 2009.

Dr. E.V. Radhakrishnan, Head, CFD

- Organised the QRT meeting as Member Secretary at Calicut, Mangalore and Karwar Research Centres from 14.7.2009 to 17.7.2009 and Visakhapatnam Regional Centre and Chennai Research Centre, from 23rd to 27th August, 2009.
- National Organising Committee meeting in connection with RALBAM 2010 at NIOT, Chennai.

Dr. K.S. Mohamed, Head, MFD

- FAO’s First Workshop on ‘the Assessment of Fishery Stock Status in the South and Southeast Asia’ held in Bangkok, Thailand during 16th to 19th June, 2009.
- Panel discussion on 9th June, 2009 at Centre for Earth Science Studies, Akkulam, Thiruvananthapuram and brief presentation of work/idea on climate change pertaining to the Central Kerala and adjoining sea extending upto Lakshadweep.

Dr. V. Singh, Principal Scientist

- Review workshop on Vulnerability and Adaptation Component of Agriculture Sector of Second NATCOM (SNC) on 2nd July, 2009 and Annual workshop of ICAR Network Project on Climate change on 3rd & 4th July, 2009 at CRIDA, Hyderabad.

Dr. V. Kripa, Principal Scientist


Dr. G. Maheswarudu, Principal Scientist

- Attended the Internal Cage Culture Review Meeting conducted by the Director on 17th August 2009 at Mangalore Research Centre of CMFRI along with Sri. Ritesh Ranjan, Scientist.

Dr. J. Jayasankar, Senior Scientist

- Fifth meeting of the “Working Group for monitoring implementation and review of IOTC resolution” held at Fishery Survey of India, Mumbai on 21st August, 2009
- ‘Fourth advanced programme on Cyber Laws, Information Security and Computers’ sponsored by Department of Science and Technology, Govt. of India at Indian Institute of Public Administration, New Delhi from 7th to 13th September, 2009.

Dr. K. Vijayakumaran, Senior Scientist

- National Marine Turtle Advisory Committee meeting on 18th June 2009 at MOEF, New Delhi.
- Delivered a talk on the Upwelling and Fisheries at SACON, Coimbatore on 8th July 2009.

Dr. R. Narayanakumar, Senior Scientist

- National Workshop cum Consultation on Evaluation and Valuation of Fish Genetic Resources at the National Bureau of Fish Genetic Resources at Lucknow on 24th & 25th July 2009.

Dr. Vipinkumar V.P., Senior Scientist

- India Fish Festival INFISH 2009 for coordinating CMFRI pavilion organised by NFDB at Hyderabad during the period from 11th to 13th July, 2009.

- Dr. V. V. Singh, Principal Scientist

- Review workshop on Vulnerability and Adaptation Component of Agriculture Sector of Second NATCOM (SNC) on 2nd July, 2009 and Annual workshop of ICAR Network Project on Climate change on 3rd & 4th July, 2009 at CRIDA, Hyderabad.


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Open sea cage culture review meeting at Mangalore Research Centre on 17th August, 2009.

Dr. P.S. Swathi Lekshmi, Scientist, (S.S.)

National Workshop cum Consultation on Evaluation and Valuation of Fish Genetic Resources at the National Bureau of Fish Genetic Resources at Lucknow on 24th & 25th July 2009 and presented a paper on the “Role of Farmers in Conservation of Fish Genetic Resources-Required Extension Interventions”.

Dr. K. Asokakumaran Unnithan, SIC, KVK

Scientific Advisory Committee Meeting of the Krishi Vigyan Kendra of Central Plantation Crops Research Institute (ICAR), Kayamkulam in Alleppey District on 6th August, 2009.

Shri B. Suresh Kumar, Technical Officer and Farm Manager, KVK

Scientific Advisory Committee Meeting of the Krishi Vigyan Kendra of Kerala Agricultural University at Vellanikkara, Thrissur on 6th August 2009.

- **APPOINTMENTS / नियुक्तियाँ**

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<th>Designation / पदनाम</th>
<th>Centre / केंद्र</th>
<th>w.e.f / भर्ती का तारीख</th>
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<tbody>
<tr>
<td>Dr. M.S. Madan</td>
<td>Principal Scientist</td>
<td>CMFRI, Kochi</td>
<td>24.07.2009</td>
</tr>
<tr>
<td>Miss. Biji Xavier</td>
<td>Scientist</td>
<td>CMFRI, Kochi</td>
<td>18.06.2009</td>
</tr>
<tr>
<td>Smt. K.V. Susheela</td>
<td>LDC</td>
<td>Tuticorin RC</td>
<td>25.06.2009</td>
</tr>
<tr>
<td>Shri L. Pydi Raju</td>
<td>LDC</td>
<td>Visakhatpatnam RC</td>
<td>18.07.2009</td>
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- **PROMOTIONS / पदोन्नतियाँ**

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<td>From / से</td>
<td>To / तक</td>
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| Smt. K.M. Annamma   | Assistant                     | CMFRI, Kochi | 10.08.2009 |
| S. M. S. Mathamari  | U DC                         | Mandapam RC  | 11.08.2009 |
| Shri Sathyawen Neelraj | LDC            | Tuticorin RC | 01.07.2009 |
| Smt. Annies Mary Paulose | U DC       | CMFRI, Kochi | 31.07.2009 |
| Miss Sreedevi M.R.  | LDC                           | CMFRI, Kochi | 06.08.2009 |

- **ASSUMPTION OF CHARGE / पदभार**

Shri A. V. Joseph assumed the charges of Senior Finance & Accounts Officer of CMFRI on 30.06.2009.

Dr. G Maheswaradu, Principal Scientist assumed the charges of SIC, Visakhatpatnam RC on 28.08.2009.
TRANSFERS / स्थानन्तरण

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<tr>
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<tr>
<td>Dr. V.S. Kakati</td>
<td>Principal Scientist</td>
<td>Karwar RC</td>
<td>Mandapam RC</td>
</tr>
<tr>
<td>Dr. (Ms.) P. Laxmilatha</td>
<td>Senior Scientist</td>
<td>Calicut RC</td>
<td>Visakhapatnam RC</td>
</tr>
<tr>
<td>Dr. (Smt.) Reeta Jayasankar</td>
<td>Principal Scientist</td>
<td>CMFRI, Kochi</td>
<td>Puri FC</td>
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<tr>
<td>Dr. P. Kaladharan</td>
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<td>Visakhapatnam RC</td>
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<td>Dr. M.S. Madan</td>
<td>Principal Scientist</td>
<td>CMFRI, Kochi</td>
<td></td>
</tr>
<tr>
<td>Ms. Bijji Xavier</td>
<td>Scientist</td>
<td>CMFRI, Kochi</td>
<td></td>
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<tr>
<td>Shri A. Yesudhas</td>
<td>LDC</td>
<td>Mangaluru RC</td>
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Inter-institutional Transfer / अंदर संस्थानीय स्थानन्तरण

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<tr>
<td>Shri G.P. Sharma</td>
<td>SFAO</td>
<td>CMFRI, Kochi</td>
<td>ICAR, New Delhi</td>
</tr>
<tr>
<td>Shri P.J. Davis</td>
<td>AAO</td>
<td>CMFRI, Kochi</td>
<td>CTCRI, Trivandrum</td>
</tr>
<tr>
<td>Miss M.R. Sreedevi</td>
<td>UDC</td>
<td>CMFRI, Kochi</td>
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RETIREEIS / संबंधिताप्रमाण

Retirement on Superannuation / आवधिकांत पर संबंधिताप्रमाण

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<tr>
<td>Shri M. Xavier Mohandas</td>
<td>T-5 (TO-Motor Driver)</td>
<td>Tuticorin RC</td>
<td>30.06.2009</td>
</tr>
<tr>
<td>Dr. P.M. Aboobacker</td>
<td>T-7-8 (Technical Officer)</td>
<td>KVK, Narakkal</td>
<td>31.07.2009</td>
</tr>
<tr>
<td>Shri V. Thanapathi</td>
<td>T-5 (Technical Officer)</td>
<td>Madras RC</td>
<td>31.08.2009</td>
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MEETINGS / बैठक

Meeting of the Chairs of QRT & RAC with the Directors of Fisheries Research Institutes held at CMFRI, Kochi during 20-21 August, 2009.
National Seminar on Enhancing Agricultural Productivity and Profitability was held at CMFRI, Kochi during 29-30 August, 2009.

OBITUARY / निधन

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<td>Shri P. Pasupathi Rao</td>
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