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CMFRI NEWSLETTER

No. 103 July - September 2004

ALTERED RIVER FLOW A THREAT TO THE LIFELINE OF COASTAL WATERS

Un-impounded rivers provide energy for a number of vital processes in down stream estuaries and coastal areas upon which healthy fisheries are dependent. Freshwater and sediment inputs from rivers play a major role in sustaining estuarine and coastal ecosystems. The silicate inputs from rivers fertilize the seas by stimulating the production of diatoms which fuel food webs and play a crucial role in the biological uptake of CO_2 by the ocean. In the last few decades, human activities have caused enormous changes both in the nature and quantity of these inputs along the coasts of India. Analysis of historic data on river discharge covering 30 major east and west flowing rivers of India showed that fresh water discharged into coastal waters were reduced at an alarming rate due to damming or river diversions. Any water management that reduces the river runoff by 25% will result in negative effects on coastal and estuarine ecosystems.

The Central Marine Fisheries Research Institute has successfully completed a research project on the **Impact of dams on river run-off into sea and changes in the nutrient and productivity profile of coastal waters** with a funding of Rs. 76 lakhs under the National Agricultural Technology Project (NATP). The project was carried out at Mangalore, Cochin, Veraval and Visakhapatnam in collaboration with the Department of Microbiology, College of Fisheries, Mangalore during 2000-2003. The investigation was carried out along six rivers on the west coast; *Sharavathi* and *Nethravathi* in Karnataka, *Mahe* and *Periyar* in Kerala and *Bhadar* and *Netravati* in Gujarat and three rivers on the east coast; *Sarada*, *Godavari* and *Gosthani* in Andhra Pradesh.

Results of the study indicated that the river discharge rate was found to be influencing the nutrient biogeochemistry, productivity and sediment flux in the estuarine and coastal waters. Water salinity and pH showed significant negative correlations with river discharge and high saline conditions were observed in the estuarine and river mouth areas with low river discharge. Reduction in runoff has reduced some of the river mouths into high saline creeks and affected the estuarine and mangrove habitats in Gujarat coast. Levels of BOD, ammonia and toxic trace metals (Cd, Pb, Cu and Zn) in the estuarine and coastal waters were also found to be high in areas with low river discharge. Similarly, sediment bound sand, total silica and nutrients were positively related while silt, clay and toxic metals were negatively correlated with river discharge.

The study shows that the hydrological alterations can introduce subtle changes in the chemistry of rivers with long-term consequences for coastal ecosystems. The findings of the present study are very important with reference to the proposed river linking projects in our country.

From the Director's Desk

The recent FAO publication "Capture Based Aquaculture" has brought in to focus the status of the practice of capturing young fish and growing them in captivity to marketable size for commercial purposes. Although this has been an age old practice in several parts of the globe, in recent years, this practice, also known as fattening in commercial circles, has achieved significant proportions in south east Asian countries where there is a large and flourishing trade for live fish. In most documents, this practice is considered as mariculture, although in the strict sense it is only capture fisheries.

The marine fisheries of the south Asia are under heavy fishing pressures and stagnating showing signs of over fishing in several demersal stocks. The high value live reef fish trade is focused on species such as groupers, coral trouts, breams etc. Among these, the groupers are the most sought after fishes and on which lot of information exists. The information presented in the FAO book is very interesting and disturbing. For example, it is reported that the production of groupers from capture based mariculture from India is around 200 tonnes (?!) annually. If so, certainly, we are concerned. Is the practice of collecting young fish and growing them in captivity sustainable from the resource management point of view? To answer this question, we will have to look at the biology of the groupers more closely.

Groupers start their sexual life as females and a few of them change to males when they are through several years in life, by which time they attain sizes large enough for the trade. Selective removal of the large ones for trade certainly will adversely affect the potential males from contributing to the reproductive processes of the population. As a result of this, there could be recruitment failures and stock size would dwindle. However, in addition to this, there is also a potential danger in the capture-based mariculture of the juveniles. As the grouper eggs are pelagic and drift away, the initial mortality would be fairly high. It is known that in those species where the egg production is very high, there happens a high mortality (density dependent mortality) between egg hatching and recruitment. This is a natural mechanism to regulate over dominance of any species in nature. When such a high mortality exists, only a couple of individuals survive to grow and reach the adult life. Therefore, we need to understand the level of this type of mortality in the young ones between hatching and recruitment in the case of the much sought after species like the grouper. If the natural mortality is high in these fishes after settlement as a juvenile, then capture of young ones for stocking in pens for the capture based mariculture will not have much impact on the adult stock as many of the juveniles will even otherwise die. But if the mortality is low after settlement as juvenile, removal of the juveniles will result in a situation where fishing mortality will form the bulk of the total mortality and therefore, capture of juveniles will adversely affect the adult stock. Therefore, it is prudent in such cases, to consider such removal of juveniles at par with a targeted capture fishery and enforce appropriate management interventions applicable to capture fisheries management.

The conclusions from the above point towards the need for research findings on the early life and population dynamics of the juveniles of target species such as groupers before we are in a position to advocate capture based mariculture in large scale in our country. Perhaps, it may also be possible for us to develop techniques to capture late larval stages and rear them in nurseries before stocking in pens in those species in which natural mortality is high in larvae. However, heavy targeting of the larval collection of species with specific habitat requirements or seasonality in breeding may also adversely affect the natural stock.

Artificial habitats and FADs are perhaps useful in attracting juveniles of desirable species suited for stocking in capture-based mariculture. But the question remains whether such stocking is sustainable. Are such artificial habitats able to reduce the natural mortality of the abundant larvae, which would have otherwise perished? Or, are these artificial habitats attracting only those juveniles that would otherwise settle successfully at the sea bottom? By attracting them to the artificial habitats, are we increasing their fishing mortality? All these are questions one would like to answer before advocating large scale capture based aquaculture of high value species like groupers, lobsters etc. Research efforts are to be targeted at these questions. Perhaps a right type of impact assessment of artificial habitats and FADs is in identifying these rather than trying to quantify the increase in fish yields consequent to FADs and artificial habitats. Selective fishing through FADs is now discouraged worldwide as it poses serious threats to fish stocks. Therefore, indiscriminate increase in FADs should be discouraged in the coastal waters. Perhaps in the oceanic waters this could be advantageous as recently demonstrated by the NATP-CMFRI project in the Minicoy islands where substantial increase in the landings of tuna was recorded after installation of FADs. So a precautionary approach is needed while deploying FADs.

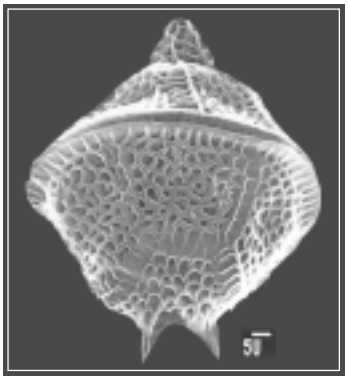
Hatchery based production of juveniles perhaps could be the only sustainable alternative to wild caught juveniles in stocking sea farming. There is need for further research and commercialization of the technologies already developed. Only then, sea farming will mature in to a sustainable and resource friendly activity capable of addressing the need for farm reared high value seafood.

Mohan Joseph Modayil

NEWS FROM THE RESEARCH FRONT

Dinoflagellates taint Thiruvananthapuram coast

Two incidents of 'red tide' occurred as a result of population explosions of the algae, belonging to the Division Pyrrhophycophyta, commonly called as dinoflagellates in the coastal waters off Thiruvananthapuram during September; the first incidence at Thankassery near Kollam on 10th and the second in Valiathura – Vizhinjam area during 17th and 18th. The causative organisms for the algal blooms were identified as dinoflagellates (35 – 45 µ), the non-toxic *Cochlodinium citron* off Thankassery and the toxic *Gonyaulax diegensis* off Valiathura, which had earlier bloomed in the same area during September 17, 1997.



Scanning Electron Micrograph of *G. diegensis*

The algal blooms caused harmful effects such as clogging of gills in fishes leading to fish kills, decline of dissolved oxygen to levels unfit for bay life as a result of its consumption by the bloom, emanation of obnoxious gases due to bacterial decomposition of the algal remains after the bloom and putrefaction of dead fish leading to respiratory disorders especially among children. Toxic blooms of dinoflagellates fall into three categories: (1) blooms that kill fish but few invertebrates (2) blooms that kill primarily invertebrates and (3) blooms that kill few marine organisms but concentrate toxins within the siphons or digestive glands of filter-feeding bivalve molluscans causing shellfish poisoning. Eventhough results of the Mouse Bio-assay tests conducted at CIFT had revealed that toxins were not present at detectable levels in fish samples collected from the algal blooming sites, the CMFR Institute warned the public against consumption of mussels, clams, oysters and other bivalves from the area as a precautionary step to do away with the possibility of any instance of shellfish poisoning.

Possible causative factors responsible for the red water phenomena have been cited as:

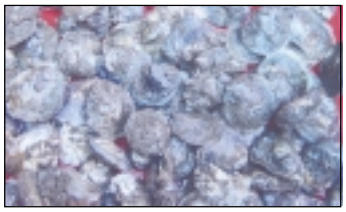
- Rapid germination of the dormant dinoflagellate cysts which on ascending to the surface alongwith the nutrient rich upwelled water during the post SW monsoon period led to its blooming
- Optimum conditions provided by the nutrient availability alongwith good sunlight during the season
- Eutrophication in the coastal waters as a result of the increase in domestic sewage and industrial effluents along the thickly populated coastal area

There are possibilities for recurrence of this phenomena in future as we are facing such blooms along the Calicut coast every year during September-October period due to the blooming of *Hornellia moina*, a green flagellate, causing serious damages to the fishery.

A simple method devised for mass collection of spats

At the CMFRI demonstration cum research farm at Moorad Estuary in Kozhikode District, clam shells were suspended in nylon cage boxes during the spat fall season. Heavy spat fall of the oyster *Crassostrea madrasensis* occurred and the spats settled on clam shells could be used for producing regular shaped individual oysters. Individually grown regular shaped oysters have great export demand.

Spats settled on clam shells



Regular shaped oysters grown in the farm

Phytase from a Novel *Bacillus*

Phytase enzyme extracted from a novel *Bacillus* isolate of a mangrove swamp has been purified and characterized. Phytase has application in improved utilization of phosphorous from phytic acid containing feed ingredients. The phytase activity of the crude extract which was 1.24 x 10^3 phytase unit/ml (PU/ml) after gel exclusion and ion exchange chromatography increased to 4.64 and 9.54 x 10^6 PU/ml respectively.

Baby sea horses tagged

To study the natural growth, migration and recruitment pattern of sea horses, a total of 366 laboratory - reared sea horses, *Hippocampus kuda*, were tagged. They were released in the sea grass and soft coral beds at depths ranging from 5 to 6 m along the Palk Bay near Ramanathapuram during June 2004.

Serially numbered thin plastic sheets (7 x 5 mm) were tied to the neck region of the sea horses measuring an average length of 106 ± 14.08 mm and weighing 22.57 ± 1.22 g. Pamphlets explaining the importance of tagged sea horses were distributed to about 1000 fishers in four of the coastal villages adjoining the bay.

Consecutive failure of *Chakara* in Kerala

There was some calmness in the sea during July in the coastal areas of Alleppey in the south and Chavakkad in the north, but a full fledged *Chakara (*mud bank) failed to settle successively for the fourth year, shattering the hopes of traditional fishermen. Unequal balance in pressure towards the sea in the river run off, timely formation of a wind in the opposite direction and the strength of the southerly current seemed to have prevented poor settlement and fermentation of mud into the colloidal format required for *Chakara* formation. The changing pattern in climate seems to have a profound influence in the formation of mud banks.

The untimely heavy rainfall, which started by first week of May, also appeared to have a negative impact on fisheries. However, rainfall during the southwest monsoon has been below normal during the past few years registering a decline by 14, 34 and 39 percent during the years 1999, 2000 and 2002 respectively. This year the state received 22% less rainfall (173 cm) than the long-term normal average of 213 cm during the SW monsoon season from June to September.

Visakhapatnam, a major landing centre for yellowfin tuna in India

Yellowfin tuna (*Thunnus albacares*) are being landed by hook and line units at Visakhapatnam. Presently, annual landings are about 2000 t comprising of fishes ranging from 1.5 to 50 kg weight. Experimental longline operations by modified shrimp trawlers have shown good results with high hooking rate and 40-50% tuna meat in *sashimi* grade.

NEW HEIGHTS

The Indian Council of Agricultural Research, New Delhi has approved a National Network Project on **'Impact Adaptation and Vulnerability of Indian Agriculture and Climate Change'** under X Plan for CMFRI. A total outlay of Rs. 910.87 lakhs as ICAR share has been approved for the period 2004-05 to 2006-07 of which CMFRI will be getting an amount of Rs. 67.99 lakhs. Besides the CMFR Institute, Cochin, ten other ICAR Institutes and five Universities will be participating in this Network Project. Technical programme to be taken up by the Institute include: (i) Using historical and current data from identified areas on direct and indirect impact of climate change on marine fisheries (ii) Benchmarking study on the impact of climate changes on marine fishery resources using indicators (iii) Identifying major changes if any in the biodiversity pattern of primary and secondary producers (iv) Identifying fish species vulnerable to climate changes (v) Studying the impact of climate changes on sensitive ecosystems such as mangroves and coral reefs and (vi) Creating database on key environmental parameters, indicators for tracking future assessment and prediction of impact of climate changes on marine fisheries.

A Network Project on **'Cattle Feed Production from Selected Seaweeds of Indian Coasts'** funded by ICAR AP Cess Fund has been sanctioned for CMFRI in collaboration with NDRI, Karnal and Department of Botany, Delhi University. Of the total outlay of Rs. 21,59,250/-, CMFRI will get a share of Rs. 6.22 lakhs.

The Indian Council of Agricultural Research (ICAR) has approved a research proposal on '**Economics of Trawl Fishing in Andhra Pradesh and Kerala'** under ICAR-AP Cess Fund Scheme. The project with a total sanctioned budget of Rs. 19.35 lakhs is for a period of three years.

A movie entitled **Colourful Voices of Responsible Fisheries** has been produced as a part of the NATP Project on 'Designing and validation of communication strategies on responsible/sustaining fisheries'.

ACADEMIC NEWS

ICAR Award for Best Ph.D. Thesis won

Dr. Joseph Selvin, Former Senior Research Fellow, ICAR Ad-hoc project at Vizhinjam Research Centre of CMFRI has been selected for the **Jawaharlal Nehru Award for Postgraduate Agricultural Research 2003** by the Indian Council of Agricultural Resarch for his thesis entitled 'Shrimp disease management using bioactive secondary metabolites from marine organisms' under the guidance of Dr. A.P. Lipton, Principal Scientist.

Ph.D. Awards

Scholar	Guide	Title of Theses
C.P. Suja	Dr. N. Sukumaran, Dean, Faculty of Sciences, MS University	Mantle tissue culture of abalone, *Haliotis varia* Linnaeus.
K. Leena	Dr. V. D. Deshmukh, Principal Scientist	Reproductive dynamics of *Metapenaeus affinis* in Mumbai waters.
Gireesh R.	Dr. C.P. Gopinathan, Principal Scientist	Algal nutritional requirements of larvae of *Paphia malabarica.*

TRANSFER OF TECHNOLOGY

Training for practising farmers

Krishi Vigyan Kendra of the Institute at Narakkal conducted 34 multi-disciplinary training courses with the objective to create self-employment through entrepreneurship development and imparted training to 674 villagers during July-September period. The number of training courses and beneficiaries in each discipline are as follows: Fisheries 9-188; Agriculture 12-217 and Home Science 13-269. The rural folk were imparted training in ornamental fish culture, cultivation of jasmine, vanilla & mushroom and in the preparation of pickles, jams, cleaning powder and value added vegetable and fish products. Eight of the training programmes were undertaken in collaboration with various government and non-government agencies.

Training for entrepreneurs

A training programme on the '**Post harvest and value addition techniques in seaweeds**' was conducted by the Fishery Environment Management Division at the Mandapam Regional Centre of the Institute during 20-25 September. Eleven trainees, eight of them women, including farmers and personnel in seaweed industry, research scholars and extension workers participated in the training whereby an amount of Rs. 22,000/- was generated as training fee.

A training workshop on **Marine Pearl Culture** was organized at the Minicoy Research Centre of the Institute under the NATP Project on 'Augmentation of Marine Fish Production in Lakshadweep' from 30th September to 4th October. The training workshop, the first of its kind in the Lakshadweep islands, was attended by 48 participants including prospective entrepreneurs and resource personnel. 12 students belonging to various science clubs were also selected to attend the workshop so as to create scientific awareness in their young minds.

All aspects of the culture techniques of pearl and mabe pearl production were taught through theory and practical classes.

Sales through the Agricultural Technology Information Centre

An amount of Rs. 26,190/- was generated through sale of technology, products and services rendered through the ATIC functioning at the Institute Headquarter for the period July-September.

The sales outlet of ATIC also provided the opportunity for sale of shrimps realizing Rs. 5000/- to a farmer who undertook farming under CMFRI technical guidance.

VCDs on sale

Monsoon Season Post Harvest Handling in the Traditional Fish Processing in India (Rs. 200/-)

Our Fish Our Wealth (Rs. 400/-)

Mussel Farming in Open Sea & Estuaries in Karnataka Coastal Belts (Rs. 200/-).

Inputs provided for molluscan farming activities

Training was imparted in edible oyster culture to women members of Kudumasree unit of Sathar Island in Ernakulam District.

A mussel raft with specially designed FRP floats has been moored at Thangassery in Kollam District during September for undertaking mussel farming activities.

Technical support was rendered by the Institute for farming of edible oyster to four women SHG's at Mukkam in Kollam. Successful harvest of the oysters was carried out in September.

INTERACTION & EVALUATION

Farmers' Meets

Krishi Vigyan Kendra of the Institute conducted farmers' meets in collaboration with Krishi Bhavans at Kadayiruppu, Edavanakad and Kunnathunad grama panchayats. Shri Haji T.H. Mustafa, MLA, Kunnathunad inaugurated the meets at Kadayiruppu and Kunnathunad on 17th and 18th August wherein 83 and 150 farmers participated in seminars held on **Ornamental fish culture** and **Jasmine cultivation** respectively. Dr. M.A. Kuttapan, Hon'ble Minister for backward classes inaugurated the meet at Edavanakad held on 17th August wherein 105 farmers including 35 women participated in the seminar on Jasmine cultivation.

Mahila Meet

A mahila meet was arranged at Peringala in Kunnathanad grama panchayat. Shri K.H. Mohammed, Member, Kunnathunad grama panchayat inaugurated the meet. 25 rural women were briefed on **empowerment of women** by starting self-employment units. Preparation of garlic pickle was also demonstrated to the participants.

QRT Meeting

Quinquennial Review Team (1999-2004) held its first meeting at CMFRI, Headquarters on 21st & 22nd August. Members of QRT consisted of Chairman, Dr. E.G. Silas, Former Vice Chancellor, Kerala Agricultural University, Dr. Amalesh Choudhary, Retired Professor & Head of Marine Science, Calcutta University, Dr. S.L. Shanbhogue, Ex-Director, College of Fisheries, Mangalore, Dr. N.R. Menon, Retired Director, School of Marine Science and Dr. V. Gautam, Emeritus Professor, IIT, New Delhi.

After visiting the facilities available at headquarters and listening to the presentations made by the Director and Heads of Divisions, the committee critically reviewed the progress made in research work. The Committee further visited research centres at Calicut, Mangalore and Karwar to review the progress of research work carried out at these centres.

The committee proposes to visit all the other research centres of the Institute during the coming months.

Institute Joint Staff Council Meeting

The fourth meeting of the IX Institute Joint Staff Council (IJSC) was held under the chairmanship of Prof. (Dr.) Mohan Joseph Modayil at the Visakhapatnam Regional Centre. The following members of IJSC represented the official side: Dr. P.N. Radhakrishnan Nair, S/Shri K.L. Meena, P.R. Leopold and N. Viswambharan-Secretary. The staff side was represented by S/Shri S. Haja Najeemudeen – Secretary, V.A. Narayanankutty, N. Govindan, P.P. Pavithran, A.K. Kunjipalu, I. Syed Sadiq, A.P. Sebastian and G.K. Rajan.

Prof. (Dr.) Mohan Joseph Modayil, the Chairman of the IJSC introduced Shri. K.L. Meena, who has taken charge as Senior Administrative Officer of the Institute and welcomed the members of the IJSC. The Chairman in his address emphasized the need for a change in work culture and preparedness to share the responsibilities for enabling the Institute to achieve its mandate. A professional touch is to be brought into the system in tune with the changing times to meet the challenges in the fisheries sector. He called upon the employees to work with vision and long-term objectivity. The Director reminded the members the important role IJSC has to play in motivating the staff members and improving their work efficiency. The Chairman further took up the items in the agenda of the meeting. Action taken report on the decisions of the earlier IJSC meeting was presented. Members offered their suggestions in the deliberations that followed.

Seminar Held

- Molluscan Fisheries of India – Shri K.R. Somayajulu at Kakinada Research Centre.

OFFICIAL LANGUAGE IMPLEMENTATION

Hindi Week 2004

Hindi week was observed from 14-20 September at the Institute Headquarters, Regional Centres and Research Centres by organizing various competitions to encourage original writing, to speak and to use information technology aids to propagate and speed up the usage of Hindi.

At the **Mandapam Regional Centre,** Lt. Cdr. Sanjay Karvey inaugurated the Hindi week celebration on 15th September. Lt. Ashik Khosla delivered the valedictory address on 21st and gave away the prizes to the winners of the various competitions held during the week. At the **Veraval Regional Centre**, Dr. Rajendra Badonia, Scientist-in-Charge of CIFT Veraval, the chief guest of the valedictory function, gave away prizes to the winners of the various competitions held during 14-21 September. At **Madras**

A glimpse of the valedictory functions at Veraval & Madras Centres

Research Centre, Dr. Gupta Principal Scientist, CIBA, the chief guest of the valedictory function distributed prizes to the winners of the various competitions held during 15 - 18 September. At **Tuticorin Research Centre**, the chief guest Shri O. Sivakumar, Pradhyapak of Hindi teaching scheme evaluated the competitions held. Shri Sivakumar in his speech stressed on the need of a link language for the nation. At **Karwar Research Centre**, the chief guest of the valedictory function of the Hindi week celebration programme, Shri. Nagendra Rao, Hindi Officer of Syndicate Bank, in his speech highlighted the importance of Hindi as the link language. At the **Mangalore Research Centre** Shri G.S. Bhat was felicitated at the function organized on the Hindi Day, for winning the First position in Hindi grammar and Third position in Hindi knowledge competitions organized by Mangalore TOLIC.

At Headquarters, the ***Hindi Day*** on September 14th was observed as ***Sandesh Bhejo Diwas*** by calling forth messages on linguistic harmony through the use of latest communication methods. A General Knowledge quiz competition in Hindi was held on 15th, observed as the **General Knowledge Day** wherein five teams representing various Divisions/Sections participated. On the **Technology Transfer Day** observed on 16th, an essay

competition on the topic 'Marine Capture and Culture Fisheries' was conducted. On the **Write Hindi, Speak Hindi Day**, 39 personnel voluntarily participated in the Hindi workshop held on 17th. On the **Information Technology Day**, on 18th September, a

A view of the Hindi Workshop

competition was held in Hindi computing in order to assess the proficiency in Leap Office software.

The valedictory function of the week long celebration was chaired by Prof. (Dr.) Mohan Joseph Modayil. The Chief Guest, Dr. Atmanand Srivastav, Head of Post Graduate Department of *Dakshin Bharat Hindi Prachar Sabha*, Cochin, gave away the prizes to the winners. Shri N.K. Sanil was felicitated for ensuring 100% work in Hindi at the Electron Microscope Lab of the Institute Headquarters.

Winners of incentive schemes, for the work done in Hindi, during September 2003 – August 2004

CMFRI Special Incentive Scheme for original work in Hindi**:**

*Dr. E.V. Radhakrishnan	First Prize	Rs.4000/-
*Dr. S. Sivakami & * Smt. K.V. Sajitha	Second Prize	Rs.3000/- each
*Shri P.P. Chandrasekharan Nair, *Shri Chandrakesa Shenoy & * Smt.Geetha P.	Third Prize	Rs.2000/- each

Central Government Incentive Scheme for writing minimum 10,000 words in Hindi during April 2003 to March 2004:

*Dr. E.V. Radhakrishnan & * Shri P.K. Ravindran - Rs. 1,000/-each

Best presentation award in scientific seminars in Hindi**:**

*Dr. S. Sivakami & Dr. Reeta Jayasankar - Rs. 500/- each

Best scientific paper published in Hindi**:**

*Dr. M. Rajagopalan and Dr. V.V. Singh - Rs. 500/-

Rajbhasha Pratibha Award for the overall performance in the implementation of the Official Language during 2003-2004:

*Dr. E.V. Radhakrishnan

Rajbhasha Rolling Trophy to the Division/Section scoring the maximum points in the competitions held during Hindi week:

*Fishery Environment Management Division &
*Crustacean Fisheries Division jointly received the trophy

Dr. (Smt.) V. Chandrika (FEMD) and Dr. E. V. Radhakrishnan (CFD) receiving the Rajabhasha Rolling Trophy from Dr. Atmanand Srivastav

Congratulations to winners

- Dr. (Smt.) Somy Kuriakose, Scientist and Shri Joice Abraham, Ph. D. scholar won the second prize in the **Golden Jubilee Quiz Competition** in Hindi conducted by the Coir Board, Cochin.
- Shri C.D. Manoharan, Personal Assistant, successfully completed the Hindi Stenography Course conducted by the Hindi Teaching Scheme of the Department of Official Language (GOI), Cochin.

IN-HOUSE EVENTS

Independence Day was celebrated on 15th August and the National ***Sadbhavana Diwas*** was observed on 28th August at the Institute Headquarters, Regional and Research Centres.

The newly established **Central Laboratory** in the Lab-cum-Office building of the Institute Headquarters was inaugurated by Dr. S.L. Mehta, National Director, NATP on 28th July.

The following staff members were declared elected on 17th September to serve in the **Grievance Committee**:

Scientific -	Shri P. Vijayagopal**,** Scientist (SG), Mandapam Regional Centre
Technical -	Shri L. Jayasankaran, Sr.Technical Asst.(T-4), Madras Research Centre
Administrative-	Shri S.K. Murali, Assistant, Madras Research Centre
Supporting-	Shri Joseph Mathew, Gestetner Operator at Headquarters.

Recreation Club Activities at Headquarters

- A talk on **Cardiac Pulmonary Resuscitation** (CPR) by Dr. M. R. Rajagopalan, Professor and Head of Dept. of Anaesthesiology and Palliative Medicine, Amrita Institute of Medical Sciences, Edapally on 21st July.
- A talk on ***Karkidaka Kanji*** (Ayurvedic medicinal porridge preparation), demonstration of its preparation and distribution of the *Marunnu Kanji* by Shri Mahesh Mangattu from *Thapovanam* on 3rd August.
- **Onam celebrations 2004:** Staff members welcomed Onam by laying *Athapookalam* on 20th August. Pookalam competition was held on 24th in which eight teams participated. The Maintenance Section, SEETTD Division alongwith Personal & Co-ordination Section and the Stores & Bill Section won the First, Second and Third prizes respectively.
- The Institute won the **Third prize** in the *Pookalam* competition organized by Central Government Employees Co-ordination Committee at the Central Excise Office, Ernakulam on 25th August.

Announcement

Winter School on
Recent Advances in Mariculture of Molluscs

A 21-day training course designed to transfer the latest technologies in molluscan mariculture, will be conducted by the CMFR Institute at its Headquarters in Kochi from 11th to 31st January 2005. The Winter School with an intake capacity of 25 participants is funded by the Indian Council of Agricultural Research.

Scientists, researchers and teachers in the field of Aquaculture, Fisheries (inland, brackish and marine) and Extension having more than 2 years experience and who possess a Masters or Docotoral degree are eligible to apply in the prescribed format.

Address for correspondence: Dr. K.K. Appukuttan, Director,
Winter School on RAMM,
CMFRI, Kochi – 682 018.

PERSONALIA

Guests

Headquarters

Mr. Sanjay Nandan, IAS, Commissioner of Fisheries, Gujarat.

Dr. S. C. Mukherjee, Director, CIFE, Mumbai.

Dr. S.L.Mehta, ITD, PIU-NATP, KAB, Pusa, New Delhi.

Dr. R. Parshad, ADG (Agri. Extension), ICAR, New Delhi.

Dr. Yugraj Singh Yadava, Member Secretary, Aquaculture Authority, Ministry of Agriculture, Govt. of India.

Visakhatpatnam Regional Centre

Dr. N. Nageswara Rao, District Collector, Srikakulam, Andhra Pradesh.

Tuticorin ResearchCentre

Dr. S. Ayyappan, DDG (Fy.), ICAR, New Delhi.

Dr. V.R. Chitranshi, ADG (In. Fy.), ICAR, New Delhi.

Dr. Edison, Director, AED, CTCRI, Trivandrum.

Minicoy Research Centre

Dr. P.P. Koya, Hon'ble Member of Parliament.

Shri. L.G. Ibrahim Manikfan, Chairperson, Minicoy Dweep Panchayath.

Programme Participation

Prof. (Dr.) Mohan Joseph Modayil, Director

ICAR Institute's Directors' Conference at NASC Complex, New Delhi (14-16 July)

Seminar on Sustainable Fisheries Development – Focus on Andhra Pradesh organized by Society of Fisheries Technologists and CIFT at Visakhaptnam (23 July)

National Coastal Regulation Zone Meeting under the chairmanship of Prof. (Dr.) M.S. Swaminathan, Swaminathan Research Foundation, Chennai (30 July)

ICAR Fisheries Director's Meeting and discussion on Perspective Plan Document at ICAR, KAB, New Delhi (10 August)

Meeting at the Fisheries College, Tuticorin alongwith DDG(Fy.), ICAR, New Delhi (10 September)

Planning meeting of MRAG-DFID Fisheries Management Science Programme at Fisheries College, Mangalore (18-19 September)

First Inter-face meeting on Aquaculture held at CIFA, Bhubaneshwar (27 and 28 Sept).

Dr. M. Srinath, Principal Scientist & Head, Fishery Resources Assessment Division

Training cum workshop held at Fisheries College, Mangalore on 'Fish Stock Assessment Tools' conducted jointly by the Fisheries College, Mangalore and DFID, UK (20-24 September)

First Meeting of the Technical Monitoring Committee for the centrally sponsored scheme on Strengthening of Database and Information Networking for the Fisheries Sector held at Indian Agriculture Statistics Research Institute, Pusa, New Delhi (12-13 August)

Dr. M. Rajagopalan, Principal Scientist & Head, Fishery Environment Management Division

Conducted Second Review meeting of the DOD funded project on 'Studies on marine mammals' at CMFRI, Cochin (9-11 August)

Task Force Meeting on Resource Augmentation Areas for Conservation of Wildlife outside the Protected Areas organized by MoE&F, Govt. of India at New Delhi (24 September)

Dr. R. Sathiadhas, Principal Scientist & Head, Socio-Economic Evaluation and Technology Transfer Division

Inter Media Publicity Co-ordination Committee Meeting at Kerala Agricultural University, Vazhuthanad, Trivandrum (18 August)

Dr. R. Sathiadhas, Principal Scientist and **Shri K.P. Saidkoya,** Scientist (SG) & Scientist-in-Charge, Minicoy Research Centre

Sensitization Training Workshop (PIMSNET) under coastal Agroecosystem Directorate organized by CTCRI, Trivandrum (8-9 July)

Dr. L. Krishnan, Principal Scientist

First Meeting of the Task Force on Biotechnology Based Programmes for SC/ST and Rural Population held at Delhi (26-28 August)

Dr. D. Prema, Senior Scientist

Meeting convened by DDG (Fy.) in connection with the review of ICAR AP Cess Network Project on 'National Risk Assessment Programme for Fish & Fish Products for Domestic and International Market' at New Delhi (20th July)

Dr. P. Kaladharan, Senior Scientist

Training programme on 'Prioritization Techniques in Fisheries Research' at NAARM, Hyderabad (5-11 August)

Dr. V.P. Vipin Kumar Scientist (SS)

ATIC National Review Meeting and presented the progress report of CMFRI, ATIC Kerala Agricultural University, Thrissur (6-8 August)

Dr. A.P. Lipton, Principal Scientist and **Dr. (Smt.) Imelda Joseph**, Senior Scientist

Meeting on Microbiology in Agriculture convened by DDG (Fy.), ICAR at Krishi Anusandhan Bhavan-II, Fisheries Division for providing inputs for formulation of a programme on 'Microbes in Fisheries' – based on a mission oriented mega project on 'Microbiology in Agriculture' of ICAR (9 September)

Dr. V.V. Singh, Senior Scientist

Course Writer's Workshop for laboratory course in Coastal Aquaculture at School of Sciences, Indira Gandhi National Open University, New Delhi (12 –14 August)

Dr. A.C.C. Victor, Principal Scientist & Scientist-in-Charge, Tuticorin Research Centre

Seminar on 'Impact on quality of life by Department of Atomic Energy' as a part of their Golden Jubilee celebrations held at HWP, Tuticorin (2 July)

Dr. A.C.C. Victor, Principal Scientist and **Shri M. Chellappa**, Technical Officer

TOLIC meeting held at Bharat Petroleum Corp. Ltd., Tuticorin (13 July)

Training course on 'Decision Makers' at IIRS, Dehradun, Uttaranchal (21-24 September)

Dr. H. Mohamad Kasim, Principal Scientist & Scientist-in-Charge, Madras Research Centre

Workshop on Launching of the project on 'Genetic improvement of *Penaeus*

monodon (Tiger shrimp) through selective breeding for growth and white spot disease resistance' at CIBA (4-5 July)

27th Tamil Nadu State Fisheries Research Council Meeting at Department of Veterinary & Animal Sciences, Chennai (12 July)

Second Meeting of Task Force Committee on Fisheries Development Mission at the Chambers of the Secretary to Government, Animal Husbandry and Fisheries Department, Chennai (2 August)

XV Meeting of consultative group for Chennai base of Fishery Survey of India at FSI, Chennai (9 September)

Dr. E. Vivekanandan, Principal Scientist

National Workshop on 'Fishery Harbours – current status and management concerns' organized by Protshahan at Kochi (24 & 25 June)

First meeting of the Planning Commission as a Member for formulating Aquarium Policy for Government of Tamil Nadu at Chennai (24 May)

Dr. G. Syda Rao, Principal Scientist & Scientist-in-Charge, Visakhapatnam Regional Centre, **Dr. G. Maheswarudu,** Senior Scientist and **Shri K. Vijayakumaran,** Scientist (SG) **Dr. R. Narayanakumar,** Senior Scientist and Scientist-in-Charge, Kakinada Research Centre

Seminar on 'Sustainable Fisheries Development: Focus on Andhra Pradesh at Central Institute of Fisheries Technology, Vishakhapatnam (23 July)

Shri K. Vijayakumaran, Scientist (SG)

International Workshop on 'Enabling better management of fisheries conflicts' organized by *Mitraniketan*, Krishi Vigyan Kendra at Thiruvananthapurum (6-7 July)

Training Workshop on 'How to develop a winning proposal' at National Academy of Agricultural Research Management, Hyderabad (17-21 August)

Dr. G. Maheswarudu, Senior Scientist

Project launching workshop on 'Genetic improvement of *Penaeus monodon* through selective breeding for growth and white spot disease resistance' under Indo Norwegian programme of Institutional co-operation at CIBA, Chennai (4 – 5 July)

Dr. A.K.V. Nasser, Senior Scientist

Training on networking and ERNT connectivity at NAARM, Hyderabad (9-13 August)

Dr. R. Narayanakumar, Senior Scientist

ICAR sponsored course on 'Globalization of Dairy Industry – Application of Forecasting Techniques' at University of Agricultural Science, Hebbal, Bangalore (18-27 August)

Dr. K. Asokakumaran Unnithan, Senior Scientist

Scientific Advisory Committee of KVK of CTRI, Rajahmundry at Central Tobacco Research Institute, Rajahmundry (15 September)

Dr. R. Narayanakumar and **Dr. K. Asokakumaran Unnithan,** Senior Scientists

Interaction Meeting on FAO assisted project on Shrimp Health Management in Andhra Pradesh organized by State Institute of Fisheries Technology, Kakinada (16 September).

Shri Joe K. Kizhakudan, Scientist (SS)

DAC-DAH&D-DARE Interface on Aquaculture at CIFA, Bhubaneshwar, Orissa (27-28 September)

Dr. P.P. Manoj Kumar, Scientist (SS)

Workshop on 'The role of NGO's in formation and strengthening of fish workers movement in Kerala, particularly in Malabar Coasts' organized by MCITRA, Calicut (6 September)

Shri B. Suresh Kumar, Technical Officer (Agriculture)

Inauguration of the Panakkapadam Swasreya Sangham Nursery at Karthedam and presented a paper on 'Vermi compost making' (19 June).

Appointments

Name S/Shri	Designation	Centre	w.e.f
Ms. Annies Mary K.	LDC	HQ, Kochi	29.7.2004
Ms. Sreedevi M. R.	LDC	HQ, Kochi	4.8.2004
Laxman Shankar Korabu	Skin Driver T-1	Mandapam Regl. C.	5.6.2004
I. Santhosi	Field Assistant (T-1)	Mandapam Regl. C.	5.8.2004
Retirements			
R. Alagan	SSG-IV (Fieldman)	Mandapam Regl.C.	30-6-2004
Balakrishna Naik	Assistant Administrative Officer	Mangalore R.C.	31-8-2004
V.V. Lakshminarayanan	Assistant Administrative Officer	HQ, Kochi	30-9-2004
V.C. Antony	UDC	HQ, Kochi	30-9-2004
Voluntary Retirement			
N. Leela	SSG - IV (Daftry)	HQ, Kochi	3.08.2004
Transfers			
Dr. M. Rajamani	Principal Scientist	Tuticorin R.C.	Mandapam Regl.C.
Dr. G. Gopakumar	Principal Scientist	Vizhinjam R.C.	Mandapam Regl.C
Smt. Grace Mathew	Principal Scientist	HQ, Kochi	Vizhinjam R.C.
Dr. D. Noble	Senior Scientist	HQ, Kochi	Vizhinjam R.C.
Dr. (Smt.) Shoji Joseph	Scientist (SS)	HQ, Kochi	Calicut R.C.
Dr. P.K. Asokan	Scientist (SG)	Calicut R.C.	Veraval Regl.C.
Smt. Sujitha Thomas	Scientist	Calicut R.C.	Mangalore R.C.
Smt. Rekhadevi Chakraborty	Scientist	Veraval Regl. C.	HQ, Kochi
Sapan Kumar Ghosh	Sr. Technical Asst. (T-4)	Contai F.C.	Visakhapatnam Regl.C.
A. Srinivasan	Sr. Technical Asst. (T-4)	Cuddalore F.C.	Madras R.C.
M. Bose	Sr. Technical Asst. (T-4)	Cuddalore F.C.	Tuticorin R.C
Smt. V.K. Janaki	Sr. Technical Asst. (T-4)	HQ, Kochi	Calicut R.C.
P. Palani	Technical Asst. (T-3)	Pattukottai F.C.	Mandapam Regl.C.
Jose Kingsly	Technical Asst. (T-3)	Visakhapatnam Regl.C.	Vizhinjam R.C.
C. Unnikrishnan	Technical Asst. (T-3)	Vizhinjam R.C.	HQ, Kochi
M. Reghunathan	Assistant	Vizhinjam R.C.	Tuticorin R.C.
V.P. Benziger	Deckhand (T-3)	Vizhinjam R.C.	HQ, Kochi
P. Hillari	Deckhand (T-3)	Vizhinjam R.C.	HQ, Kochi
A. Anasukoya	Jr. Technical Asst. (T-2)	Minicoy R.C.	Calicut R.C.
K.M. David	Artist (T-1)	Mandapam Regl.C.	HQ, Kochi

Promotions

Name	Centre	w.e.f
Scientists (Senior Scale) as Senior Scientists		
Dr. Imelda Joseph	HQ, Kochi	21-1-2001
Dr. Josileen Jose	HQ, Kochi	14-9-2002
Dr. E.M. Abdussamad	Tuticorin Res. C.	6-10-2002
Scientists as Scientiests (Senior Scale)		
Dr. C. Ramachandran	HQ, Kochi	2-6-2002
Shri Joe K. Kizhakudan	Madras R. C.	21-6-2002
Smt. P.S. Asha	Tuticorin R.C.	21-6-2002
Senior Technical Assistants, (T-4) as Technical Officers (T-5)		
Shri P. S. Anilkumar	HQ, Kochi	30.11.2003
Technical Assistants (T-3) as Senior Technical Assistants (T-4)		
Shri Mendonza Xavier	Mandapam Regl. C.	22.5.2004
Shri Udaya V. Arghekar	Mangalore R.C.	1.7.2003
Shri Sijo Paul	Kollam F. C.	3.8.2003
Smt. Jenni B.	HQ, Kochi	6.8.2003
Smt. S. Gomathy	Madras R. C.	23.9.2003
Junior Technical Assistants (T-2) as Technical Assistants (T-3)		
Shri A. Palanichamy	Mandapam Regl. C.	31.12.2003
Supporting Staff in Grade I to SS Grade II		
Smt. V.S. Savithri	HQ, Kochi	26-6-2004
Smt. S. Seethalakshmi	HQ, Kochi	26-6-2004
Shri M. Saravana Kumar	Mandapam Regl. C.	29-6-2004
Supporting Staff in Grade II to SS Grade III		
Smt. Somi M. Harijan	Karwar R. C.	5-8-2004
Supporting Staff in Grade III to SS Grade IV		
Shri M. Athimoolam	Mandapam Regl. C.	7-8-2004
Shri R. Sonaimuthu	Mandapam Regl. C.	6-8-2004

Name	Centre	w.e.f
Dr. T.V. Sathianandan(SG)	Madras R. C.	5-4-2002
Shri P.K. Asokan	Calicut R. C.	27-7-2000
Smt. P.T. Sarada	Calicut R. C.	27-7-2002
Shri Boby Ignatius	Mandapam Reg. C.	28-6-2002
Smt. U. Ganga	HQ, Kochi	5-7-2002
Dr. (Smt.) Miriam Paul	Mumbai R. C.	5-7-2002
Dr. V.P. Vipinkumar	HQ, Kochi	16-11-2002
Shri D. Sundararajan	Tuticorin R. C.	9.12.2003
Shri G. Srinivasan	Madras R. C.	1.1.2004
Smt. K. P. Salini	HQ, Kochi	1.1.2004
Shri K. C. Pandurangachar	Karwar R. C.	1.1.2004
Shri Ganesh Bhatkal	Mangalore R. C.	1.1.2004
Shri Jose Kingsly	Vizhinjam R. C.	6.1.2004
Shri K. K. Suresh	Vizhinjam R. C.	1.2.2004
Shri U. Jeyaram	Tuticorin R. C.	3.7.2003
Shri K. Solaman	HQ, Kochi	1.1.2004
Smt. Pramila H. Borkar	Karwar R. C.	1-7-2004
Shri Rajendra D. Hulsar	Karwar R. C.	2-7-2004
Smt. P.K. Sujatha	HQ, Kochi	26-8-2004
Shri S. Murugan	Mandapam Regl. C.	21-9-2004
Supporting Staff in Grade III to LDC		
Shri W. Sathyawan Neelraj	HQ, Kochi	30-6-2004

The following Ministerial Staff have been promoted to the next higher grades

Name	Designation	Promoted Post	Centre	w.e.f
Smt. K. Vijayalakshmi	Assistant	Assistant Administrative Officer	HQ, Kochi	20-8-2004
Shri Thomas Joy	Assistant	Junior Accounts Officer	HQ, Kochi	22-9-2004
Smt. K. Latha	LDC	UDC	Vizhinjam R. C.	23-6-2004

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