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"KARSHAKA SIROMANI" NATIONAL AWARD TO MUSSEL FARMER



Shri. G.S. Gul Mohamed, mussel farmer from Kerala who popularised mussel mariculture utilising CMFRI technology receiving the award from Hon'ble Union Minister for Agriculture Shri. Ajit Singh

Shri G.S. Gul Mohamed, a mussel farmer of Padanna village in Kasaragod District was awarded the prestigious "**Karshaka Siromani**" National Award for the year 2002, constituted by the Ministry of Agriculture, Govt. of India in the name of late Prime Minister Shri Choudhary Charan Singh at New Delhi on 22nd December by the Union Minister for Agriculture, Shri Ajit Singh. This is the first time that such a prestigious national award is given to a Keralite farmer from fisheries sector.

Shri Gul Mohamed started mussel farming in estuaries from 1996, passing successively through prawn farming, crab culture and culture of edible oyster utilizing the technology developed by CMFR Institute. When faced with problems in the export of mussels, Shri Gul Mohamed made efforts to shuck

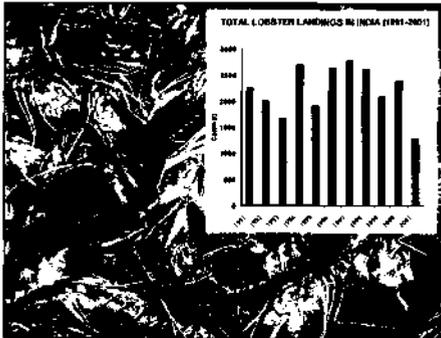
the complete farm produced mussel and market the meat in the internal market with technical guidance from CMFRI, to save the farmers. This strategy also provided employment to hundreds of rural women. The credit for developing an internal marketing system for the farm produced mussel and propagation of rope culture of mussel in the backwaters at North Malabar goes to Shri Gul Mohamed. He has also made a mark in land based agriculture avocations adopting improved technologies in rubber, pepper, paddy and cashew.

Shri Gul Mohamed is worthy of the "**Karshaka Siromani**" Award for his contributions to the overall development of aquaculture especially mussel culture and for the improvement he brought out in the socio-economic standard of the coastal fisherfolk in North Malabar.

RESEARCH HIGHLIGHTS

Sharp Decline in Lobster Landings

Lobster landings in India, which had been fluctuating around 2,000 t for the past several years declined to an alarming level of 1,389 t in 2001. However, this low volume, high value resource



Deep sea Lobster *Puerulus Sewelli*

fetches annually nearly rupees 50 crore in foreign exchange. The average size currently landed is smaller than what has been caught nearly ten years back. The current demand in the international market is for live lobsters and Asian market demands smaller sized ones. Egg bearing lobsters form a high percentage of the commercial catch and the gill nets and trammel nets which have replaced lobster traps, catch more of juvenile lobsters. High demand in the international market and unrestricted fishing has resulted in intensive and indiscriminate exploitation of lobsters, which if unchecked, can lead to an irrevocable state of depletion.

On the basis of research information collected on the lobster fishery resources for the past 25 years, the CMFR Institute evaluated the status of lobster fishery and brought out a document on 'Lobster Management Issues and Conservation Measures'. Several measures were suggested for the sustainable exploitation of lobsters which will ultimately benefit the fishing community and the export industry. A minimum legal size for capture and export of four commercial species of lobsters was suggested in order to protect the juveniles and the maturing lobsters. Ban on operation of trammel net, complete prohibition of fishing and export of egg bearing lobsters, education of fishermen to create an awareness on lobster conservation and estab-

lishment of lobster sanctuaries are the measures suggested for effective management and conservation of the resource.

Community participation in lobster resource conservation

Enforcement of legal measures alone may not bring the required impact in conservation of lobsters. Participation of the fishing community in resource conservation may yield better results as they are ultimately the beneficiaries and managers of the fishery. Realising the importance of the issue, the CMFR Institute proposed a project on 'Participatory management and conservation of lobster resources', which was approved and funded by the Marine Products Export Development Authority. The message of conservation will be disseminated among the coastal fishing community, initially on the southwest and east coasts of India and later on the northwest coast. Implementation of the first phase of the project was inaugurated on 22nd November at Khadiyapatnam fishing village in Kanyakumari District, Tamil Nadu.



The project proposes to educate and create awareness among the fishermen on the consequences of fishing the undersized and egg bearing lobsters. The message of conservation will be disseminated through (i) extensive publicity by pasting wall posters and stickers in the lobster fishing villages, (ii) video film shows, (iii) conducting public meetings and cultural programmes, (iv) organizing regional workshops, (v) live demonstration of lobster breeding and larvae release and (vi) tag-release of egg bearing lobsters involving the fishermen for convincing and persuading them to release

the lobster voluntarily back into the sea in the future. The project also intends to popularise CIFT fabricated metal traps for lobster fishing in order to slowly wean away the fishermen from using trammel and gill nets for fishing lobsters. Consistent efforts through education, awareness building and persuasion along with enforcement of legal measures to restrict exploitation and export may bring in changes in the thinking of fishermen. Cooperation from traders and exporters is also essential for effective implementation of these conservation measures.

Diagnostic kit developed for white spot disease

Cost-effective, rapid and sensitive "Duplex PCR diagnostic kit" for the detection of White Spot Syndrome Virus (WSSV) causing the dreadful white spot disease in shrimps has been developed at the Institute. Duplex PCR is reliable compared to the nested PCR kits which are currently being used since different regions of the viral genome are amplified and checked simultaneously.

Development of technology for mabe pearls

Mabe pearl inserts (image and half pearls) were tried in *P. fucata* for the first time and within 2 months mabe pearls were produced. The procedure is being standardised.



Mabe pearl image produced in *Pinctada fucata* at Port Kollam

Technology developed for diagnostic marking of groupers

Using multivariate analysis and Random Amplified Polymorphic DNA (RAPD) fingerprinting, taxonomy of seven important grouper species (*Epinephelus diacanthus*, *E. areolatus*, *E. chlorostigma*,

E. bleekeri, *E. coioides*, *E. tauvina* and *E. malabaricus*) was ratified. The species-diagnostic DNA markers developed would be helpful in identifying grouper species in commercial catches and culture systems.

Size improvement in cultured pearls achieved

Pearl production using larger nucleus (4-6 mm) has been attempted along the west coast (Port Kollam) and more than eighty 7-8 mm pearls were produced in *Pinctada fucata* for the first time.

Seed production of mud crab achieved

Captive breeding and small scale seed production of *Scylla tranquebarica* have been achieved. Experiments to improve survival are progressing.

Success in captive spawning of groupers

Natural spawning of groupers *Epinephelus merra*, *E. polyphekadion* and *E. tauvina* was achieved under hatchery condition at the Mandapam Regional Centre of the Institute. About 3 lakhs larvae of *E. merra* and *E. polyphekadion* which hatched were

reared upto a period of 20 and 10 days respectively.

Unusual landing of pearl oyster

Dozens of boats engaged in bottom set gill net fishing (*Chinki valai*) brought pearl oysters (*Pinctada fucata*) numbering 200-5,000 on each occasion when they fished at 10-15 F depth in the vicinity of pearl banks at Tuticorin and Tharuvaikulam landing centres.

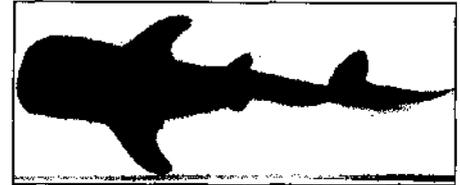
Unusual landing of oil sardine

Following an all time peak abundance of oil sardine in the year 2000 along Kerala coast (3.67 lakh tonnes), juveniles (80-120 mm) have been constituting a regular fishery by ring seines since July 2002. Juvenile fishes entering Cochin backwaters are caught by cast nets and dip nets.

The glut situation has resulted in price reduction and a major part of the catch is beach dried. The dried product is regularly transported to Andhra Pradesh for converting to poultry feed and fish meal.

Smallest whale shark recorded

Juvenile of the whale shark, *Rhincodon*



Juvenile whale shark *Rhincodon typus* Smith caught at Vizhinjam

typus Smith, the largest living fish (18 m TL) in the oceans and a species under threat included in the IUCN Red List (2000) was entangled in the gill net set for sardines by about 0600 hrs on 26 December at Vizhinjam fish landing centre. Attempts were made at the Vizhinjam Research Centre of the Institute to save the smallest of the whale shark hitherto caught from Indian waters but the fish could be kept alive only for 13 hours.

IVLP - paving the path to prosperity

Under the Institute Village Link Programme implemented with technical guidance from the Institute at Elankunnappuzha village of Vypeen Island, Kochi, a rich harvest of mullet (*Mugil cephalus*) and milk fish (*Chanos chanos*) reaped a net profit of Rs. 4,43,352/ha.

Training for practicing farmers and rural youth

Krishi Vigyan Kendra of the Institute at Narakkal imparted training to 1,678 participants by conducting 81 training courses. The number of courses and beneficiaries are as follows : Fisheries: 16 - 332; Agriculture: 21 - 424; Home Science: 44 - 922.

KVK organised 22 collaborative training courses for the cultivation of jasmine (4), mushroom (2), vegetables (2) and vanilla (1) in association with Krishi Bhavans at Eloor, Malippuram and Edavanakkad and for the cultivation of medicinal plant (1) with Tapovanam, for food preservation (7) including preparation of shrimp and fish pickles and in the preparation of cleaning powder (5) with the Grama Panchayats of Kuzhuppilly, Elankunnappuzha and Vypeen Blocks.

In the demonstration programmes on (i) Improved traditional shrimp farming system (ii) Performance of tissue culture banana under rain fed condi-

tion and (iii) Integrated nutrient management in coconut trees, the following interventions were made: supply of (i) *Penaeus monodon* seeds, (ii) tissue culture banana seedlings and (iii) fertilizer.

A de-worming campaign for poultry was arranged in the coastal village of Narakkal on 27 July for 180 birds belonging to 20 households.

Training for fisherfolk

Molluscan Fisheries Division conducted two training programmes sponsored by the M.S. Swaminathan Research Foundation on the important aspects of **Marine Pearl Culture** through lecture and practical sessions. 30 fisherfolk of Mundalmunai village, Pamban and 16 villagers of Ramanathapuram District participated in the trainings held at the Mandapam Regional Centre of the Institute during 5-12 July and 18-24 December respectively.

SEETT Division of CMFRI and KVK, Narakkal organised a Demonstration -

cum - Training Campaign on **Aqua farming** for 38 females and 4 males of Kudumbasree units from 21 to 26 November at Panambukad. Subject specialists imparted training on farming of shrimp, crab and fish, culture of ornamental fish, preparation of shrimp feed and value added products from shrimp and fish. Classes were conducted on women empowerment through self help groups, credit and saving schemes for fisherfolk, sustainable development and women participation.

Trainings for nominated Government and non-Government officials

Six short-term courses were organised by the Trainer's Training Centre of the Institute on the following topics:

Ornamental fish culture - Three courses of 6 days duration for 39 entrepreneurs in the breeding, rearing and management practices.

Fish processing - A six day programme in which 20 executives of Kerala State Fisheries Department were trained in post-harvest handling of fish including freezing technology, processing and packing of fish and fishery products, preparation of value added fishery products and Hazard Analysis at Critical Control Points (HACCP) concepts in the seafood industry.

Fish diseases and their management - An eight day course imparted training to 5 officials from MPEDA on

fish and shellfish diseases including diagnosis, isolation of bacterial pathogens, identification of parasites, immunological analysis, tissue processing for EM studies and in the analyses of haemolymph and blood samples of tissue, water, feed and soil samples.

Mariculture - A six day course for 19 managerial staff of NABARD on hatchery techniques for bivalves, farming of mussels and edible oysters, pearl culture, seaweed culture, mud crab culture, product processing and utilization, aquatic

pollution and remedial measures.

Training imparted to Scientists

The Division of Physiology, Nutrition and Pathology organised and imparted three week training to twenty six personnel from 6 ICAR Institutes and teachers from 5 Agricultural Universities on diagnosis and management of fish and shellfish diseases including the latest developments in molecular and immunodiagnostic tools. The training was sponsored by the Education Division of ICAR.

Revenue generated through ATIC	
	Amount (Rs.)
Sale of algal inoculum/ zooplankton	22.850
Electron microscopic work	7.400
PCR Test	7.000
Feed composition/ water analysis	2.925
Shell identification	750
Sale of pearl	1.258
Sale of publications	2.525
Total	44,708

Consultancy projects undertaken during July to December 2002		
Client	Title of projects	Amount (Rs.)
Rajiv Gandhi Centre for Aquaculture, Sirkali	Farming & Fattening of Spiny Lobsters (Continuing)	2,94,000
Kudremukh Iron Ore Co.Ltd, Mangalore	Monitoring hydrobiological conditions at Bhadra River (Phase VI).	4,25,000
M/s. GMRPSEG Operations Pvt.Ltd, Chennai	Monitoring hydrobiological conditions in the Arabian Sea off Thannirbavi	3,00,000
Department of Forest & Wildlife, Government of Gujarat	Rapid Impact Assessment Study in Marine National Park, Gulf of Kutch, and Gujarat	14,45,460
Mangalore Refinery & Petrochemicals Ltd, Mangalore	Monitoring environmental conditions in the Arabian Sea off Chithrapur (Phase VII)	6,64,000
	Total	31,28,460

Exhibitions

- CMFRI put up a stall at the exhibition organised in connection with the Second Indian Fisheries Science Congress from 23 to 25 October at Central Institute of Agricultural En-

gineering, Bhopal. Exhibits highlighted the efforts taken by the Institute in marine sector and the fisherfolk participation in utilizing the Institute technologies.

- The Institute participated in the exhibition organised in connection with Sixth Indian Fisheries Forum 'Fishcovery' from 17 to 20 December at CIFE, Mumbai.

Ninth Meeting of the IJSC

The newly elected representatives of the Institute Joint Staff Council and the representatives from the official side under the Chairmanship of Director, Dr. Mohan Joseph Modayil held its first meeting on the 7th September at Headquarters.

Divisional Seminars

Seminars were conducted at the Headquarters on various subjects as indicated:

- Present status of penaeid prawn fishery of India - Dr. G. Nandakumar

- Growth efficiency studies in shrimp when exposed to heavy metals - Dr. Mary K. Manisseri
- Perspectives in Marine Biotechnology - Dr. R. Paul Raj
- Prospects of Tuna fishery in India - Dr. N.G.K. Pillai

In the discussions that followed, scientists, technical staff and students actively participated and the suggestions which emerged recorded for identifying prospective researchable issues.

Under the auspices of the Marine Biological Association of India, Dr. Akinichi Hozomi from KOBE, Japan gave a talk on 'El-Nino and Global Warming' based on his studies which is being continued in India.

Seminars for Farmers

KVK, Narakkal organised seminars on the following topics:

- Vegetable cultivation in association with Krishi Bhavan, Eloor for 70 farmers and farmwomen

- Mushroom cultivation for self employment in association with gramma panchayat, Eloor for 102 rural women
- Empowerment of rural women by starting various self employment income generating units in association with Kudumbashree unit of Narakkal for 20 women.

Network project proposed on Impacts of Marine Fishing to Climate Change

In continuation of the concept note on Marine Fishing presented by CMFRI,

Director, Dr. Mohan Joseph Modayil at the brainstorming session on 'Impacts, Adaptation and Vulnerability of Indian Agriculture to Climate Change' at IARI, New Delhi and the presentation made by Dr. M. Rajagopalan, Head, FEM Division of CMFRI at the Workshop at CRIDA, Hyderabad on the 'Impacts of Marine Fishing to Climate Change' a multidisciplinary project is proposed to be implemented by 15 ICAR Research Institutes.

The Fishery Environment Management Division of the Institute will carry

out the 5 year project for which a sum of Rs. 67 lakhs will be available under the plan scheme of ICAR.

Committees Reconstituted

- Management Committee of CMFRI Departmental Canteen was reconstituted with Shri A. Nandakumar, Technical Officer (T-6) as Chairman
- Women's Cell was reconstituted with Dr. (Mrs.) Mary K. Manissery, Principal Scientist as Chairperson.

NEW HEIGHTS

New Sponsored Projects

- 'Rapid Impact Assessment Study in Marine National Park and Sanctuary, Gulf of Kutch, Gujarat' for the Gujarat State Government with a consultancy fee of Rs. 14.45 lakhs is to be executed by Fishery Environment Management Division of the Institute with Dr. M. Rajagopalan, Principal Scientist as the Principal Investigator. The study will furnish information on the impact of environment in relation to existing/proposed pipeline and Special Economic Zone to be set up in Jam Nagar District.
- 'Participatory Management and Conservation of Lobster Resources Along the Southwest Coast of India' sponsored by MPEDA with a total outlay of Rs.19 lakhs is to be implemented initially in the Kanyakumari District,

Tamil Nadu and later in the mechanised trawling centres located in Maharashtra and Gujarat with Dr. E.V. Radhakrishnan as the Principal Investigator.

Achievers

- Ms. Sandhya Sukumaran, Ph.D. scholar in Mariculture secured the First rank in the Agricultural Research Service Examination (2001-2002) in the discipline 'Fish and Fisheries Science' conducted by ASRB, New Delhi.
- Dr. Ananth P. Natarajan, Senior Research Fellow of the Socio-Economic Evaluation and Technology Transfer Division of the Institute, was awarded 'Young Scientist Award' by the Zoological Society of India. The award was based on his oral presentation of the paper entitled "A study on the sociological base for capture fisheries management" at the 13th All India Con-

gress of Zoology held at Bangalore. The award and gold medal sponsored by the Forest Ecology and Environment Department, Govt. of Karnataka was presented by the Minister for Forest, Shri K.H. Ranganath on 31 December.

- Shri G. Subramanya Bhat, T-4 of Mangalore Research Centre secured first prize in Hindi noting, third prize in drafting and third prize in translation competition organised by the Mangalore Town Official Language Implementation Committee during September 2002.

Winners of the Inter-Institutional ICAR sports meet:

- Shri Joseph Mathew - I prize in 100 m & 200 m dash
- Shri A.K. Shaji - I prize in Javelin
- Shri V.A. Narayanankutty and team - I prize in Football.

ACADEMIC NEWS

- Ten students were awarded M.F.Sc. degree in Mariculture by the Central Institute of Fisheries Education (Deemed university) during September 2002.
- **Ms. Smitha Gopal**, was awarded the Hiraral Choudhary Gold medal by the Central Institute of Fisheries Education for securing first rank in M.F.Sc. Mariculture for the period 1999-2001.
- **Ms. Bhavani, C.N.** was awarded Gold medal by the Central Institute of Fisheries Education for securing first rank in M.F.Sc. Mariculture for the period 2000-2002.

- **Assessment for Accreditation of Academic Programmes** (M.F.Sc. & Ph.D. Mariculture): The Peer Review Team constituted by the Director General, ICAR with Dr. K.V. Devaraj, Former Vice-Chancellor, University of Agricultural Sciences as Chairman; Dr. M. Babu Rao, Retd. Associate Dean, ANGRAU; Dr. Sunderraj, Dean, Fisheries College as Members and Dr. N.L. Maurya, ADG, ICAR as Member Secretary visited CMFRI, Cochin on 12th September.
- **Review of Postgraduate programmes in Mariculture :**
The Director, CMFRI convened a

meeting of the Heads of Divisions, Faculty Members and M.F.Sc. and Ph.D. students of PGPM on 16th July. In his address, Director commended the achievements in post-graduate education at CMFRI since its inception in 1980.

- **Computer facility for the exclusive use of PGPM students.** Three computers have been installed in November for the exclusive use of Ph.D. and M.F.Sc. Mariculture students.
- Four Research Scholars joined the Ph.D Mariculture Programme in Cochin.

• **Ph.D. Awards**

Scholar	Guide	Title of the Thesis
CENTRAL INSTITUTE OF FISHERIES EDUCATION (Deemed University)		
Vineetha Aravind	Dr.G. Maheswarudu Sr. Scientist	An evaluation of the intertidal oligochaete <i>Pontodrilus bermudensis</i> as dietary supplement for stimulation of reproduction in <i>Penaeus semisulcatus</i> de Haan
Anil Kumar, P.K.	Dr.E.Vivekanandan Principal Scientist	Biochemical studies and energetics of the spiny lobster <i>Panulirus homarus</i> (Linnaeus 1758)
Sunil Kumar, P.	Dr. P.A. Thomas Principal Scientist (Rtd.)	Boring sponge infestation on the mussel <i>Perna indica</i> Kuriakose and Nair 1976 from the South West Coast of India
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY		
Josileen Jose Scientist (SS)	Dr. N.G. Menon Principal Scientist	On the fishery, biology and hatchery technology of the portunid crab <i>Portunus pelagicus</i>
E.M. Abdussamad Scientist (SS)	Dr. N.G. Menon Principal Scientist	Population characteristics of prawns in natural and selective stocking systems
MANONMANIUM SUNDARANAR UNIVERSITY		
A.N. Rajan	Dr. A.P. Lipton Principal Scientist	Studies on ulcerative disease in <i>Etroplus maculatus</i> caused by <i>Vibrio</i> species and its management using bacteria and marine natural products
J. Selvin	Dr. A.P. Lipton Principal Scientist	Shrimp disease management using bioactive secondary metabolites from marine organisms
UNIVERSITY OF MADRAS		
R. Soundararajan	Dr.E. Vivekanandan Principal Scientist	Studies on marine bivalves - some ecological and biological aspects of <i>Crassostrea rivularis</i> (Gould) and <i>Saccostrea cucullata</i> (Born) (Family: Ostreidae)

Awards won for excellence

The Institute won the **Official Language Rolling Trophy** for the excellent Hindi activities for year 2000-2001 from the Cochin Town Official Language Implementation Committee. The Hindi periodical *Matsyagandha 2000* was adjudged as second among the Hindi periodicals published from Kochi TOLIC.

The Karwar Research Centre of CMFRI won the **Trophy for excellence** from the Karwar Official Language Implementation Committee.

Vizhinjam Research Centre of CMFRI got the sixth prize for the official language implementation activities from Trivandrum TOLIC.

Notification of Office

The Calicut Research Centre of CMFRI was notified under Rule 10(4) of Official Language Rules, 1976 in the official gazette of India for 80% of the staff of the Centre having acquired working knowledge in Hindi.

Committee meeting

57th meeting of the Official Language Implementation Committee of the Institute was held on 6 November. The progress made in the propagation of the

official language at the Institute and outstations was discussed.

Official Language inspection

Official language activities of the Research Centres at Calicut (30 September) and Mangalore (1 October) was inspected by Dr. Mohan Joseph Modayil, Director, at Tuticorin (26 October) by Shri Charles Ekka, Senior Administrative Officer and at Minicoy (11 November) by Dr. L. Krishnan, Principal Scientist.

CMFRI sponsored workshop

A one day Hindi workshop was held at Karwar Research Centre for thirty representatives from member TOLIC offices on 28 November. Shri P. Subba Ramaiah, General Manager, Telephones, chaired.

Computer training

A one day training in *Leap Office* was conducted at the Institute Headquarters for 12 personnel on 20 December. A general awareness about the *Leap Office* programme was imparted and the use of multilingual system and translation dictionary were taught.

Seminar

Dr. Mohan Joseph Modayil, Director presented a paper on "Mariculture in

India - why not increased?" and Dr. M. Srinath, Principal Scientist presented a paper on the topic "Marine fisheries in India - status and issues" in the scientific seminar in Hindi organised by the CIFT, Kochi on 17 August.

Publication released

'*Matsyagandha*', the annual issue of the Institute Hindi publication was released on 21 September.

Hindi week celebrations

Hindi week was celebrated at the Institute from 16 to 21 September at the Institute with the main focus on the functional use of Hindi.

At **Headquarters**, workshops were conducted for 16 scientific, 19 technical and 20 ministerial staff. Five teams participated in the debate competition and over 60 staff members in the question-answer contest '*Vijetha Kauri?*' Work done in Hindi during 2002 was evaluated and cash awards given as incentives. Shri L. Kuriakose, Director of Income Tax gave away the prizes at the valedictory function.

Hindi Day/Week was celebrated in all the Regional/Research Centres of CMFRI with various programmes.

Utharavaditvapura Matsyabandhana Perumaatta Chattom

(Code of Conduct for Responsible Fisheries)
Translation : C. Ramachandran
© FAO 1995; CMFRI 2002



This publication includes the text of the code of conduct for responsible fisheries, background to the origin and elaboration of the code and resolution 4/95 as adopted by the 28th session of the FAO Conference which is the outcome of the Cancun Declaration on 31st October, 1995. This voluntary code contains twelve articles on fishing operations, fisheries management, precautionary approach, aquaculture etc. Each article provides guidelines to the stakeholders for engendering responsible fishing.

The publication is in Demy 1/8 size, 56 pages, laminated soft cover, print in black & white on map litho paper, single colour. Issued free of cost on demand.

Utharavaditvapura Matsyabandhana Perumaatta chattom-

Enthu, Enthunu and Engane

(Code of conduct for Responsible Fisheries :
What? Why? How?)

Translation:

C. Ramachandran and S. Ashaleta
© CMFRI 2002



This book on the code of conduct for responsible fisheries gives a detailed outline on the What? Why and How? of responsible fisheries. Written in simple Malayalam and bolstered with a number of cartoons and illustrations, this booklet is an attempt to create interest and awareness about the importance of the code conduct among the fisherfolk of Kerala.

The publication is in Demy 1/8 size, 23 pages, laminated soft cover, print in colour on imported art paper. Issued free of cost on demand.

Matsyagandha 2001

CMFRI Special Publication No. 73
September 2002
ISSN : 0972-2457
(Publ.) Mohan Joseph Modayil,
Director, CMFRI



Matsyagandha, an annual publication in Hindi link the fishery news with the national stream of agricultural information. *Matsyagandha 2001*, includes 22 papers contributed by experts from fisheries organisations. The publication covers topics on multifaceted aspects including culture techniques, feed formulation; disease management; resource characteristics of selected finfishes; environmental impact studies and human resource development in blue revolution.

The publication is in 1/4 crown size, 88 pages, binding perfect with laminated cover, print in black and white on imported art paper. Issued free of cost on demand.

The Institute celebrated the **Independence Day** on 15th August and the **National Sadbhavana Divas** on 20th August. **Vigilance Awareness Week** was observed from 31 October to 6 November. **Quami Ekta Week** from 18 to 25 November and **Armed Forces Flag Day** on 7 December.

Data processing unit for processing the fishery resources statistics for the maritime areas of east coast functional at Madras Research Centre of CMFRI, Chennai with effect from 1st January 2003.

Marine pearl sales held

A five day (30th July to 3rd August) sale of pearls cultured at the Tuticorin and Mandapam farms was conducted at the Institute Headquarters. Four thousand pearls sold, both stringed and loose in the 3-5 mm size ranges graded A to C (Rs 1,500 - 500/gm), fetched an amount of Rs. 2.19 lakhs.

Marine Research Aquarium opened

A Marine Research Aquarium under the Calicut Research Centre of the Institute was opened on 30th September. The aquarium is established to develop brood stock of the most sought after varieties of ornamental fishes and shell fishes of the reef ecosystem of our country and for their breeding and fry rearing.

The aquarium has 33 tanks between 1.25 and 0.5 ton capacity and a turtle pool of 3 t capacity. More than 200 varieties of fin fishes and shell fishes collected from Lakshadweep islands and along the west and east coasts of India are exhibited in their natural surroundings. The aquarium is open for the public so as to create an awareness about our marine biodiversity.

All Kerala painting competition held

As a part of designing communication tools for responsible fisheries un-

der the World Bank funded National Agricultural Technology Project, a painting competition on 'Responsible Fisheries' was held for students of Fisheries Technical, Vocational Higher Secondary Schools and Fisheries Colleges at the Institute on 6th November. Our Director inaugurated the competition by initiating a **collective painting** on the theme by giving shape to his imagination depicting the plight of a fisherman who hooked the skeleton of a fish while fishing. There was an overwhelming response from the staff members to the participatory painting as evidenced by the multi-faceted contributions on the huge canvas.

The Hon'ble Minister for Fisheries and Tourism, Prof. K.V. Thomas distributed the prizes to the winners and inaugurated an **exhibition** of the paintings done by the forty participants. The theme of the paintings that 'the right to fish has an obligation to do it responsibly' will be used for a state wide campaign on 'Responsible Fisheries'.

Books on Responsible Fisheries released

The Malayalam translation of the 'FAO Code of Conduct for Responsible Fisheries' and a booklet explaining the code in simple language were released by Prof. K.V. Thomas, Hon'ble Minister for Fisheries and Tourism, Govt. of Kerala at a function held at the Institute Headquarters on 2nd December.

Winter School held

The Winter School on Diseases in Mariculture was conducted at the Institute HQ from 7th to 27th November. The course was inaugurated by Dr. Unnikrishnan Nair, Vice Chancellor, CUSAT on 7th November. Director, Dr. Modayil presided over the function and delivered the keynote address. The valedictory function was held on 27th November. Dr. R. Damodaran, Dean, School of Marine Sciences, CUSAT delivered the valedictory address and distributed certificates to the participants. Dr. K.C. George, Principal Scientist was the Course Director.

World Food Day celebrated

With the theme 'Water : Resource of Food Security' the World Food Day was celebrated on 16th October at KVK campus. 55 rural women attended the meeting. Shri C.P. Reymond, Assistant Engineer, PWD (Irrigation), gave a talk on 'Rain water harvesting in coastal areas'.

Kisan Divas celebrated

The Institute celebrated 'Kisan Divas', the birth centenary of former Prime Minister of India late Chowdary Charan Singhji at Krishi Vigyan Kendra campus, Narakkal on 23rd December. Shri

Mohammed Kutty Master, District Panchayat President, Ernakulam inaugurated the function. Ten best fish farmers who have successfully adopted the technologies generated by CMFRI were honoured on the occasion and awards presented by the Director. At an interactive session between the fish farmers and the scientists, the constraints faced by the farmers were identified and an action plan was formulated. An exhibition was also arranged from 17th to 23rd December in connection with *Kisan Sanman week* at KVK, Narakkal for the benefit of farmers and rural youth.

Working time of the Institute Library at Headquarters is rescheduled from 9 AM to 6 PM.

Human Resource Developed

Twenty four scientists at the senior level of the Institute has undergone a training programme 'Research Manager' from 9 through 15 December at the College of Leadership and Human Resources Development at Mangalore for facilitating excellence in effective leadership.

A one month training programme on **Fish Population Dynamics and Stock Assessment** was organised by the FRA Division for seven scientists of the Institute from 11 November. The participants were exposed to topics in stock assessment and fishery management techniques including surplus production and yield per recruit models, modal progression and virtual population analysis, MSY, ecopath modelling etc. and encouraged to analyse their data using different software packages.

A **computer training** programme was conducted for ten staff members of Mandapam and Tuticorin Centres of CMFRI, from 26 August to 4 September. The participants were exposed to different operating systems, MS Office, internet and e-mail and the latest features available in Microsoft Office 2000. Practical sessions were organised for the topics and evaluation tests conducted.

In-house training was conducted on **Basic Administrative Skills** for administrative staff from 11 to 15 November

- Dr. A.P. Lipton, Principal Scientist declared as Scientist-in-Charge of Vizhinjam-Research Centre with effect from 30 November.

Onam celebrated

CMFRI family members at Headquarters competed in laying '*Pookalam*', enjoyed a sumptuous '*Onasadya*' and clapped to the rhythm of '*Thiruvathirakali*' and '*Onakkali*' on 17 August. The young and the old equally enjoyed '*Ooriadi*' (beating the pot).

Warm reception to sports winners

The CMFRI sports contingent, led by the team manager Dr. P. Jayasankar, who bagged in four I prizes at the inter-institutional ICAR sports meet hosted by NAARM at Hyderabad was accorded a warm reception at the Institute Headquarters on 20th November. The football team was victorious for the first time since our participation in the ICAR sports meet. The team members were V.A. Narayanan Kutty (Captain), A.K. Shaji, Joseph Mathew, P. Satheesh Kumar, Baby Mathew, Rajesh Babu, Jaiganesh, Mendonza Xavier, V. Rajendran, Jerald Raja, P.V. Sunil, Puranthara Shetty (Goal keeper), T.K. Antony, P.V. George & P.M. Girish.

Guests

Headquarters, Cochin

Hon'ble Union Minister for Agriculture, Shri Ajit Singh, Hon'ble Minister of State for Agriculture Shri Hukumdeo Narayan Yadav and six member parliamentary panel

Dr. Panjab Singh, Director General, ICAR

Members of Board of Management ANGRAU, Hyderabad

Shri M. Ramesh Kumar, IAS, Secretary, Agriculture, Animal Husbandry, Dairy Development & Fisheries Department

Shri M. Radhakrishnan, Minister for Fisheries, Govt. of Tamil Nadu

Smt. Binoo Sen, Secretary, Ministry of Agriculture, Dept. of Animal Husbandry & Dairying, Govt. of India

Mandapam Regional Centre

Shri Hukumdeo Narayan Yadav, Hon'ble Minister of State for Agriculture, Govt. of India

Total visitors at this Centre was 3,656 of which 2523 were students from 57 educational institutions

Tuticorin Research Centre

Shri Hukumdeo Narayan Yadav, Hon'ble Minister of State for Agriculture, Govt. of India

Shri T.K. Haldar, General Manager, Heavy Water Plant

Calicut Research Centre

Dr. Shashi Narayanan, Prof. and Head, and Dr. Meenal Sharma, Dept of Pathology, Medical College, New Delhi.

Programme participation

Prof. (Dr.) Mohan Joseph Modayil, Director

- Meeting with the Lakshadweep Administration, Kavaratti regarding establishment of an ornamental fish hatchery and culture facilities at Minicoy Island (4 July)
- Fish Farmers' Day celebrations organised by CMFRI, CIFT and State Department of Fisheries at Alleppey and gave felicitations (10 July)

- Assessment & Interview on Career Advancement Scheme for ARS Scientists at ASRB, New Delhi (8 August)
 - EFC finalization meeting with SMD, ICAR, New Delhi (4-6 September)
 - Seminar held at IARI, New Delhi and presented a concept note on "Global Warming and Challenges in Marine Fisheries" (26 September)
 - X International Congress of AAAP at New Delhi and presented a paper (27 September)
 - Inaugurated the Farmers' Mela and Marine Research Aquarium at Calicut (30 September)
 - Chaired the 57th Management Committee of CMFRI at Cochin (4 October)
 - First meeting of the 'Expert Committee to study the impacts of tourism on the backwater ecosystems in Kerala' at Trivandrum (7 October)
 - Second Indian Fisheries Science Congress at Bhopal and presented the keynote address (23-25 October)
 - Westcoast Biodiversity meeting organised by the Ministry of Environment & Forest (26-27 October)
 - Sixth Convocation at CIFE (Deemed University) (13-14 November)
 - Westcoast Biodiversity meeting at CMFRI, Cochin (25 November)
 - 59th meeting of the Project Screening Committee (PSC) and the Scientific Panel for Fisheries at Krishi Anusandhan Bhavan, Pusa, New Delhi (26-28 November)
 - Meeting on KVKS/TTCs of CMFRI, CIFA and CIFRI with the Directors and representatives of the concerned Institutes under the chairmanship of DDG (Fy) at New Delhi (29 November)
 - Inauguration ceremony of the project on Lobster Conservation at Khadiapatnam, Kanyakumari Dist., Tamil Nadu (22 November)
 - Book Releasing Ceremony of Malayalam translation of "FAO Code of Conduct for Responsible Fisheries" at CMFRI, Cochin (2 December)
 - Inauguration ceremony of Women's Day in Fisheries Sector by Shri Gyanesh Kumar, IAS, District Collector, Ernakulam at Fishing Harbour, Mumambam, organised by CIFT, Cochin and offered felicitations (4 December)
 - Project Planning Committee Meeting under the chairmanship of Dr. Swaminathan at Dr. Swaminathan Research Foundation, Chennai (12 December)
 - Sixth Indian Fisheries Forum organized by the Indian Fisheries Society (Indian Branch) and Indian Fisheries Association at CIFE, Mumbai (19-21 December)
 - Celebration of the "Kisan Divas" organised by CMFRI, Cochin at KVK, Narakkal (23 December)
 - Meeting on review, discussion and deliberation of NATP funded projects at Tamil Nadu Veterinary and Animal Sciences University, Chennai convened by the National Director, NATP, ICAR (27 December)
 - Organisers' Meeting of Aqua Show 2003 at the Hotel International, Ernakulam (30 December)
 - First meeting of the Organising Committee of the International Symposium - Freshwater Prawns 2003, presided over by Prof. K.V. Peter, Vice Chancellor, KAU at NIO Regional Centre, Cochin (31 December)
- Dr. V. Sriramachandra Murty**, Head, Demersal Fisheries Division
- Meeting with Lakshadweep Administrator, Kavaratti regarding establishment of an ornamental fish hatchery at Lakshadweep (4 July)
 - Meeting at ICAR, New Delhi in connection with the presentation of EFC (X Plan) of CMFRI (3-6 September)
 - Meeting called by the DDG (Fy), ICAR, New Delhi with Joint Secretary, DAHD, Govt. of India (18-20 September)
- Dr. N.G.K. Pillai**, Head, Pelagic Fisheries Division
- Review meeting of the ADB sponsored ICAR-ICLARM collaborative project "Strategies and options for increasing and sustaining fisheries and aquaculture production to benefit poor households in Asia" at CIFRI, Barrackpore (10-12 July)
 - VI Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Dynamics of skipjack tuna (*Katsuwonus pelamis*) fishery of southwest Arabian Sea' (17-20 December)
 - Aqua Show 2003 - International Seminar on Aquaculture and the Ornamental Fisheries at Cochin (30-31 December)
- Dr. K.K. Appukkuttan**, Head, Molluscan Fisheries Division
- NATP/SAP meeting at Chennai (12 August)
 - Pearl culture workshop at Vizhinjam (8 October)
 - State level committee meeting on Action Plan for Mussel Culture at Calicut (17 October)
 - Edible Oyster Harvest Mela held at Kayamkulam organised by BFFDA and gave a felicitation talk (22 October)
 - Review Workshop of NATP project and presented progress report at Hyderabad (15 December)
 - NATP meeting organized by the National Director, NATP at Chennai (27 December)
- Dr. R. Paul Raj**, Head, Physiology, Nutrition and Pathology Division
- Scientific Advisory Panel Meeting of the NATP Coastal Agro Ecosystem at Central Institute of Brackishwater Aquaculture, Chennai (12 August)
- Inaugural session of the Winter School on "Recent Advances in Diagnosis and Management of Diseases in Mariculture" at CMFRI (7 November)**
- Academic Council Meeting of the Central Institute of Fisheries Education, Mumbai (13 November)
 - Sixth Convocation of Central Institute of Fisheries Education, Mumbai (14 November)
 - Inaugural session of the Winter School on "Advances in Harvest Technologies" organised by Central Institute of Fisheries Technology (20 November)
 - Review workshop of the NATP Coastal Agro-Ecosystem at Central Institute for Dryland Agriculture, Hyderabad (15-16 December)
- Dr. M. Rajagopalan**, Head, Fishery Environment Management Division
- Workshop at CRIDA, Hyderabad for the Network Project 'Impacts, Adaptations and Vulnerability of Indian Agriculture to Climate Change' (20 December)
- Dr. M. Srinath**, Head, Fishery Resources Assessment Division
- Meeting with Secretary, DAHD & DDG (Fy), ICAR (19-20 September)
 - 56th Annual Conference of the Indian Society of Agricultural Statistics at University of Agricultural Sciences, Dharwad (18-20 December)
 - Aqua Show 2003 - International Seminar on Aquaculture and the Ornamental Fisheries at Cochin (30-31 December)
- Dr. R. Sathiadhas**, Head, Socio-economic Evaluation & Technology Transfer Division
- Sixth Indian Fisheries Forum at CIFE, Mumbai. Proceedings of the National Conference on Fisheries Economics, Extension and Management (edited by R. Sathiadhas) was released (17-20 December)
- Dr. E.V. Radhakrishnan**, Head, Crustacean Fisheries Division
- Organized inauguration of the MPEDA funded project on 'Participatory management and conservation of lobster resources along the southwest coast of India' at Kadlapatnam (22 November)
- Shri G.S. Daniel Selvaraj**, Principal Scientist
- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'An approach to differentiate high and low tide data in the hydrobiological studies of estuaries' (17-20 December)
- Dr. P.C. Thomas**, Principal Scientist
- Workshop convened by the DDG (Fy) for formation of Network on Genetics and Biotechnology at ICAR, New Delhi (3 December)
- Dr. P. Kaladharan**, Sr. Scientist
- National workshop on carrageenan and caragenophytes held at Krishnamurthy Institute of Algology at Chennai (21-23 November)

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Effect of humic acids on mercury toxicity to marine algae' (17-20 December)

Dr. P. Jayasankar, Sr. Scientist

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Morphometric and genetic analysis of selected species of *Epinephelus* (Serrnidae) using truss morphometrics and RAPD' (17-20 December)

Dr. Reeta Jayasankar, Sr. Scientist

- National workshop on carrageenan and caragenophytes held at Krishnamurthy Institute of Algology at Chennai (21-23 November)
- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented two papers on 'Seaweed as biofilter for monitoring the nitrogenous toxic wastes in aquaculture system' and 'Changes in the pigment constituents of seaweeds during effluent treatment' (17-20 December)

Dr. Josileen Jose, Scientist (SS)

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Hatchery seed production of blue swimmer crab, *Portunus pelagicus* (Linnaeus)' (17-20 December)

Dr. K.S. Sobhana, Scientist (SS)

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Mud crab haemocytes : morphological, cytochemical and functional characterization' (17-20 December)

Dr. D. Prema, Scientist (SS)

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Culture of *Nannochloropsis salina* in different marine growout effluents' (17-20 December)

Shri Wilson T. Mathew, Scientist

- Training on "Web Technologies" at IASRI, New Delhi (10-30 December)

Smt. Ganga, U., Scientist

- FRAD In-house training programme on "Fish Stock Assessment and Population Dynamics" at CMFRI, Cochin (11 November - 10 December)
- National workshop for field staff of FRAD at CMFRI, Cochin (4-6 June)

Dr. P.K. Martin Thompson, Scientist-in-Charge, KVK, Narakkal

- District Watershed Committee Meeting convened by the District Collector, Ernakulam at Civil Station, Kakkannad (7 August)

• Annual Review Meeting of TOT projects of ICAR, Zonal Co-ordinating unit Zone VIII at KVK, Gandhigram Rural Institute, Gandhigram (7-9 October)

- Panel discussion for A.P. Cess Fund Project of the Fisheries Division at Krishi Anusandhan Bhavan, New Delhi (29 November)

Dr. A.C.C. Victor, Principal Scientist

- Review workshop of NATP Project on coral reef ecosystem held at CRIDA, Hyderabad (15-16 December)

Dr. P. Muthiah, Principal Scientist

- Inaugural function held at the Fisheries College & Research Institute, Tuticorin in connection with the short course on "Water and waste water management in aquaculture system" (8 July)

Dr. N. Kaliaperumal, Principal Scientist

- National Seminar on 'Marine Biodiversity as a source of Food and Medicine' organised by Suganthi Devadason Marine Research Institute and delivered a lecture on "products from seaweeds" at Tuticorin (28 September)

Dr. V.D. Deshmukh, Principal Scientist

- State level meeting on fish management regulation at Arada Fish Co-operative Society (21 November)

Dr. V.V. Singh, Sr. Scientist

- Second Indian Fisheries Science Congress at Central Institute of Agricultural Engineering (23-25 October)

• Delivered a lecture on Integrated Coastal Zone Management for the short term training programme on Environmental Management in Fisheries at CIFE, Mumbai (5 December)

- Sixth Indian Fisheries Forum at CIFE, Mumbai and presented a paper on 'Impact of deteriorating coastal marine environment off Mumbai on its fisheries' (17-20 December)

Dr. V.D. Deshmukh, Principal Scientist and **Shri S.G. Raje**, Scientist (SG)

- Meeting convened by the Commissioner of Fisheries on fisheries regulation in the state at Maharashtra State Fisheries Department, Bandra (30 October)

Dr. V.D. Deshmukh, Principal Scientist, **Shri S.G. Raje**, Scientist (SG) and **Dr. V.V. Singh**, Sr. Scientist

- Sixth convocation at CIFE (14 November)

Dr. E.M. Abdussamad, Scientist (SS) and **Shri K.P. Said Koya**, Scientist (SG), **Shri Boby Ignatius** and **Smt. Bindu Sulochanan**, Scientists

- Winter School on 'Advances in Harvest Technology' at CIFT, Cochin (17 October - 15 November)

Smt. Asha, P.S., Scientist

- Short course on "Water and waste water management in aquaculture system" held at Fisheries College & Research Institute, Tuticorin (8-17 July)

- Winter school on "Recent advances in disease management in mariculture" at CMFRI, Kochi (7-21 November)

Shri M. Shriram, Technical Officer (T-5) and **Shri Vinod Bagyatkar**, LDC, Mumbai Research Centre

- A debate under the auspices of Central Hindi Secretariat, Mumbai (23 August)

Change of Name

The name of **Shri F. Arul Pragasam**, LDC at Mandapam Regional Centre has been changed as **F. Arun Prasath**.

OBITUARY

Shri Bharada Arjan Panchabhai, Tech. Assistant (T-3) at Veraval Regional Centre expired on 19.7.2002.

Shri K. Alagirisamy, Motor Driver (T-1) at Vizhinjam Research Centre expired on 9-10-2002.

Shri K.K. Kunju Kunju, SSG.IV (LA)) at Vizhinjam Research Centre expired on 12-12-2002.

CONSULTANCY SERVICES

Consultancy services are offered by the Institute in the following specialized areas:

Coastal zone and marine environment monitoring, environment impact assessment and biodiversity.

Fishing impact assessment, underwater investigations, stock assessment, fisheries forecasting, conservation and management, and socio-economic evaluation.

Shellfish and fin fish farming systems, hatchery technology and sea ranching.

TRAINING PROGRAMMES

Training programmes are also offered for a wide spectrum of clients in private, quasi government and government sectors at nominal rates on the topics of clients' interest.

Promotions

	Designation	Promoted post	Centre	w.e.f.
Shri K. Narayana Rao	Tech. Assistant (T-I-3)	Tech. Assistant (T-II-3)	Visakhapatnam	01-01-1996
Shri K. Arumughan	Assistant	Asst. Adm. Officer	Visakhapatnam	13-08-2002
Shri C.D. Manoharan.	Stenographer Gr. III	Personal Assistant	KVK, Narakkal	10-10-2002
Shri Thomas Joy	U.D.C.	Assistant	Cochin	01-01-2002
Smt. A.K. Kunjupennu	U.D.C.	Assistant	Cochin	19-08-2002
Shri N. Natarajan	U.D.C.	Assistant	Mandapam	06-11-2002
Shri P.K. Ravindran	L.D.C.	U.D.C.	Cochin	19-08-2002
Smt. T.C. Chandrika	L.D.C.	U.D.C.	Cochin	05-11-2002
Shri N. Ilamparuthi	L.D.C.	U.D.C.	Mandapam	20-11-2002
Shri T.A. Vijayan	SSG.III	SSG.IV	Cochin	03-08-2002
Shri E.F. Francis	SSG.III	SSG.IV	Cochin	07-11-2002
Shri A. Sivadasan	SSG.II	SSG.III	Calicut	07-08-2002
Shri S.M. Tandel	SSG.II	SSG.III	Mumbai	22-11-2002
Shri M. Radhakrishnan	SSG.I	SSG.II	Cochin	08-08-2002
Shri D. Bhaskara Rao	SSG.I	SSG.II	Kakinada	27-11-2002
Shri V. Sitaramacharyulu	SSG.I	SSG.II	Chennai	27-11-2002

Transfers

	Designation	From	To
Dr. P.N. Radhakrishnan Nair	Principal Scientist	Cochin HQ.	Calicut Res. Centre
Shri V. Rajendran	Technical Officer(T-7-8)	Cochin HQ.	Madras Res. Centre
Shri D. Pugazhendi	Sr. Tech. Assistant (T-4)	Cochin HQ.	Madras Res. Centre
Shri A. Ramakrishnan	Tech. Assistant (T-3)	Mandapam Camp	Pattukottai F. Centre
Shri P.P. Pavithran	Technician (T-3)	Cochin HQ	Calicut Res. Centre
Shri V. Achutha Rao	Tech. Assistant (T-3)	Palasa F. Centre	Srikakulam F. Centre
Shri P. Venkataratana	Tech. Assistant (T-3)	Srikakulam F. Centre	Kakinada Res. Centre
Shri Sijo Paul	Tech. Assistant (T-3)	Ongole F. Centre	Quilon F. Centre
Shri P. Paul Sigamony	Tech. Assistant (T-3)	Vizhinjam Res. Centre	Kanyakumari F. Centre
Shri V.M. Dharieswar	Tech. Assistant (T-3)	Mangalore Res. Centre	Karwar Res. Centre
Shri K. Lakshminarayana	Motor Driver (T-1)	Cochin HQ	Kakinada Res. Centre
Shri N. Rudhramurty	Tech. Assistant (T-3)	Cochin HQ	Madras Res. Centre
Shri Y.V.S. Suryanarayana	Jr. Tech. Assistant (T-2)	Kakinada Res. Centre	Palasa F. Centre
Shri Joseph George	Assistant Finance & Accounts Officer	Cochin HQ	Mandapam Regl. Centre
Shri V. Chandrasekharan	Assistant	Karwar Res. Centre	Cochin HQ
Shri C.D. Manoharan	Personal Assistant	KVK, Narakkal	Cochin HQ
Shri P.K. Suresh Babu	SSG.II	Minicoy	Calicut Res. Centre
Shri P.M. Gireesh	SSG.I	Cochin HQ	Minicoy Res. Centre
Shri K. Sankaran	SSG.I	Cochin HQ	Calicut Res. Centre

Inter-Institutional transfers

Dr. T. Narender	Scientist.	CMFRI, Cochin	CDRI, Lucknow
Shri K. Unnikrishna Menon	Assistant Finance & Accounts Officer	CMFRI, Cochin	IISR, Lucknow
Shri C.J. Stephen	Assistant Finance & Accounts Officer	NRC for Banana, Trichy	CMFRI, Cochin
Shri K. Ram Mohan	Technical Officer (T-5)	NRC for Oil Palm, Pedavegi	CMFRI, Visakhapatnam
Shri C. Thangaraj	SSG-I	NRC for Oil Palm, Palode	CMFRI, Vizhinjam

Retirements

	Designation	Centre	w.e.f.
Dr. P. Parameswaran Pillai	Principal Scientist	Vizhinjam Res. Centre	30-11-2002
Dr. T.M. Yohannan	Principal Scientist	Calicut Res. Centre	30-09-2002
Shri K. Ramadoss	Principal Scientist	Tulicorin Res. Centre	31-10-2002
Shri S. Krishna Pillai	Principal Scientist	Vizhinjam Res. Centre	30-11-2002
Shri R. Appa Rao	Asst. Adm. Officer	Visakhapatnam Regl. Centre	31-07-2002
Shri Jacob Jerald Joel	Technical Officer (T-6)	Vizhinjam Res. Centre	30-11-2002
Shri P. Ramalingam	Technical Officer (T-5)	Kakinada Res. Centre	31-10-2002
Shri I.P. Ebenezer	Technical Officer (T-5)	Cape Comorin F. Centre	31-12-2002
Shri K.P. Viswanathan	Sr. Tech. Assistant (T-4)	Calicut Res. Centre	30-06-2002
Shri Mohamed Jaffar	Driver (Boat) (T-4)	Mandapam Regl. Centre	31-07-2002
Shri V. Mohana Rao	Jr. Tech. Assistant (T-2)	Visakhapatnam Regl. Centre	30-06-2002
Shri C.G. Thomas	Personal Assistant	Cochin HQ	30-09-2002
Smt. I.M. Baby Rajalakshmi	U.D.C.	Cochin HQ	31-10-2002
Shri M. Ramadasan	SSG.IV (LA)	Calicut Res. Centre	31-07-2002
Shri K. Kuruvan	SSG.IV (LA)	Mandapam Regl. Centre	31-10-2002
Voluntary Retirement			
Shri P. Natarajan	Sr. Scientist	Madras Res. Centre	30-04-2002
Dr. M. Vijayakumaran	Principal Scientist	Mandapam Regl. Centre	01-09-2002
Shri K. Ratnakumar.	Motor Driver (T-4)	Madras Res. Centre	01-09-2002
Shri K.M. Abdulla	Assistant	Mangalore Res. Centre	01-11-2002
Shri K. Velayudham	SSG.II	Tulicorin Res. Centre	04-11-2002
Shri K.U. Gopi	SSG. II	Cochin HQ	25-11-2002

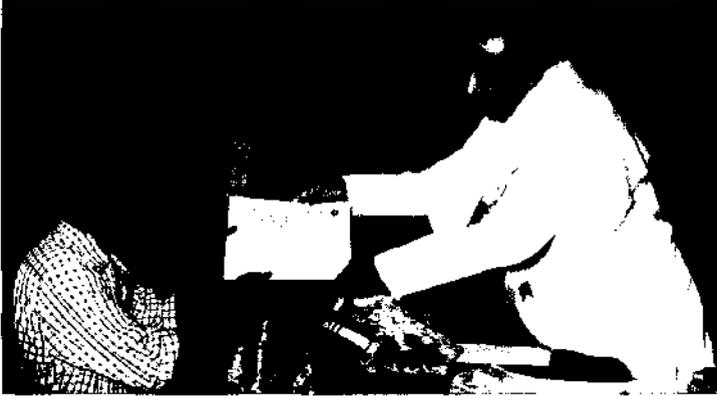
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Glimpses of Events



कुमारी संध्या सुकुमारन, जिन्होंने ए आर एस परीक्षा (2001-2002) में मछली एवं मात्स्यिकी विज्ञान विषय में प्रथम स्थान हासिल किया

Ms. Sandhya Sukumaran, Ph.D. scholar in Mariculture who secured **First Rank in ARS exam** (2001-2002) in the discipline Fish and Fisheries Science



डॉ. आनन्द पी. नटराजन माननीय वन मंत्री श्री के. एच. रंगनाथ, कर्नाटक सरकार से 'युवा वैज्ञानिक' पुरस्कार स्वीकार करते हुए

Dr. Anant P. Natarajan receiving the **'Young Scientist Award'** from Shri. K.H. Ranganath, Hon'ble Minister for Forest, Govt. of Karnataka



श्री जी. सुब्रह्मण्य भट, तकनीकी सहायक मांगलूर नगर राजभाषा कार्यान्वयन समिति द्वारा आयोजित प्रतियोगिताओं में पुरस्कार स्वीकार करते हुए

Shri. G. Subramanya Bhat, Technical Assistant, receiving the prizes in Hindi competitions organised by Mangalore TOLIC



हैदराबाद में आयोजित आई सी ए आर अंतर संस्थानीय खेलकूद प्रतियोगिता के विजेतापण
The **victorious CMFRI sports contingent** at the inter-institutional ICAR sports meet at Hyderabad



माननीय कृषि राज्य मंत्री श्री हुकुम देव नारायण यादव संस्थान के मंडपम क्षेत्रीय केंद्र में संग्रहालय का निरीक्षण करते हुए

Hon'ble Minister of State for Agriculture, Shri. Hukumdeo Narayan Yadav visits the Museum at the Mandapam Regional Centre of the Institute



मुख्य अतिथि श्री दिग्विजय सिंह, माननीय मुख्य मंत्री, मध्यप्रदेश सी आई ए ई, भोपाल में आयोजित द्वितीय भारतीय मात्स्यिकी सम्मेलन के दौरान सी एम एफ आर आई स्टाल का निरीक्षण करते हुए

Chief guest Shri. Digvijay Singh, Hon'ble Chief Minister of Madhya Pradesh, visiting CMFRI stall in the **Second Indian Fisheries Science Congress** at CIAE, Bhopal



श्री मोहम्मद कुट्टी मास्टर, जिला पंचायत अध्यक्ष कृषि विज्ञान केंद्र, नारककल में आयोजित सी एम एफ आर आई 'कृषि दिवस' समारोह का उद्घाटन करते हुए

Shri. Mohammed Kuty Master, Panchayat President inaugurating the **'Krishi Divas'** celebrations of CMFRI at KVK, Narakkal