

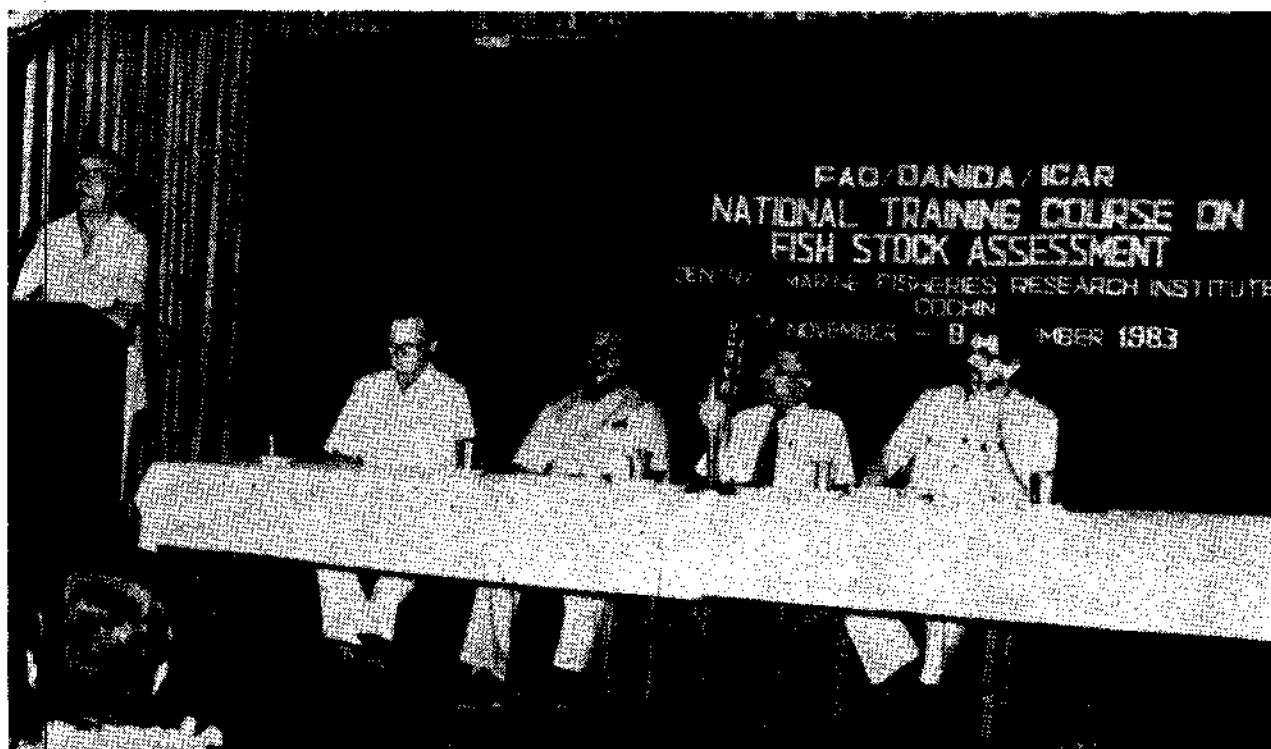


CMFRI newsletter

Number 22

October-December 1983

NATIONAL TRAINING COURSE ON FISH STOCK ASSESSMENT



Dr Moller J. Christensen, Director, Danish Institute of Fisheries and Marine Research speaks at the Inaugural session. Seated are Dr Erik Ursin, Danish Institute, Dr E. G. Silas, Director, CMFRI, Shri K. Gopalan, Vice-Chancellor, University of Cochin and Mr S. C. Venama, FAO Fisheries Resources Officer



Participants and members of faculty (see overleaf)

The ICAR / FAO / DANIDA National Training Course on Fish Stock Assessment was held at CMFRI from 7 November-9 December. The aim of the course was to teach the participants appropriate techniques for assessing stocks of fisheries in tropical seas as basis for management.

The Training Course was inaugurated by Dr K. Gopalan, Vice-Chancellor of University of Cochin. Dr Gopalan, in his inaugural address, said, "I hope that the training will go a long way in imparting the theoretical knowledge and practical experience to the Indian scientists. It has been realised only in recent years that fish stock assessment methods developed for temperate species are only partly applicable to tropics. The tropical fisheries is of complex nature due to diversity in the crafts and gears employed and demands highly sophisticated models for assessment."

Dr E. G. Silas, Director, CMFRI while welcoming the gathering said that he was very happy when the proposal for a national training course on fish stock assessment patterned on the regional workshop held by FAO in 1982 at Mombassa was brought in early 1983. Dr Silas said that the training course would expose the talented Indian scientists to broader view of the specialisation and

make them understand the recent models developed for fish stock assessment by experts working in other parts of the world

Dr Moller J. Christensen, Director, Danish Institute for Fisheries and Marine Research, and Mr S. C. Venama, Fishery Resources Officer of the FAO also spoke explaining various aspects of the Training. Shri T. Jacob, Senior Scientist, CMFRI proposed vote of thanks.



Shri Madhava Menon, IAS

The valediction of the Training Course was held on 9 December which was presided by Shri T. Madhava Menon, IAS, Vice-Chancellor of Kerala Agricultural University. Shri Madhava Menon in his address said that the development of computer programmes to deal

with tropical fisheries consisting of large number of important species was of immediate practical importance to India. He added that he was fascinated by the kind of curriculum dealt with in the programme.

The programme was based on presentation of four case studies relating to tropical fish stock assessment carried out by the experts in various tropical regions, which would have relevance to the multiple species fisheries of India. Data on Indian marine fish stocks available at CMFRI were also presented for further discussion and exercises. The programme included seminars given by foreign experts on selected topics relating to fish stock assessment.

Twentyfive scientists drawn from ICAR fisheries institutes, agricultural and other universities and the Exploratory Fisheries Project participated in the Training Course. Dr E. G. Silas, Director CMFRI was the Course Director and Mr S. C. Venama and Dr M.J. Christensen were the Course Co-Directors. The faculty was international in nature with Dr Erik Ursin, Mr Hans Lassen and Mr Per Sparre from the Danish Institute, Dr Daniel Pauly from ICLARM and Dr K. Alagaraja, Scientist CMFRI, Shri Ghosh, Scientist, CIFRI and Dr Devaraj, Scientist, CIFE.

(see also page 7)

The participants and the members of the faculty

Sitting (l to r)

Standing 1st row
(l to r)

Standing 2nd row
(l to r)

Dr K. Alagaraja, Mr P. Sparre, Mr H. Lassen, Mr Erik Ursin, Dr E. G. Silas, Dr Daniel Pauly, Shri K.K. Ghosh, Dr M. Devaraj, Shri K. Krishna Rao, Shri Narayana Kurup, Shri M. Srinath, Shri R. Thiagarajan, Dr V. Sriramachandra Murty, Shri R.A. Gupta, Shri T. M. Yohannan, Shri D. K. Chowdhury, Dr S. Ramamurthy, Shri K.V. Narayana Rao, Shri M.E. John, Shri C. Mukundan, Shri K. Gopalkrishnan, Dr K.Y. Muhammed Salih, Shri R. K. Tyagi, Shri K.K.P. Panikkar, Shri R.S. Biradar, Shri P. Natarajan, Shri P.M. Mitra, Shri M.M. Meiyappan, Shri C. Suseelan, Shri T.M. Sankaran, Dr P. Parameswaran Pillai, Dr S. Ajmal Khan and Shri K.S. Udupa.

Fish Culture in Sandy Shore Demonstrated



The feasibility of converting derelict sandy shores into productive fish ponds was demonstrated at the Calicut Research Centre of CMFRI. To spread the message a fish harvest mela was held on 31 December. The mela was attended by a number of fishermen, the public and representatives from research and banking institutions.

A programme on fish and prawn culture in polyethylene-lined ponds dug out on sandy beach has been in progress for the last three years and several experiments were carried out. The present harvest of *Chanos chanos* (Poomeen) stocked in July yielded 278 kg of fish from an area of 0.18 ha with the production rate of 1,540 kg per ha in six months. The maximum

length of the fish was 375 mm and weight was 380 g. The stocking rate was 1 fish per m². The fish were fed with artificial diet compounded from groundnut oil cake, tapioca powder, fish meal, prawn head powder and rice bran in certain proportion, taking into account the nutritional requirements.

A meeting was held in

Workshop on Invertebrate Endocrinology

In breeding of crustacean and molluscs the acceleration of maturation process, spawning, moulting and growth are under neuroendocrine control. Although success has been achieved in inducing reproduction and controlled breeding, many fundamental aspects concerning the structure, function and coordination of endocrine complex are still to be understood. Invertebrate endocrinology is a developing field and literature on research methodology are scattered. A Workshop in this subject was held at CMFRI from 18-26 October to discuss, demonstrate and give practical training in certain tested research methodologies commonly employed for investigation on endocrinology of marine invertebrates such as crustaceans, molluscs and echinoderms and to enhance

this connection with Shri M.A. Sankaran, Mayor of Calicut Corporation as the chief guest. The Mayor appreciated the efforts of CMFRI scientists in developing various methods for culture of protein-rich fish. The meeting was presided by Dr P. V. Ramachandran Nair, Senior Scientist, CMFRI, who while mentioning about the advantages of the technology, requested the fish farmers and cooperative societies to come forward to take up such culture systems which can be operated part-time by men and women. Shri M. Kumaran, Officer-in-Charge of the Research Centre welcomed the gathering and Shri S. Lazarus, Scientist in charge of the culture experiment proposed vote of thanks.



Dr S. V. Bapat, Joint Director, CMFRI welcomes the gathering. Seated are Dr Maharaj Singh, (Deputy Director General ICAR and the Director ICAR/UNDP Project on Post-graduate Agricultural Education), Shri Alikunhi and Professor Dr Nagabhushanam

the competency of research workers. The Workshop was organized by the CAS in Mariculture in close collaboration with the Department of Zoology, Marathwada University, Aurangabad under the leadership of Dr R. Nagabhushanam, Professor and the Head of the Department of Zoology who had been working in the field for last one-and-a-half decades and had developed a school of researchers in the field. Research scholars from CAS and scientists from CMFRI participated in the

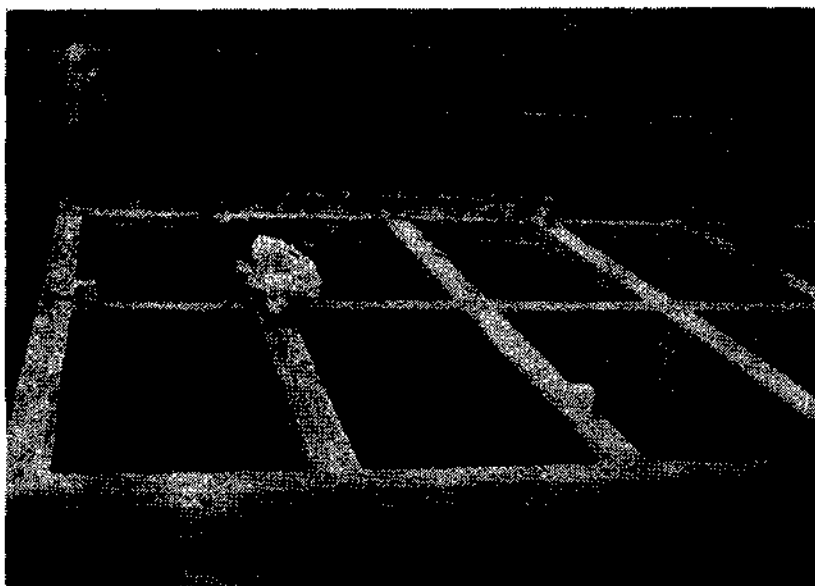
Workshop.

The Workshop was inaugurated by Shri K. H. Alikunhi, Adviser for Aquaculture, FAO. Dr R. Raghuprasad, Emeritus Scientist was the chief guest for the valedictory function.

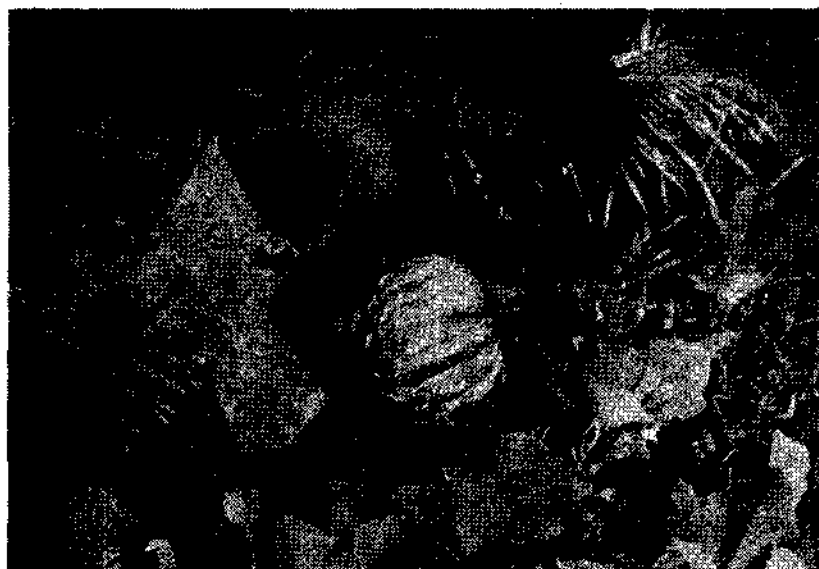
A manual on Research Methodology for Invertebrate endocrinology prepared by Dr R. Nagabhushanam, Smt S. Nagabhushanam and Smt M.S. Mirajkar of Marathwada University was released by Dr Maharaj Singh, Deputy Director-General, ICAR.

Pilot-Scale Prawn Hatchery at Narakkal

The pilot-scale marine prawn hatchery of CMFRI at Narakkal has become operational. In the first phase of construction, ten 4.5-ton capacity larval rearing tanks, five 12-ton capacity nursery tanks and three 10-ton capacity broodstock pools have been completed. The operations in this new hatchery facility will provide data on the economics of large-scale production of prawn seed.



The hatchery



Vegetable harvest under Lab-to-Land Programme.

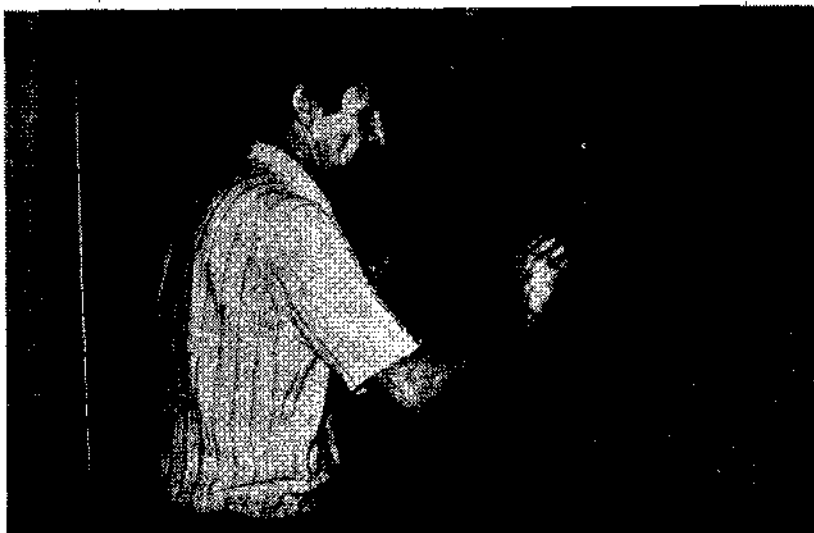
Training Courses Conducted at KVK since the inception

Duration of the course	Number of courses	Number of farmers trained		
		Men	Women	Total
1 month	11	135	—	135
20 days	3	54	—	54
15 days	4	75	—	75
10 days	43	490	311	801
5 days	47	332	480	822
2 days	1	39	—	39
1 days	7**	51	214	265
Total	116	1176	1105	2191

**Four courses were arranged as part of the implementation of the 20 Point Programme of the Prime Minister.

Consultancy

Dr J. P. Flassch, Molluscan Aquaculture Expert from Oceanologique de Bretagne (CNEXO), Brest, France gave consultancy at the CAS from 18-19 November. During his stay at Cochin Dr Flassch held discussions with the Director and the scientists in molluscan hatchery and culture programmes and delivered a special lecture on molluscan aquaculture in France. Later at Tuticorin Research Centre, the expert conducted group discussions and seminars. The scientists working in molluscan aquaculture interacted with the expert and discussed problems of broodstock management and hatchery production of seed of economically important species of molluscs.



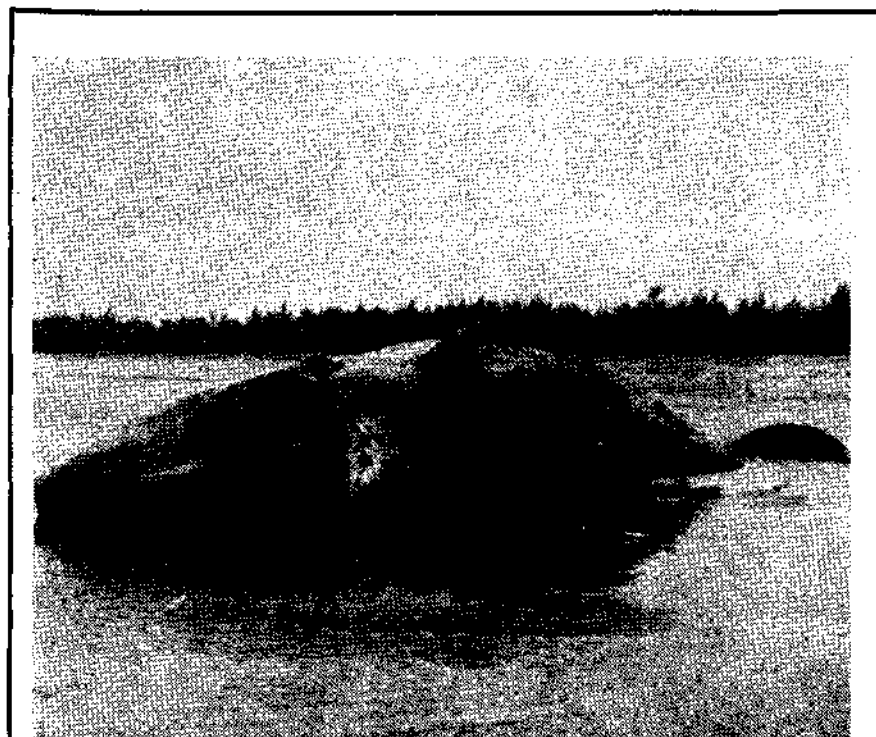
Dr Flassch

Third Antarctica Expedition Leaves for the Continent

India's Third Expedition to Antarctica on board FINN-

POLARIS has left for the continent on 27 December.

Dr K. J. Mathew, Scientist in the Fishery Environment Management Division of CMFRI, who is a member of the team will be carrying out investigations on the Antarctic krill resources. The systematics, biology, distribution and resource potential of krill will be studied. Krill is one of the important potential resources in Antarctica Ocean and India has an interest in it. The technology for harvest of krill and post-harvest treatment for utilization have been developed only in a very few countries in the world and indications are that this resources can be commercially exploited. India is expected to have the basic information for planning the exploitation of krill in future through the work of CMFRI during the expedition. Information on sighting of whales in the waters of southern latitudes would also be collected.



Whale stranded at Peddaganjampallipalem (Chirala Taluk, Parakasam District) Andhra Pradesh on 15 December. (Reported by Shri T. Chandrasekhar Rao, Technical Assistant at Ongole)

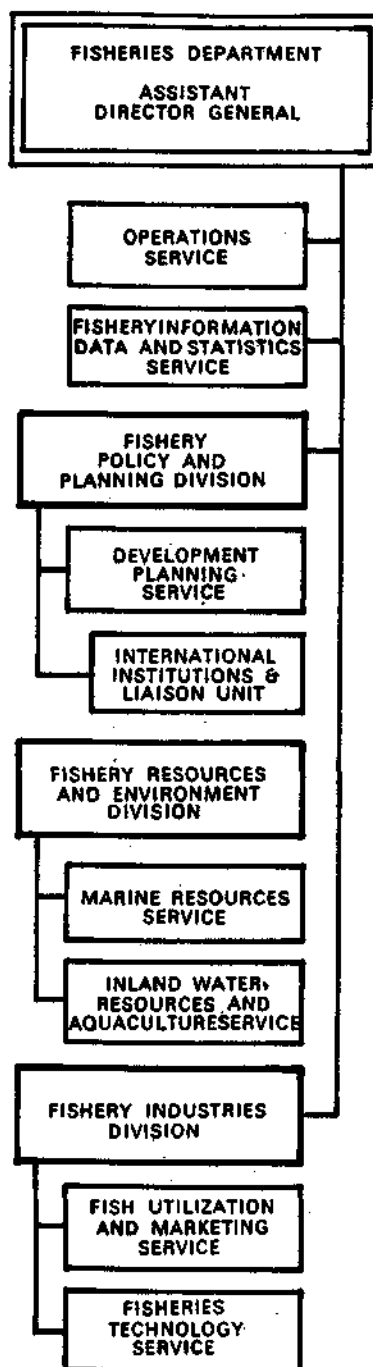
Interview

Mr Venama — On the Organization of the Training Course

“The FAO/DANIDA Project ‘Training in Fish Stock Assessment’ (INT/392/DEN) is one of the important programmes, organized by the FAO’s Fisheries Resources & Environment Division. The Project started in 1982 and is likely to continue till 1986. There are two types of courses, regional and national. The first regional course with participants from the Indian Ocean countries was held in Mombassa, Kenya in June 1983 and the next regional course will be held in Hirtshals, Denmark in June for participants from West Africa and the Caribbean. The regional courses are organized directly by FAO whereas the national courses are organized by the country concerned, with assistance from the Project, in the form of staff and lecture material. The procedures for organizing the regional courses are a bit complicated. Moreover, in this type of courses there may not be proper and sufficient representation from the larger participating countries. For example, India which has large number of fishery scientists may not be sufficiently represented. Therefore, in future, we will be concentrating more on national courses in the larger countries. We are planning to arrange such courses in Malaysia and Indonesia. We are also planning to organize a workshop in 1985/86 to bring together the best of the trainees and in particular, people involved in training programmes for fishery science.

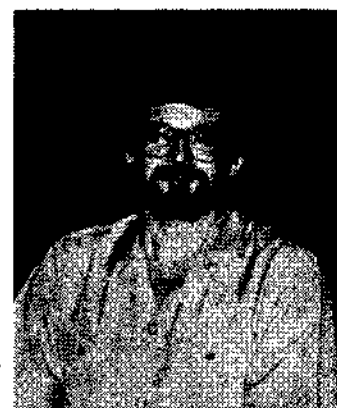
The case-study approach

“Well! this is Dr Erik



FAO's Fisheries Division

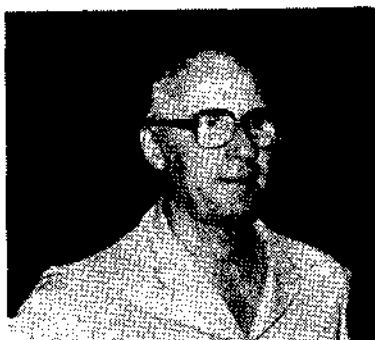
Ursin's idea and it has proved to be a success, although there are minor disadvantages. In particular during the initial stage of the course, the participants usually prefer a more-text book approach. The contents of the present course



Mr S. C. Venama

Mr S. C. Venama is the Fishery Resources Officer in the Marine Resources Service of FAO since 1977. A student of biology from the University of Groning in Netherlands, Mr Venama worked as a biologist and did research on crab ecology and migration in the early sixties. Having worked as a teacher in biology in a school for 3 years he moved over to FAO in 1969 and has since been serving FAO in various capacities. He was associated with various FAO projects in different countries, mainly tropical. He is the Coordinator of the FAO Training Programme on Fish Stock Assessment.

were examined by a team of Danish lecturers and suitable modifications were made on the basis of experience gained in Kenya. The case study approach enables one to explore the possibilities of analysing the data base through various methods and compare the validity and efficiency of the methods. Care has also to be taken in choosing the cases relevant to fisheries of the country concerned.



Dr Moller J. Christensen, Director of the Danish Institute for Fisheries and Marine Research since 1973 is actively associated with the training programmes of FAO as a representative of DANIDA. A post-graduate from the University of Copenhagen Dr Christensen worked as a biologist in the Danish Institute from 1961-1969 and later as statistician and permanent secretary to the Advisory and Fisheries Management Committee of the International Council for Exploitation of the Seas during 1969-73.

Follow-up

Selected participants will have an opportunity to make a short study tour to, for example, Denmark or Manila (ICLARM) to work on their own data under supervision. Teaching in the use of microcomputers may also be involved. The Project may also provide direct technical advice, through consultants and correspondence. One field now opening up is the use of microcomputers and the development of programmes for stock assessment purposes. The major objective of our programme, including the FAO/DANIDA Project, is to develop a better scientific base for fisheries development and management. I am quite confident that in a few years time there will be complete change in the stock assessment approach and many people will be involved in it developing new models.

Publications and literature

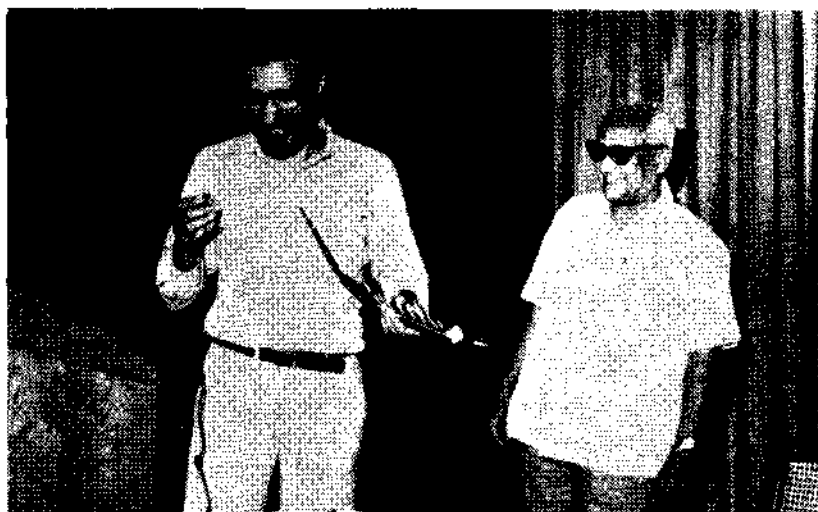
There is great demand for scientific publications and literature especially from developing countries like India. There is greater awareness of

the problems concerning fish stock assessment and management. The increasing demand is further stimulated through the training courses. As far as possible we are trying to supply the relevant materials to the users.

Objective of the FAO'S Marine Resources Programme

The major objective of our Programme, including the FAO/DANIDA Project, is to develop a better scientific base for fisheries development and management.

Fishery resources are limited and shared by many. The task of fishery scientists is to provide the managers with the necessary data on the status of the resource. The managers may use this knowledge to take measures which are also based on sociological and economical consideration. Scientific advice may stimulate investment but can also prevent over investment. Very few new fisheries can still be developed and in most countries fishery scientists are now engaged in providing the data for management purposes. 99



Dr Daniel Pauly all smiles on receiving a memento from Dr S. V. Bapat, Joint Director, CMFRI. Dr Pauly is the Associate Scientist at the ICLARM mainly working on tropical fishery resources assessment

A large part of the training programme is planned by a group of scientists from the Danish Institute for Fisheries & Marine Research and the Roskilde University and most of the foreign lectures come from the Fishery Research Institute. The Danish International Development Agency (DANIDA) has allotted money to FAO for use in the training courses for tropical fishery scientists. The courses are managed by Mr Venama of FAO and by the Director of the Danish Fishery Research Institute Dr Moller Christensen, with assistance from ICLARM (International Centre for Living Aquatic Resources Management) through Dr Daniel Pauly.

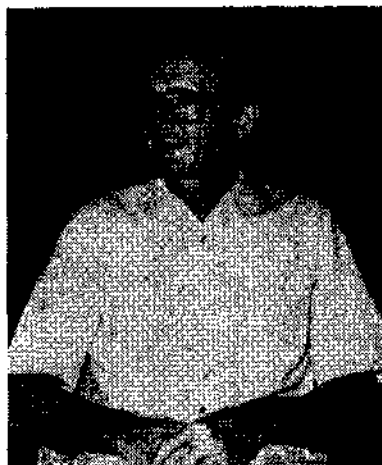
The Danish Group—On Assessment and Sharing of Stock

On the Training Programme and its impact

We can, of course, only hope that there will be an impact. Time will show if what we have taught these weeks has some influence in India. We have thought of this National Training Programme for India since India has a large number of scientists working in fisheries and has long tradition in fishery research. If a programme is to be arranged in a particular country, there must be sufficient number of scientists to participate in the same. The next course in this programme is as an international training programme next June in Denmark with participants from West-Indies and West-Africa.

Fishery research work in Denmark with particular reference to population dynamics

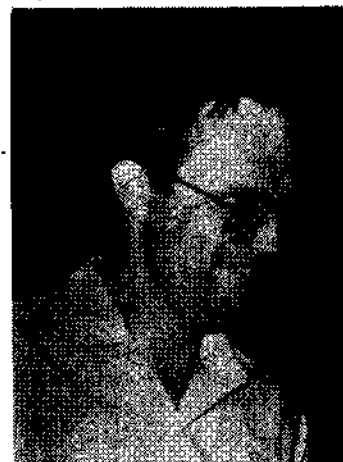
That can be grouped into three parts. Field work, assessment of fish stock and theoretical work. The field work consists of market sampling and the research vessel programme. The market sampling gives total catch in weight by species and by season and sea area. Furthermore, biological sampling enables us to raise the total catch in weight to catch in numbers by age group for each fish stock. The abundance of juvenile fish is determined by annual trawl surveys. The Danish Institute furthermore conducts several hydro-acoustical surveys annually, with the aim of corroborating the estimates of fishing mortalities and stock size, obtained through the market sampling programme. The theoretical work is mainly on fish stock and yield assess-



Dr Erik Ursin, DSC from the University of Copenhagen is wellknown for his outstanding contribution to fishery science, spanning a period of over thirty years. His earlier work on geographical variation of European mammals and later on quantitative studies of North-Sea benthose established him as one of the leading experts in the field. Since 1963, he was actively engaged in research on population dynamics including growth of fishes and species interaction. He is also associated with various UNESCO and FAO training courses on statistics and population dynamics. Dr Ursin is a Senior Scientist in the Danish Institute of Fisheries and Marine Research, Copenhagen, Denmark.

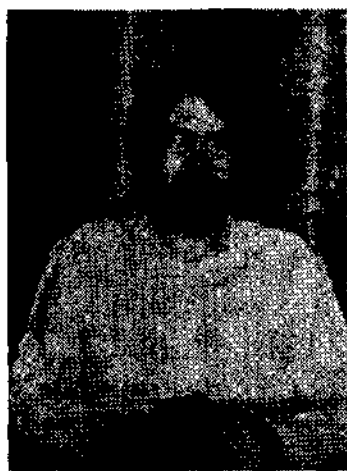
ment methods. The aim is to develop methods which take into account the interaction between fish species, particularly with respect to predation. Similarly, the interaction between fisheries caused by fleet fishing mainly for one species but taking

other species as by-catch is investigated. Eventhough we do not have the problem of multigear and multispecies to the same degree as you have in India, our fishermen go mainly for one species but land other species as well. The Danish fishery consists of two major fleet components. One is for direct human consumption and the other one landing fish for pro-



Mr Hans Lassen is an MSc in theoretical chemistry and BA in management from the Copenhagen School of Management. Mr Lassen joined the Computer Division of the Danish Institute in 1977 and within three years became the Head of the Division. Recognising his good work he was asked to fill the Danish seat in the International Committee responsible for biological advise on fishery management in the North Atlantic from 1979-1981. Now Mr Lassen is the Head of the Department of Survey in the Danish Institute, mainly dealing with the hydroacoustical survey techniques.

cessing to oil and fish meal. The most important species landed for direct human consumption is a flatfish plaice, a roundfish, cod and a clupeoid, the European herring. The species which dominate the landings for reduction purpose are a small clupeoid, sprat, a small ammodytia, sand eel (sand lance) and a small gadoid, Norway pout. Other species occur as by-catch which is a major problem for this fishery since the bycatches for reduction purpose compete with the fisheries for direct human consumption. The results are passed on to the International Council for Exploitation of the Seas, (ICES) which is responsible for most of the biological advice on



Mr Per Sparre, Scientist at the Danish Institute for Fisheries and Marine Research Since 1972 is an expert on mathematical modelling on fisheries ecosystems and is a part-time lecturer in fish stock assessment in the University of Copenhagen. Mr Sparre is a member in the ICES group. Mr Sparre had earlier visited India in 1981 on a two-month FAO Consultancy in modelling composite carp culture at Dhuli.

fishery management in Europe. Such advice is based on working group reports, issued annually by ICES. The working group normally meets every year and issues reports on one or several of a total of about 80 fish stocks. Each such report is based on about a week's work by ten or twenty scientists from the member countries who are from North Europe and North American countries. Each country presents its data to the group and the group decides on methods and applies them for assessment of the present state of stocks and evaluates possible measures to improve them. The results of most of the Danish work on fish population dynamics are passed through these working groups. The outcome is put forth to the European Economic Commission (EEC) etc. The Danish Institute is also asked for advice which gives information based not only on its own work but also the work done in other countries.

The system of estimating fish landings

The total landings in weight by species or species group are obtained through recording of all first hand sales of fish. The Danish Ministry for Fishery is responsible for this programme. The Danish Institute is responsible for obtaining biological data pertinent to fish stock assessment i. e. conversion of catch into numbers, length and age compositions. This programme is based on a chain of small laboratories each staffed with one or two assistants. This chain of annexe laboratories covers all major fishing harbours in Denmark. Through this system the Danish landings are regularly sampled. As far as

human consumption landings are concerned, the Danish system is similar to the Indian stratified multistage random sampling procedure. In the case of the industrial fishery also the species composition must be obtained. The end result is an estimate of the annual catch in number by age for each fish stock. Aging is usually done using otolith aging technique. The aging is done on a large scale (10,000 fish annually). Besides the routine estimates investigations are conducted for developing new methods and measuring techniques.

Sharing of stocks

There has over, more than a two decades, been a constant drive towards establishing an international fishery policy for all involved nations around the Northeast Atlantic and the Baltic seas. This has led to a lot of arguments on how to partition the fish resources. At the present moment fishery scientists are keeping a low profile in this aspect. All countries, of course, have their own interests to project and the diversity of objectives found between fishing sectors have made it very difficult to obtain consensus on a fishery policy. Recently some major issues which have been discussed since late 1976 have been settled within the European Economic Community. The fishery scientists have had little to contribute to this discussion since the problem basically is one of how to share a given cake. As mentioned above much of the assessment work deals with the state of the total stock. This is the problem of how big is the cake.??



Exhibition

Vizhinjam Research Centre of CMFRI participated in the exhibition held at Sivagiri in connection with the Sivagiri Theerthadana Kanaka Jubilee in December.

All the four research institutes of ICAR functioning in Kerala had put up their show in the ICAR pavilion.

Picture shows (left) ICAR pavilion and (below) Shri A. L. Jacob, Minister for Agriculture, Kerala State is being taken around in the CMFRI's stall by Shri C. Mukundan, Officer-in-Charge of the Research Centre.



Visitors

Cochin

Dr Maharaj Singh, Project Director, Shri M. C. Jayaraman, Deputy Project Coordinator and Smt. Sukuntha, UNDP Assistant Programme Officer visited CAS, 17-18 October.

Dr G. Oblisami, Sub-project Coordinator, CAS in Agricultural Microbiology, Tamil Nadu Agricultural University and Dr C. A. Reddy, UNDP/FAO Consultant visited CAS, 29 October.

Mr A. L. Mendiratta, Programme Officer, UNDP, New Delhi and Miss I. M. Field, In charge, Fellowship Division, FAO, Rome visited CAS, 19-20 November.

Community Development Minister Visits KVK

Shri P. K. Velayudhan, Minister for Community Development, Government of Kerala visited KVK on 3 October. The Minister evinced keen interest on the various training

programmes of the Kendra.

Dr O.F. Abediyi, Asst. Chief Fisheries Officer and Project Coordinator, FAO / UNDP, Nigeria visited KVK.

Dr B. L. Baynee, Joint Director, National Environmental Research Council, Plymouth, U. K. visited CAS, 19 November.

Shri G. V. K. Rao, Chairman of the High Level Committee on Land and Water Resources visited CMFRI on 11 Novem-



Mr A. L. Mendiratta, Programme Officer, UNDP, New Delhi and Miss I. M. Field, Incharge, Fellowship Division, FAO Rome with Dr E. G. Silas, Director and Shri P. Vedavyasa Rao, Senior scientist, CMFRI

ber and held discussion with the Director and Senior Scientists. He was shown the film on mariculture.

Bombay

Mr J. L. R. Putty, UNESCO Research Fellow and Education Officer, Mahatma Gandhi Institute, Moka.

Shri B. G. Deshmukh, Labour Secretary, New Delhi.

Mandapam Camp

Shri Gurnhal S. Pirzada, IAS, Assistant Collector, Madurai.

Shri Deenabandu, Assistant Collector, Ramanathapuram

Tuticorin

The students on study tour from the following colleges visited the Centre.

St. Joseph College, Irinjalkuda

St. Albert's College, Ernakulam

St. Theresas College, Ernakulam

S. N. M. College, Maliankara

B. C. M. College, Kottayam

M. S. M. College, Kayamkulam

C. M. S. College, Kottayam

St. Peter's College, Kolancherry

S. B. College, Changanacherry

Assumption College, Changanacherry

Hutatoma Rajaguar Mahavidyalaya, Pune

S. P. College, Alwaye

U. C. College, Alwaye

N. S. S. College, Dhanuvachapuram

J. S. S. College, Samrajanagar

Government College, Madappally, Calicut

Dr A. Mathew, CMO, Vikram Sarabhai Space Centre, Trivandrum.

Shri R. Chandramouli, Deputy Accountant General, Madras.

Shri M. V. Kannan, Supdt. Engineer, CPWD, Madras.

Dr R. P. Pillai, Assistant Commissioner of Income Tax, Madras.

Dr G. Rengaswami, Chief Executive, Vorion Chemicals and Distilleries, Madras.

Shri P. Unnikrishnan, Joint Director of Fisheries (Inland), Trivandrum.

Shri S. Krishnamurthy, Director SPIC, Tuticorin.

Engagements

Dr E. G. Silas, Director attended the following:

Meeting of the Common Wealth Pre-COFI, FAO at Rome, 9 October.

Fifteenth Session of the Committee on Fisheries (COFI) FAO at Rome. 10-9 October.

ICAR Directors' Conference at New Delhi, 21-28 October.

Review Meeting of the Centre of Advanced Studies in Mariculture at New Delhi, 22 November.

Twentyseventh Meeting of the Scientific Panel for Fisheries of the ICAR at Delhi, 19 December.

Dr S. V. Bapat, Joint Director attended the following:

ICAR Zonal Sports Meet at Bangalore, 3-4 October.

ICAR Directors Conference at New Delhi, 21-28 October.

First Meeting of the Inter-Institution Infrastructural Facilities Evaluation Committee at Central Inland Fisheries Research Institute, Barrackpore, 25 November and accompanied the Committee during its visit to Madras and Kakinada Research Centres, 26-31 December.

Meeting of the Commonwealth Fisheries Committee

Dr E.G. Silas, Director, CMFRI was a member of the official delegation, representing India, at the Commonwealth Pre-COFI meeting (9 October, 1983) and the 15th Session of Committee on Fisheries (COFI) Meeting (10-19 October, 1983), organized by the Food and Agriculture Organization of the United Nations at Rome. The delegation was led by Shri S. P. Jakhanwal, Joint Secretary (Fisheries) in the Ministry of Agriculture, Govt. of India. The agenda items of the Commonwealth Pre-COFI meeting centered on the same focal themes that were to be discussed at the COFI meeting and the discussion was a prelude to exchange views among the Commonwealth countries.

The Fifteenth Session of the Committee on Fisheries (COFI) constituted the Technical Phase of the FAO World Conference on Fisheries Management and Development scheduled for 27 June - 6 July 1984. It was attended by 93 members of the Committee, observers from 22 other FAO Member Nations and representatives of non-governmental and international organizations. Shri S. P. Jakhanwal (India) was elected Chairman of the Drafting Committee.

The Indian delegation played an active role during the discussions on the agenda items which included: 4 (a) Objectives, policies and strategies for fisheries development, 4 (b) - Principles and techniques of fisheries management, 4 (c) - Conditions

and control of access to fishery resources in Exclusive Economic zone, 4 (d) - Special problems of small-scale fisheries, 4 (e) - Special problems of small developing Island states in the management and development of fisheries under the new ocean regime, 4 (f) - Special problems of inland fisheries and aquaculture, 4 (g) - International trade in fish and fishery products, 4 (h) - International collaboration in research, management and development, including the role of FAO, 5 - Basic elements for a strategy for fisheries management and development and basic elements for action programmes, 6 (a) - Work of FAO in Fisheries during 1984/85, 6 (b) - Report on EEZ programme, and 6 (c) - FAO/UNEP Draft Global Plan of Action for the conservation, management and utilisation of marine mammals.

Some of the interventions by India related to EEZ resource surveys; utilisation of bycatch; fish in alleviating undernutrition; need for ocean policy on fisheries; importance of data acquisition and dissemination on all aspects of fisheries, developing comprehensive legal framework for fisheries management; optimum production in present limits of coastal fishery by diversification and through helping small-scale fisheries in terms of technology and economic benefits; collaboration on regional basis in minimising post-harvest losses, international trade and MCS programme; transitory phase of foreign fishery in EEZ of coastal states; dissemination of information by

FAO on access conditions, global system of marking fishing vessels and help with drafting fisheries legislation in coastal states (when required); diversification of skilled labour in small-scale fisheries sector in related marine activities; aquaculture including sea farming as alternate avocation; role of women in small scale fisheries; extension; continuation of FAO Network of Aquaculture Lead Centres; strengthening TCDC among developing countries; strengthening of R&D programmes in farm engineering and commercial hatchery development; judicious use of mangrove for aquaculture; need for strong market intelligence service; need to remove import discriminatory restrictions on tariff and quality of products; need for encouraging regional trade; FAO regional bodies/committees to establish greater liaison and rapport with national agencies; declaration by FAO of International Year for Aquaculture (proposed by India); River Basin and Reservoir Fisheries Development priorities; inclusion of lesser cetaceans in the Indian Ocean marine mammals, conservation strategy and greater emphasis on non-consumptive utilisation of whales.

On the concluding day of the session, the Committee adopted the Report summarising the discussions, identifying the key issues for fisheries management and development, recognising the work of FAO in fisheries, and making a preliminary consideration of basic elements for

STAFF NEWS

Appointments

Shri V. D. Yadav as Field Assistant (T-1) at Bombay, 21 October.

Shri Baban N. Katkar as Field Assistant (T-1) at Bombay, 1 December.

Shri S. R. Narayanan, Assistant as Superintendent at Cochin, 29 December.

Shri S. Balakrishnan as S. S Grade I (Watchman) at Mandapam, 12 October.

Shri P. Selvaraj, as S. S. Grade I (Safaiwala) at Madras, 15 December.

Shri V. Narashimha Bharathy as S. S. Grade I (Safaiwala) at Mandapam, 30 September.

Shri V. C. Antony, S. S. Grade II (Peon) as Junior Clerk at Cochin, 3 November.

a strategy for fisheries management and development and for associated action programmes. It has been agreed that the proposal for the following five Action Programmes should be submitted to the policy phase of the World Fisheries Conference (1984). It includes fisheries management and development, development of small scale fisheries, aquaculture, trade in fish and fish products and promotion of fisheries in alleviating under-nutrition.

♦ ♦ ♦ ♦
Dr E. G. Silas, Director has been nominated by the Executive Committee of the Publication and Information Directorate, CSIR to serve as a member in the Editorial Board of the Indian Journal of Marine Sciences for 3 years from January 1983 to December 1985.

Shri V. Alagan as S. S. Grade I (Watchman) at Mandapam Camp, 7 November.

Shri V. Manoharan as S. S. Grade I (Fieldman) at Madras, 7 November.

Shri M. Sankaran, as S. S. Grade I (Fieldman) at Tuticorin, 5 December.

Transfers

Shri G. M. Kulkarni, Scientist S from Karwar to Goa

Shri J. Bhuvaneswara Varma, Field Assistant (T-1) from Kakinada to Waltair.

Dr C Thankappan Pillai, Technical Assistant (T-I-3) from Cochin to Vizhinjam.

Reliefs

Shri K. Dorairaj, Scientist S-2 to take up the post of Scientist S-3 at CARI, Port Blair, 1 November.

Shri R. Soundararajan, Scientist S-1 to take up the post of Scientist S-2 at CARI Port Blair, 29 November.



Shri P. R. S. Tampi, Scientist S-3 retired on superannuation on 31 December.

Shri V. D. Yadav, Field Assistant, (T-1) on resignation, 10 November.

Shri K. Anbalagan, Driver (Boat) (T-1) to take up the post of Engine Driver (T-2) at Bombay, 29 December.

Shri V. Reghu, S. S. Gr. I (Watchman) on resignation, 10 November.

Miss K. Tharamathi, Junior Clerk on resignation, 20 December.

PhD Awarded



Shri V. S. Krishnamurthy Chennubhotla, Scientist S-2 was awarded Ph. D by the Calicut University for his thesis 'Environmental Studies on Some Selected Ecosystems.'

Weddings

Dr R. Padmini, Scientist S-1 at Cochin married Shri Indusekharan at Ernakulam, 1 December.

Shri T. Vijayakumar, S. S. Grade I (Messenger) at Cochin married Kumari Kamala at Cochin, 15 December.

Shri S. D. Kamble, Field Assistant, (T-1) at Bombay married Kumari Rajani H. Shinde, 31 December.

STC Advisory Committee on Tuna Fishing

In pursuance of the recommendations made by the State Trading Corporation, Ministry of Commerce, Government of India has decided to set up an Ad-hoc Advisory Committee on Pilot Operations of Tuna Fishing to review the progress of STC's Tuna Project and offer guidance on new possibilities. The terms of reference of the Ad-hoc Advisory Committee will be to review, once in every quarter or earlier, the progress of STC's fisheries projects and to offer guidance on new possibilities and suggest new schemes. Dr P. Parameswaran Pillai, Scientist S-2 has been nominated by the Director to represent CMFRI in the Committee.

Committee to study the impact of dredging operations

The Government of Kerala has constituted a Committee to study the problems faced by the traditional fishermen community as a result of the dredging operations in the Vembanad Lake by the Travancore Cements Company Ltd and to see whether dredging would destroy the fisheries wealth of the Vembanad Lake. Shri G. P. Kumara swamy Achary, Scientist S-1 is nominated to represent CMFRI in the committee.

SPORTS

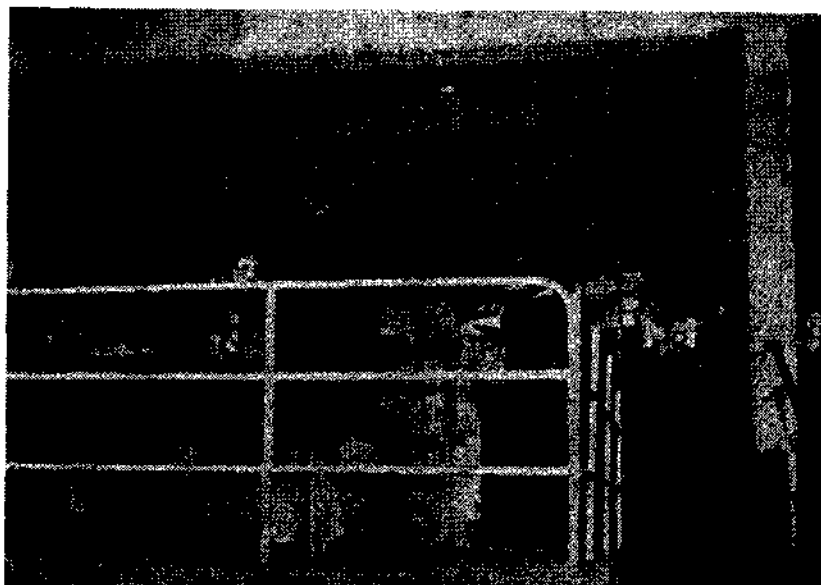
Shri V. Atchutha Rao of Palasa Field Centre was adjudged the best athlete of the meet and won the individual championship trophy at the ICAR (Zone IV) sports meet held at Bangalore from 3 to 7 October. He clocked first in 100, 200 and 400m sprints and helped CMFRI win the third place in 4x100m relay. Three cheers to the champion for his magnificent performance.

Shri A. Kumar of Pattu Kottai Field Centre jumped 1.55m high to win the first place. Shri M. Alfred of Tuticorin Research Centre in pole-vault and Shri L. K. Suvarna of Karwar Research Centre in 5km cycle race,

secured second place in their events.

The CMFRI 4x100m relay team which bagged the third prize was represented by the champion athlete and Shri Poovanan, Shri N. Asok Kumar and G. K. Rajan. Well done athletes, keep it up.

A contingent of 38 players representing CMFRI took part in all track and field events and games. The team of CMFRI in kabaddi, volleyball, football, table tennis and badminton, though played well could not bag any prize. They went down fighting the better opponents. Better luck next time. In all it was a good show by the CMFRI contingent, the athletes performing gloriously and the other teams putting up a spirited fight.



Atchutha Rao receiving the prize

REWARD !!

LOOK FOR TAGGED PRAWNS

Reward: Rs 5/- For Prawn With Tag or Rs 2/- For Tag Alone

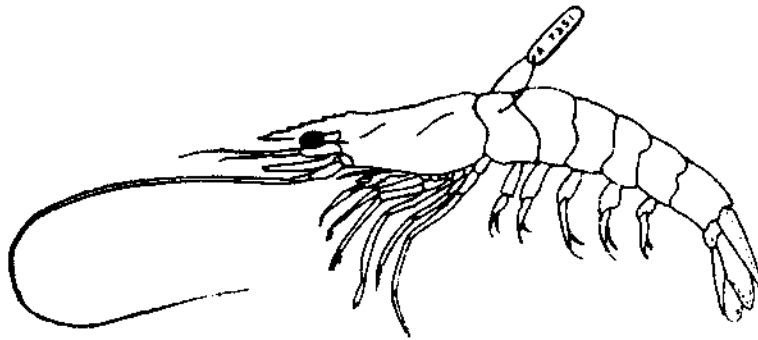
IF COLLECTED AND RETURNED TO:

CENTRAL MARINE FISHERIES RESEARCH INSTITUTE AT

ERNAKULAM NEENDAKARA VIZHINGAM KANYAKUMARI TUTICORIN MANDAPAM
PATTUKOTTAI NAGAPATTANAM PONDICHERRY CUDDALORE MAHABALIPURAM
KOVALAM MADRAS

If Tag / Tags Sent by post, Write

1. Name and Address of Sender
2. Place and Date of Capture
3. Length of Fish (In Inches or Centimetres)



ഈ ചെമ്മീനുകളെ ശ്രദ്ധിക്കുക!

ഇവയെ നിറമുള്ള പ്ലാസ്റ്റിക് അടയാളങ്ങൾ കൊടുത്തി
കടലിൽ വിട്ടിരിക്കുന്നു

ഇവയെ തിരിച്ചെല്പിക്കുന്നവർക്ക് അടയാളത്തോടുകൂടിയ ഓരോ ചെമ്മീനിനും 5 രൂപാ വീതവും
അടയാളത്തിനുമാത്രം 2 രൂപാ വീതവും ലഭിക്കുന്നതാണ്

കണ്ടുകിട്ടുന്നവർ ഏല്പിക്കേണ്ട സ്ഥലങ്ങൾ:

**സെൻട്രൽ മറൈൻ ഫിഷറീസസ് റിസർച്ച്
ഇൻസ്റ്റിറ്റ്യൂട്ട്**

എറണാകുളം, നീണ്ടകര, വിഴിഞ്ഞം, കൊളച്ചൽ, കന്യാകുമാരി.

**പ്ലാസ്റ്റിക് അടയാളം തപാലിൽ അയക്കുന്നവർ അറിയിക്കേണ്ട
വിവരങ്ങൾ:**

1. അയക്കുന്ന ആളിന്റെ പേരും മേൽവിലാസവും
2. മീനിനെ കണ്ടെത്തിയ സ്ഥലവും തീയതിയും
3. മീനിന്റെ നീളം (ഇഞ്ചിലോ സെൻടിമീറ്ററിലോ)