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cadalmin

CMFRI Newsletter

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Minister of Home Affairs, Government of India



Dr. A. Gopalakrishnan, Director, CMFRI receiving Indira Gandhi Rajbhasha Puraskar (2014-15) from His Excellency, President of India, Shri. Pranab Mukherjee

see page 11



हर कदम, हर उमर
किसानों का हमसाफर
भारतीय कृषि अनुसंधान परिषद

Agrisearch with a human touch

Indian Council of Agricultural Research
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
P.B. No. 1603, Ernakulam North P.O., Kochi - 682 018, Kerala, India

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Published by

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DIRECTOR SPEAKS



Warm greetings to all.

An important nutraceutical, Cadalmin™ Antidiabetic extract (ADe) developed from seaweeds by the institute, was officially released on the ICAR Foundation Day celebrations held recently. Studies indicated this product as an effective inhibitor for type II diabetes

affliction and a potential source of relief to many suffering from this disease. During this period, we also successfully hosted the 4th Annual Review Meeting of the NICRA (National Innovations on Climate Resilient Agriculture) project in which a large number of scientists and researchers working on Climate Change related aspects in agriculture, animal husbandry and fisheries sectors in India participated. An innovative communication platform that facilitates interactions among the primary stakeholders such as the fishermen and the scientific fraternity to understand and tackle the problems facing the sector in a better way was also launched in the Institute. On request of the Fisheries Department of the Govt. of Kerala the Minimum Legal Size (MLS) of 57 species were fixed, based on the analysis of the databases available in the institute. It is heartening to note that the MLS recommended by the institute that strives to promote sustainable fisheries, has been implemented for 14 major species through a government notification in July 2015. The deployment of Artificial Reef modules aimed at enhancing marine fisheries production in Tamil Nadu is being implemented by the State Fisheries Department with technical support from CMFRI and has found enthusiastic support among the fishermen. Regarding Official Language Implementation, the Indira Gandhi Rajbhasha Puraskar for the year 2014 -15 was awarded to the institute for its commendable achievements. During the period, the staff of the institute have actively participated in National programmes such as *Swachh Bharat*. The institute also pays respectful homage to its former Director, Dr. S. Z. Qasim who passed away recently.

A. Gopalakrishnan
Director

About CMFRI

The Central Marine Fisheries Research Institute, Kochi, is a premier research Institute under the Indian Council of Agricultural Research, devoted to research and training in marine fisheries and mariculture.

CMFRI has three Regional Centres viz., Mandapam Camp, Visakhapatnam and Veraval and seven Research Centres located along the Indian coastline, catering to the marine fishery policy needs of all maritime states of the country.



Cadalmin™ Antidiabetic extract (ADe) from seaweeds released



Release of Cadalmin™ Antidiabetic extract (ADe) at the ICAR Foundation Day celebrations

Cadalmin™ Antidiabetic extract (ADe), a nutraceutical product developed from seaweeds by the institute with activity against type-II diabetes was released by the Hon'ble Union Minister of Agriculture, Shri Radha Mohan Singh on 26th July 2015 at a function held in Patna during the ICAR Foundation Day. *In vitro* anti-diabetic experiments showed that the active principles effectively inhibited dipeptidyl dipeptidase, tyrosine phosphatase, amylase and α -glucosidase. The results demonstrated the potential of the nutraceutical to effectively inhibit the mediators, which are responsible to induce type-II diabetes through various metabolic pathways. The product developed from seaweed was compared

with that of standard drugs after administering the animals with streptozotocin (a diabetes inducer). The diabetic control had glucose level recorded at greater than 380 mg/dL, whereas the blood glucose levels maintained at about 74 mg/dL (at 65 mg/kg body weight), when the animals were administered with the bio active pharmacophores. The HbA1c levels maintained at about 4.6% (normal range 4.3-6.3%) after administering the animals with the nutraceutical product. Pre-clinical trials showed no toxicity related significant changes in the renal or hepatic functions, hematological indices and serum biochemical parameters in the experimental subjects. The results also demonstrated a lack of test substance-

related general organ or systemic toxicity and hypoglycaemic disorders following oral administration at a dose as high as 2000 mg/kg/d. The active ingredients have been encapsulated in hydroxypropyl methylcellulose shells (hypromellose) replacing the animal derived gelatin in an attempt to improve their greater *in vivo* dissolution over hard gelatin capsules. The hydroxypropyl methylcellulose was adopted due to the drawbacks associated with the cross-linking of gelatin and drug incompatibilities and the strict regulations regarding the use of animal derived gelatin requiring the absence of bovine spongiform encephalopathy/transmissible spongiform encephalopathy. Time dependent shelf life studies were conducted to identify the oxidative changes for the product in an accelerated shelf-life study, which revealed no significant reduction of the anti-diabetic activities and the content of bio-active principles of the nutraceutical at the end of study period. Large scale extraction of the active principles from the raw material was optimized in a factory unit. The total yield of the active principles from the raw material in the factory unit was found to be greater than 20%, which demonstrated the commercial feasibility of the nutraceutical product. The product is being out licensed to an identified biopharmaceutical company.

(Reported by Marine Biotechnology Division)



Hon'ble Union Minister for Agriculture Shri. Radha Mohan Singh being presented with the nutraceutical product developed from seaweeds by Dr. S. Ayyappan, DG, ICAR

NICRA Annual Review Meeting hosted at Kochi

The fourth Annual Review Workshop of the network research project entitled National Innovations on Climate Resilient Agriculture (NICRA) was held at CMFRI during 13th-14th August, 2015. The meeting was attended by 186 delegates from 34 ICAR Institutes including State Agricultural Universities (SAU). The workshop was inaugurated by Dr. S. Ayyappan, Secretary, DARE & Director General, Indian Council of Agricultural Research (ICAR), New Delhi on 13th August, 2015. Deputy Director General (DDGs) of respective Subject Matter Divisions (SMDs) of ICAR, Vice Chancellors of SAUs, Directors of ICAR institutes and other senior officers also attended. CMFRI was honoured as one among the four best performing institutes under the NICRA project during the current year.

5 concurrent technical sessions were held that were chaired by Dr. A.K. Sikka, DDG (Natural Resource



Inauguration ceremony of the NICRA Annual Review Workshop

Management), ICAR, Dr. A.K. Singh, Vice Chancellor, RVSKVV, Dr. B.Venkateswarlu, Vice Chancellor,

VNMKVP, Dr. A.K. Singh, DDG (Agriculture Extension), ICAR, Dr. S.M. Virmani, Chairman, Expert Committee for Sponsored & Competitive Grants component, Dr. J. S. Sandhu, DDG (CS), ICAR and Prof. M. Uday Kumar, Member, Thematic Expert Committee. The session on Fisheries was chaired by Dr. K. K. Vass, Member, NICRA Expert Committee for Sponsored & CG Component. The meeting concluded with a Plenary Session chaired by Dr. S.M. Virmani. Other dignitaries present were Dr. A. K. Sikka, Dr. Ch. Srinivasa Rao, Director, CRIDA and Dr. N. K. Krishnakumar, DDG (Horticulture Science) besides Dr. A. Gopalakrishnan, Director, CMFRI.



Dr. A. Gopalakrishnan, Director and Dr. P. U. Zacharia, PI, NICRA (CMFRI) being felicitated by Dr. S. Ayyappan, DG, ICAR

Minimum Legal Size (MLS) implemented by Govt. of Kerala

Based on studies made by CMFRI scientists, the institute recommended Minimum Legal Size (MLS) for 58 commercial species of finfishes and shellfishes last year to the Government of Kerala. The government has now notified vide GIO (P) No. 40/15/

F&PD dated 24.7.2015 the MLS for 14 species as a first step to prevent juvenile fish exploitation in Kerala. Seen as a fisheries management tool with the ability to protect juvenile fish, maintain spawning stocks and control the sizes of fish caught MLS sets the smallest size at which a particular

species can be legally retained if caught. Implementing the same would increase the economic efficiency of the fishery besides affording protection to juveniles and allowing them to grow in weight and length.

Under the NICRA project, the demonstration of Integrated Multi Trophic Aquaculture (IMTA) by integrating the seaweed *Kappaphycus alvarezii* with cage farming of cobia at Munaikadu (Palk Bay) in a participatory mode with fishermen group was successful. After 45 days of culture period, on 17th September 2015, the first cycle of seaweed was harvested. The seaweed rafts integrated with the cobia cage showed a growth of 4640 kg wet weight from the initial weight of 1200 kg, whereas the total seaweed harvested from the rafts which were kept at one meter depth (without integration) was 600 kg wet weight from the initial weight of 300 kg. It was observed that the seaweed rafts integrated with cobia cage had a better average yield of 290 kg per raft compared to 150 kg per raft which were not integrated. An addition of 140 kg of seaweed per raft was thus achieved due to the integration with the cobia cage farming. Out of 5240



Scientists and farmers holding the harvested rope of seaweed from the rafts which were integrated with cobia farming cages

kg of total seaweed harvested from 20 rafts, 1500 kg will be utilized as seed material for next cycle. The remaining 3740 kg were sold @ ₹ 10 per kg of fresh weight by which they could realize an income of ₹ 37400/-. The fishermen group expressed their thanks to Mandapam

Regional Centre of CMFRI for helping them get a good harvest of seaweed after many years.

(Reported by A. K. Abdul Nazar, R. Jayakumar, G. Tamilmani, M. Sakthivel, P. Rameshkumar, Johnson, B., Amir Kumar Samal & K. K. Anikuttan, Mandapam Regional Centre)

Successful sea cage farming by fishermen Self Help Groups

The Ramanathapuram district administration of Tamil Nadu under State Balanced Growth Fund assisted 10 fishermen Self Help Groups (SHGs) to take up sea cage farming of cobia with 90 per cent

subsidy assistance extended for two cages per group. All the 10 groups initiated the farming during March to May 2015. Mr. Ephrem, one of the beneficiaries initiated sea cage farming of cobia at



Shri. K. Nanthakumar, IAS, District Collector, Ramanathapuram, Shri. M. Kasinathapandian, Deputy Director of Fisheries and Dr. R. Jayakumar, Senior Scientist along with the beneficiary holding the harvest

Marakayarpattinam in March 2015 and the first partial harvest of cage farmed cobia was carried out on 23rd September 2015. Shri. K. Nanthakumar, IAS, District Collector, Ramanathapuram flagged off the harvest. The partial first harvest of 100 kgs of cobia whose average weight was 1.5 kg received a farm gate price of ₹ 250 / kg. Harvest of the remaining cobia fishes will be continued in subsequent days. As a result of the initiative taken up by the institute in popularizing the sea cage farming of cobia, about 16 groups have currently adopted the sea cage farming of cobia in 43 cages in this region.

(Reported by A. K. Abdul Nazar, R. Jayakumar, G. Tamilmani, M. Sakthivel, P. Rameshkumar, Johnson, B., Amir Kumar Samal, K. K. Anikuttan & S. Chandrasekar, Mandapam Regional Centre)

Transportation of Cobia and Silver pompano fingerlings

A total of 42825 fingerlings of Silver pompano were supplied to fish farmers/ entrepreneurs from Andhra Pradesh and Kerala state during the period July to September 2015. In addition 10000 and 1,200 fingerlings of Silver pompano were also supplied to Veraval Research Centre of CMFRI and CIFE, Rohtak Centre respectively. In the same period a total of 585 fingerlings of cobia were supplied to fish farmers in Tamil Nadu.

Successful marketing of farmed mussel by SHG

One of the Women Self Help Groups (WSHGs) of Puthenvelikkara who used to do oyster farming in the coastal region, started mussel farming in 2014-15 and successfully harvested 1200 kg of mussel which was sold as depurated and heat shucked meat, packed in either half shell or without shell in trays.



Dr. K. S. Mohamed, Head, Molluscan Fisheries Division, giving the sales profit to Aiswarya SHG

Artificial reef modules deployed

Artificial reef modules were deployed at 17 sites along the north Tamil Nadu coast under the consultancy project "Installation of artificial reefs in the inshore waters of 17 villages along Tamil Nadu coast" for the Tamil Nadu Fisheries

Department during June-September 2015. The sites included three villages in Thiruvallur district, four villages in Kancheepuram district, two villages in Cuddalore district, five villages in Nagapattinam district, two villages in Pudukottai district and one village in

Thoothukudi district. Two hundred modules were deployed at each site.

(Reported by Joe K. Kizhakudan, K. Vijayakumaran, Shoba Joe Kizhakudan, R. Geetha, S. Mohan and R. Sundar, Madras RC)



Vessels loaded with artificial reef modules for deployment

Rare occurrence of natural pearl from Gulf of Mannar after the pearl fishery ban

Pearl oysters (*Pinctada fucata*) from Kayalpattinam, Gulf of Mannar, were landed as a by-catch in the bottom set gill net at a depth of 4 m and collected for tissue culture studies. During mantle tissue dissection, a good lustrous, round pearl of 1.5 mm size was found in the mantle fold of a

pearl oyster. Formation of natural pearl in a mollusc is an accidental event influenced by the environment. The chances of a perfect natural pearl are one in a million. Natural pearls produced by the pearl oysters from the Gulf of Mannar is considered to be the best "Orient Pearls" and highly

valuable. As Pearl Oyster fishery is banned since 1961, natural pearls have not been recorded for decades.

(Reported by C. P. Suja, Bridget Jeyatha, W., Koncies Mary, B., and Jensi Ponnalar, J., Tuticorin RC)

Indian Pompano matures in captivity

Two females and the male of Indian Pompano (*Trachinotus mookalee*) of 3.5 - 4 kg kept in the Recirculatory Aquaculture System at Vishakhapatnam Regional Centre attained maturity within 3 months of captivity. This will significantly help in the development of land-based broodstock maintenance systems.

First success in larval rearing of Winged pearl oyster

The genus *Pteria*, commonly called as Winged pearl oysters are traditionally known for mabe pearl industry due to its lustrous mother of pearl. *Pteria breviaalata* collected from Gulf of Mannar for tissue culture spawned naturally after 24 hours of collection. The fertilized eggs were transformed to morula stage after 4 hours (h) and D shaped larvae or veliger of 50 μm size after 24 h. About

120,000 larvae were kept in plastic troughs with a stocking density of 2 larvae/ml after collecting through a 30 μm sieve. Marine microalgae, *Isochrysis galbana*, *Pavlova lutheri* and *Chromulina freiburgensis* were given as feed separately. Early umboic stage of size 90 μm was observed on day 7, eye spot stage (150 μm) on 17th day, pediveliger (190 μm) on 19th day, plantigrade

(250 μm) on 21st day and became spat of 270 μm on 23rd day. As the population of pearl oysters *Pinctada fucata* is dwindling, the common occurrence of *Pteria* sp. in Gulf of Mannar and the knowledge on hatchery larval rearing techniques of this species will help to sustain as an alternate species for pearl industry.

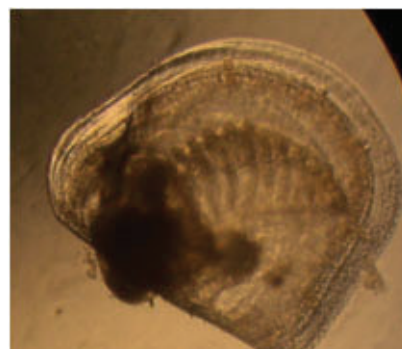
(Reported by C. P. Suja, J. Jeni Ponmalar, W. Bridget Jeyatha, and B. Koncies Mary, Tuticorin R. C.)



D - shaped larvae



Pediveliger



30th day spat

Nursery rearing trials of Silver pompano in inland low-saline waters

Demonstration of Silver pompano (*Trachinotus blochii*) farming in shrimp ponds along Gujarat coast by CMFRI attracted much attention from the local farmers and entrepreneurs. It is emerging as an alternative candidate species especially during the winter months when shrimp farming is discontinued due to poor growth rates. High demand for this fish in the major cities probably due to its meat quality and resemblance to pomfrets, a highly preferred fish in the region is a major driver for increased interest in farming of Silver pompano. Trials carried out

to ascertain the possibilities of farming in high saline shrimp ponds during the winter has now been extended to low saline inland water bodies also. To standardize the nursery rearing and grow-out farming protocol 10,000 pompano seeds were airlifted to Veraval. These were acclimatized and released in to cement tank with a dimension of 20 x 5 x 2 m. Very good survival rate was recorded even after transportation period of more than 36 hrs. Nursery rearing of the seeds is in progress in the shrimp ponds in Dhari, Veraval.



Acclimatization of Silver pompano seeds

(Reported by Divu. D, K. Mohammed Koya Suresh K. Mojjada, Vinay Kumar Vase., Gyanaranjan Dash, Sreenath K. R. and Mahendra D. Fofandi)

Stranding of Baleen whales off the coast of Karnataka

Baleen whales were found stranded in the beaches of coastal Karnataka. The first incident in the year was reported from Ullal beach on 23.7.15 followed by Thannerbhavi Beach and Bhatkal Beach on 30.7.15 and Malpe beach on 6.8.2015. All the four whales stranded were in a highly decomposed condition, indicating that it was already dead or injured in the sea and brought to shore by the force of the monsoon current. The length of the stranded whales ranged between 12 and 15m.



Carcass of Baleen whale stranded on Malpe Beach

Feasibility study for cage culture of carangids

The suitability of *Caranx sexfasciatus* (Bigeye trevally), was evaluated for brackish water aquaculture in Karnataka. Seeds (50 to 85g) available in plenty in the Uppunda Estuary were collected and stocked in two cages (4×2×2m) made of Netlon (30 mm mesh) lined with nylon net. Stocking was done @ 300 numbers per cage and fed with

low value clupeid fishes @ 6-8% of their body weight. After a culture period of 150-180 days, they reached an average size of 300 – 450 g. At the end of six months, about 150 kg of fish was harvested with survival rate of around 90%. The growth rate observed is very encouraging and having good market demand fetches a price of ₹ 350 - 400/kg. This is the

first instance when the live seeds of Bigeye trevally collected from the wild have been grown in cages. Observations indicate it to be a suitable species for mariculture in cages in inshore areas.

(Reported by K. M. Rajesh, Sujitha Thomas, A. P. Dineshbabu, Prathibha Rohit and G. D. Nataraja, Mangalore RC)

Micron meshed cages effective for nursery rearing of Pearl oyster spat

The Pearl oyster, *Pinctada fucata* is of significant value due to the higher demand and price for marine pearls. Nursery rearing trials using hatchery produced spat focusing on production of Pearl oyster seed at a lower-cost were conducted. At the end of 45 days rearing in one tonne capacity FRP tanks at a stocking density of 50000 numbers per tank the oyster spat reached average dorsoventral measurement (DVM) of 4.12 mm, average hinge length (HL) of 4 mm and an average weight of 0.005 g. For nursery rearing trials, spat from 3 tanks were transferred to micron meshed cages at a stocking density of about 50000 per cage. The cages of dimensions 60 x 16 cm (length x diameter) and a mesh size of 3mm were hung from a raft system



Pearl oyster spat reared in micron meshed nursery cage

in Vizhinjam Bay. After one month, the spats grew to an average DVM of 5.24 mm, average HL of 4.82 mm and an average weight of 0.0092 g with more than 95% survival. On the other hand the spats reared in

hatchery did not show much increase in growth (average DVM of 4.3 mm, HL of 3.9 mm and an average weight of 0.0042 g) compared to the spat in cages.

(Reported by Vizhinjam RC)

Black lip pearl oyster stocks transported from Andamans

Twenty live specimens of *Pinctada margaritifera* collected with the help of divers from oyster beds near Marine Hill, Port Blair in Andaman and Nicobar Islands, during the first week of September were airlifted to Chennai and are being maintained at Kovalam field laboratory for

experiments on *in vitro* pearl production. The size of the oysters ranges from 65 to 86 mm. The oysters have been stocked in individual baskets suspended within FRP tanks with proper aeration and water exchange, to enable the cleaning of tanks without disturbing

them. The oysters are being fed with mixed algal cultures thrice daily and the oysters are cleaned once in 15 days. All twenty oysters are in healthy state.

(Reported by Srinivasa RaghavanV., Vidya Jayasankar and Indira Divipala, Madras RC)

Sharptail mola landed at Vizhinjam

On 2nd July 2015 a specimen of Sunfish, *Masturus lanceolatus* (Sharptail mola) was caught in a gill net (Roll vala) operated off Vizhinjam. Also known as the ocean sunfishes landing of *M. lanceolatus* is very rare

along the Indian coast. The specimen was a male, 121 cm in total length and weighing 43.5 kg. It is similar in appearance to the *Mola mola*, but can be distinguished by the projection on its clavus (pseudo-tail).



Sharptail mola landed at Vizhinjam Fishing Harbour

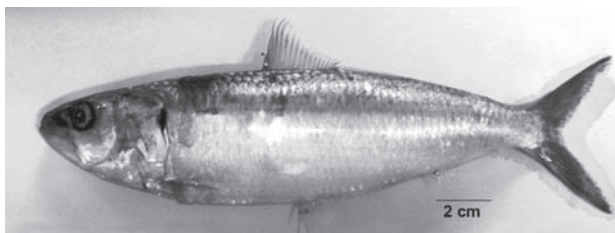
Indian Oil sardines show a nutritionally superior fatty acid profile

The Oil sardine (*Sardinella longiceps*) is a rich source of long-chain polyunsaturated fatty acids (PUFAs), mainly eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) forming 14.84 and 8.65% respectively of the total fatty acids (TFA). The mean total saturated fatty acids (SFA) were significantly greater in Oil sardine (~ 39% TFA) sourced from Oman compared to that of

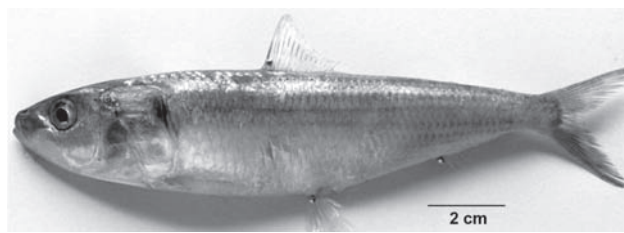
Indian origin (35.8 % TFA). A similar trend was observed for total MUFA (monounsaturated fatty acid) of the samples from Oman and India (37.29 and 30.34% TFA, respectively). Among SFAs, 16:0 was found to be the highest in both the samples (24% in Oman sardine and 21% TFA in Indian oil sardine). Among the MUFAs, 18:1n-9 was identified as the dominant fatty acid ranging from 23%

TFA (Oman) and 13% TFA (India). A greater level of mean total PUFA was observed for sardine (~30% TFA) from India than that from Oman (~21% TFA). The higher PUFA/SFA (0.83) and n-3/n-6 fatty acids (6.03) in the oil sardine from India than those of Oman origin (0.53 and 4.47 respectively) demonstrate its superior nutritional qualities.

(Reported by Marine Biotechnology Division)



Oil sardine from Oman



Indian Oil sardine

A new communication platform "Kadal Anubhavangal"

An innovative communication platform titled "Kadal Anubhavangal" for learning from stakeholders was launched in the institute. Organised by the Socio Economic Evaluation and Technology Transfer (SEETT) Division the objective is to break the disconnect between the research system and the stakeholders by providing an arena to the stakeholder to share his or her experiences, concerns and suggestions for ensuring a sustainable future for the fishing industry. The first talk in the series organized on 9th July 2015 was delivered by Mr. Jossy Palliparambil, a mechanized boat owner based at Munambam and well known for his stakeholder induced initiatives in Responsible Fisheries. He made a fervent call for conservation oriented policy instruments, incentive



Dr. Madan Mohan, former ADG (Marine Fisheries), ICAR felicitating Mr. Jossy

mechanisms and institutional reforms in the sector. Mr. Jossy was also felicitated on the occasion. Dr. R

Narayanakumar, Head, SEETTD Division proposed the vote of thanks.

New Facilities

A hundred ton capacity Recirculatory Aquaculture System (RAS) has been commissioned at the Karwar Research Centre. The RAS has pressure sand filter, drum filter, protein skimmer and biological filter with a recirculation capacity of 100 tons per hour. This is the only such indigenously built RAS of 100 t capacity in the country.



DBT sponsored training programme in molecular biology and biotechnology for fisheries professionals



Inauguration of the training programme by Dr. A. Gopalakrishnan, Director

First batch of the DBT sponsored National training in Molecular biology and Biotechnology for fisheries professionals (July to September) organized by the Marine Biotechnology Division concluded

on 30th September, 2015. Scientists and professionals from National Institutes attended the programme. Various sessions included lectures by experts, hands on training and field visits. Trainees were given an

individual research project in order to enhance the skill and overall competence. The training programme was co-ordinated by Dr. P. Vijayagopal, Principal Scientist.

Climate Change Awareness Programmes

The Belmont Forum funded project "Global Understanding and Learning for Local Solutions: reducing vulnerability of marine dependent coastal communities" conducted the second Awareness Workshop in

Elamkunnappuzha village on 7th of August 2015. Primarily to sensitize school children, the Elamkunnappuzha Government Higher Secondary School and Santa Cruz Higher Secondary school, Puthuvype were

chosen. The event also had the releasing of Belmont Team India's Climate education publication series "ClimEd Series- Learning & Coping Climate Change" by the President and ward members.



Painting competition for school children on theme Climate Change



Release of ClimeEd series for awareness creation

Exhibitions

The Mangalore Research Centre organized exhibitions at

- 'Pilikula Vignana Mela' a two-day science festival Mangalore from 18th and 19th September, 2015; and at the Krishi Vigyan Kendra, Mangalore Fisheries College, Yekkuru, Mangaluru in collaboration with the NRC for Spices, Agricultural and Horticultural departments on 28th September, 2015.

Indira Gandhi Rajbhasha Puraskar (2014 -15) bagged

The Indira Gandhi Rajbhasha Puraskar for the year 2014-15 for excellent work and commendable achievements in the field of Official Language Implementation Policy of the Union was received by Dr. A. Gopalakrishnan, Director from His Excellency President of India Shri.

Pranab Mukherjee. The awards ceremony was held on 14th September 2015 at Vigyan Bhavan, New Delhi. Smt. E.K.Uma, Asst. Chief Technical Officer (Hindi) also attended the function.

Hon'ble Union Minister for Home Affairs Shri. Rajnath Singh, Union

Minister of State for Home Affairs Shri. Kiren Rijiju, Minister of State for Home Affairs, Shri. Jitendra Singh and Shri. Girish Sankar, Secretary, Department of Official Language, Govt. of India were also present on the occasion.

Hindi Chetana Maas Celebrations 2015 at various Centres

At Veraval RC 'Hindi fortnight-2015' was held from 16th to 30th September 2015 in order popularize use of Hindi in official dealings. Different competitions were conducted with active participation of staff. The valedictory function was conducted on 30th September, 2015 which was presided by the Shri. C. Muralidharan, Chief Administrative Officer, CMFRI. At Madras Research Centre it was held from 5th-9th October 2015 and several competitions were held for the staff of the centre who participated with great enthusiasm.

Hindi Chetana Maas was celebrated at Mumbai Research from 14th-30th September 2015. At Vizhinjam Research Centre celebrated Hindi fortnight Celebrations were held from 14th to 27th September 2015.

The valedictory function was organized on 28th September 2015, where the chief guest, Mr. P. K. Kushwaha, Commanding Officer, Coast Guard station, Vizhinjam distributed prizes to the winners of various competitions conducted.

At Mangalore RC Hindi day was celebrated on 30th September 2015. The chief guest Shri. Santosh Kumar, Officer, Telecommunications department distributed prizes to winners of various competitions held on the occasion. A Hindi workshop on Policies pertaining to the use of Hindi in Central Government Departments was also held on the same day.

At the Mandapam Regional Centre Hindi Week 2015 was celebrated from



Shri. C. Muralidharan, CAO presenting prizes to winners at Veraval Regional Centre

14th to 21st September, 2015 with various programmes and the valedictory function was held on 21st September 2015. A Hindi Workshop for the staff on spoken Hindi was also conducted on 25th September 2015.



Hindi Week Celebrations prize distribution ceremony at Chennai



Hindi Week Celebrations prize distribution ceremony at Mandapam

Dr. Molly Varghese, Principal Scientist, Marine Biodiversity Division, CMFRI received Kendriya Sachivalay Hindi Parishad's All India Scientific & Technical Article Puraskar (Non-Hindi Speaking Region) for her research article entitled "New records of Fishes from Gulf of Mannar, India" in a function organized at New Delhi on 7th August 2015. The award includes a Trophy, Certificate and a cash prize.



Dr. Molly Varghese receives the award



As per the directives of the Council's Circular F.No.21-46/2014-CDN dated 03rd December, 2014, regarding the launch of National Sanitation Campaign (Swachh Bharat Abhiyan) by Hon'ble Prime Minister of India in ICAR, a special drive to conduct awareness among public during the period from 25th September to 11th October, 2015 was conducted. The participants included scientists, technical, administrative, skilled support staff and research scholars of CMFRI at Headquarters and various



Cleaning of Mangalavanam premises at Kochi



Swachh Bharat awareness campaign carrying placards

Regional / Research Centres.

At Headquarters, staff participated in cleaning drives carried out in bus shelters, fishing harbours, schools, parks and other public places. Cleaning was carried out in the office premises of Madras Research Centre, Kovalam Field Laboratory and the Field Centers of CMFRI, Chennai by all staff. At Mandapam Regional Centre from 25th September, 2015 to 11th October, 2015 cleaning of office and work places was undertaken on all the afternoons for two hours from 1400 - 1600 hrs. Karwar Research



Cycle rally as part of awareness campaign at Kochi



Cleaning of Cochin Fisheries Harbour

Centre actively participated by cleaning the premises of main office and hatchery complex, and cleaning the sides of National Highway led by Dr. K. K. Philipose, Scientist-in-Charge along with the staff members. Cleaning of NH 17 evoked keen interest from the local public, that they also joined the campaign with equal enthusiasm. All the employees of Vizhinjam Research Centre spared at least two hours in a week to clean the campus, aquarium, hatchery and adjacent areas led by Scientist-in-Charge, Dr. M. K. Anil special efforts were made to utilize all the biodegradable waste produced in the office for composting. The compost was used in gardening and also for growing organic vegetable in the office backyard. Inspired by the campaign, visitor's made special appreciation and good comments in the visitor's diary. An awareness campaign by conducting a cycle rally was held on 11th October, 2015 at Kochi



Cleaning of beaches at Chennai



Cleaning drive at Mandapam Regional Centre



Cleaning activities at Veraval



Cleaning drive at Tuticorin RC



Cleaning of Campus at Vizhinjam RC

Recreation Club Activities

Independence Day Celebrations



Hoisting of national flag at HQ



Cultural programmes at Mandapam Regional Centre

Onam Celebrations



Delegation from UAE visits Mandapam RC

Armed Forces Co-operative Society from United Arab Emirates, (AFCS, UAE) interested in adoption of cage culture technology developed by the Institute to produce high value marine finfishes visited India. In this connection, Dr. P. Das, Former DDG, Extension (ICAR) and Dr. Pradhan, Director, International Traceability System Ltd. visited Mandapam RC during 3rd to 7th July 2015 and held an interaction meeting to study the feasibility of Seabass and Cobia farming in the UAE. Dr. K. K. Philipose, Scientist-in-Charge, Karwar Research Centre & National Co-ordinator, AINP on Mariculture. Dr.

Boby Ignatius, Dr. A. K. Abdul Nazar (CMFRI), Dr. Varghese John, National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT), Dr. Zynudheen A.A., Central Institute of Fisheries Technology (CIFT) and scientists of Mandapam Regional Centre participated in the deliberations. Field visit to cage farm and hatchery were made and a pre-feasibility report was prepared.



UAE delegates visit to cage farm

- **Dr. Robert Alfred Selvakumar**, Former ADG (M. Fy.), ICAR & Member, RAC, CMFRI visited Mandapam Regional Centre during 30th July to 2nd August 2015.
- **Dr. G. Syda Rao**, Former Director, CMFRI visited Mandapam Regional Centre during 7th to 8th September 2015.
- **Dr. T. S. Dange**, Director, Gulf of Mannar Biosphere Reserve Trust (GOMBRT) visited Mandapam Regional Centre on 24th July 2015.



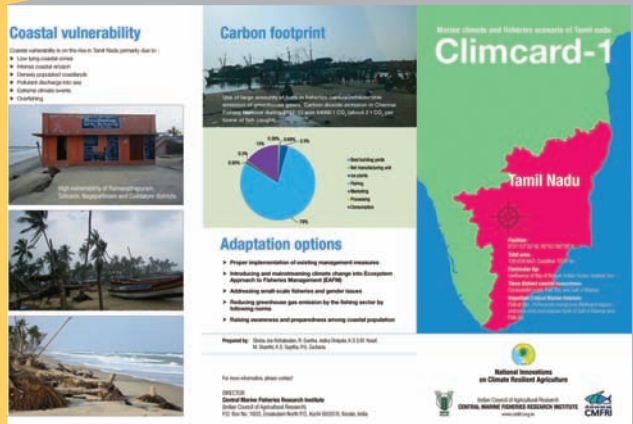
Dr. G. Syda Rao, Former Director, CMFRI visited the ornamental fish hatchery at Mandapam run by an entrepreneur under the technical guidance of Mandapam Regional Centre



Dr. T. S. Dange, Director, GOMBRT viewing the Marine Coral Reef Aquarium

Awards

- ICAR instituted Jawaharlal Nehru Young Scientist Award for outstanding Ph.D. thesis in Fisheries Science 2014 was bagged by Dr. P. A. Vikas, Subject Matter Specialist with Ernakulam Krishi Vigyan Kendra. The recognition is for conducting qualitative assessment and development of superior Indian strain of *Artemia* following selective breeding method as an alternative for exotic *Artemia* which are imported by Indian Aquaculture industry spending crores of rupees. Dr. P. A. Vikas completed his research under the guidance of Dr. P. C. Thomas, Principal Scientist (Retd.), CMFRI.
- Mrs. Anulekshmi Chellappan was awarded Doctor of Philosophy (Ph.D.) in Fisheries Resource Management by ICAR-Central Institute of Fisheries Education (Deemed University), Mumbai for her work on the topic "Fishery Bionomics and Stock Assessment of Coastal Tunas of Maharashtra Coast" under the guidance of Dr. S. K. Chakraborty, ICAR-CIFE, Mumbai.
- Dr. Gidda Maheswarudu, Principal Scientist & Head, Crustacean Fisheries Division was conferred with Charles Darwin Research Award - 2015 in Zoology & Fellow, IASR (International Agency for Standards and Ratings) for outstanding scientific contributions by IASR, Photon Foundation.



Marine climate and fisheries scenario of Tamilnadu 'Climcard-1'



Indigenous Technical Knowledge (Malayalam)



ClimFish NICRA Newsletter, CMFRI, Kochi



Entrepreneurship Development Programme-2015



LOBSTER RESOURCES OF INDIA



Elastobranch resources of the southwest coast of India



SHARKS OF THE INDIAN EAST COAST



PROTECTED ELASMOBRANCH SPECIES OF INDIA

Biological management of aquatic weeds in public ponds demonstrated

KVK commenced demonstration of aquatic weed management in public ponds by growing Grass carp (*Ctenopharyngodon idella*) which feeds on aquatic weeds up to the extent of 2 to 3 times of its body weight and grows upto 50kg. Since this fish cannot breed in the ponds, its management is easy. A pond of 1 acre size filled with aquatic weeds requires only 20 Grass carps and the fish seeds are available in the market. The programme was inaugurated on 21st July 2015 in a pond at Kodamkulam, Thripunithura, Kochi by Chairman of Thripunithura



Inauguration of stocking of pond with Grass carp

Municipality, Shri. R. Venugopal and Dr. A. Gopalakrishnan, Director, CMFRI. Feedback received indicates

that the programme has been very successful in the natural control of aquatic weeds in the pond.

'Fishlizer' - an organic fertilizer from marine fish wastes launched

A new organic fertilizer from marine fish waste - 'Fishlizer' was launched by Dr. A. K. Singh, Deputy Director General (Agricultural Extension) ICAR on 14th August 2015 at CMFRI. Produced through the microbial degradation of marine fish waste in coir pith medium, a waste product from the coir industry it contains all essential elements for plant growth and enhances flowering and fruit setting in plants. It is being sold through the CMFRI-ATIC-KVK Sales Counter in Kochi.



Launch of Fishlizer at CMFRI

International trainees at KVK partner farmer fields



As part of US-INDIA-AFRICA Triangular International Training Programme on "New Dimensions in Agricultural Extension Management" organized by National Institute of Agricultural Extension Management (MANAGE), Hyderabad, four Extension Functionaries from Kenya, Malawi and Liberia visited KVK partner farmers Pokkali fields on 11th August 2015.

- **Dr. A. Gopalakrishnan**, Director attended the ICAR Foundation Day ceremony and National Conference of Krishi Vigyan Kendras at Patna on 25th & 26th July 2015

Attended the first meeting of the Committee constituted to suggest Draft National Policy on Marine Fisheries under the chairmanship of Director General, ICAR at Krishi Bhavan, New Delhi on 6th August 2015.

Participated in the AquaNOR and Joint Working Group meeting at Trondheim, Norway from 16th to 22nd August 2015 as a part of Indian Delegation to Norway.

Received the Indira Gandhi Rajbhasha Award from His Excellency President of India Shri Pranab Mukherjee for the excellent work and commendable achievements in the field of Official Language Implementation Policy of the Union in the Award function held at Vigyan Bhavan, New Delhi on 14th September 2015.

Attended the meeting for finalizing the questionnaire on Marine Fisheries Policy for India with DG, ICAR and Joint Secretary (Fy), DAHD&F on 17th and 18th September 2015.

- **Dr. K. S. Mohamed**, Head, MFD conducted an expert session on the subject "Responsible fisheries, conservation, marine legislation, FAD & PFZ in the SCERT training to empower VHSE Fisheries teachers at Lay Convention Centre, Kovalam, Trivandrum on 3rd July 2015.

Attended the CMFRI-Trawl Fisheries Association Interface Meeting on 4th July, 2015 at CMFRI, Kochi.

Attended the review meeting under the Indo-German Technical Cooperation project entitled "Incentives for Sustainable Management of Biodiversity and Ecosystem Services" during 21st-22nd July, 2015 at Ministry of Environment, Forests and Climate Change, New Delhi.

Attended the First Meeting of the Committee constituted for Draft National Policy on Marine Fisheries on 6th August 2015 at New Delhi.

Participated in the CMFRI-BOBLME workshop on Ecopath modeling for Indian East Coast, during 11th-13th August 2015 at Visakhapatnam RC of CMFRI.

Participated in the Training Workshop on "Stock Assessment Techniques and Ecosystem Modeling" during September 16th-22nd, 2015 as an expert and delivered lectures on "Ecosystem Modeling using ECOPATH and ECOSIM" at INCOIS, Hyderabad.

- **Dr. Veerendra Veer Singh**, SIC, Mumbai RC attended 17th six monthly meeting of Nagar Rajbhasha Coordination Committee (North region) at ICAR-CIFE, Mumbai on 18th August, 2015.

Represented CMFRI in Mumbai District Advisory Committee meeting organized by Department of Fisheries, Maharashtra on 13th July, 2015.

- **Dr. M.K Anil**, SIC, Vizhinjam RC, attended the final meeting of Livelihood Impact Appraisal Committee on Rehabilitation and resettlement of Project affected persons of Vizhinjam International Seaport on 9th September 2015 at Collectorate, Thiruvananthapuram.

- **Dr. Shubhadeep Ghosh**, Senior Scientist-in-charge Visakhapatnam Regional Centre attended the Advisory Committee meeting of the NBSFARA "Stock characterization, captive breeding, seed production and culture of hilsa (*Tenualosa ilisha*)" project at CIFRI, Barrackpore from 05th-08th August, 2015

- **Dr.R.Narayanakumar**, Head SEETTD attended the TEEB India Initiative Review Workshop at New Delhi, 21st-22nd July and presented the final report of the project.

Attended the Meeting of the Nodal Officers of the Krishi Portal of the ICAR Institutes during 4th-5th August at New Delhi.

- **Dr. Sekar Megarajan**, Scientist, attended a one day "Awareness program with stakeholders of aquaculture sector" conducted by the Andhra Pradesh State Dept of Fisheries at Vijayawada on 25th June, 2015 and gave a talk titled "Scope for alternate species for coastal aquaculture".

- **Dr. Shubhadeep Ghosh**, Senior Scientist and **Sri. M. Satish Kumar**, Technical Assistant attended a one-day workshop on "Deep Sea Fishing with Stakeholders of Marine Fisheries Sector" organized by the Department of

Fisheries, Andhra Pradesh on 06th July 2015 at Visakhapatnam.

- **Mr. Pralaya Ranjan Behera**, Scientist attended a one day meeting on "Scope of Marine Leasing Policy" and "Setting up of Fisheries Development Board for Andhra Pradesh" held at SIFT, Kakinada on 08th September, 2015.

- **Dr. Ritesh Ranjan** participated in the ICAR Regional Committee - II meeting held at CIFRI, Barrackpore, West Bengal on 19th September, 2015.

- **Dr. Prathibha Rohit**, **Dr. A.P Dineshbabu** and **Dr. Geetha Sasikumar** Principal Scientists attended the seminar on Marine Fisheries of Karnataka-Present Status and future Options organised by Coastal Development Authority and Government of Karnataka on 29th September 2015 at the KRC of CMFRI, Karwar.

- **Dr. A.K. Abdul Nazar**, Senior Scientist participated as Member- Fish, Fisheries and Aquaculture Sectional Committee, FAD 12 of Bureau of Indian Standards, Government of India, at CIBA, Chennai during 16th-17th July 2015.

- **Dr. A.K. Abdul Nazar**, **Dr. R. Jayakumar**, Senior Scientists participated in the workshop on 'Responsible fishing for sustainable conservation of fishery resources' organized by International Fund for Agricultural Development (IFAD) assisted Post Tsunami Sustainable Livelihoods Project (PTSLP) of Department of Rural Development & Panchayat Raj, Govt. of Tamil Nadu during 28th-29th September 2015.

- **Dr. R. Jayakumar**, Senior Scientist participated in the Steering Committee Meeting for Management of Palk Bay Resources at State Fisheries Department, Ramanathapuram on 4th July 2015.

- **Dr. M. Sakthivel**, Scientist attended the meeting GOI-UNDP-GEF funded Sindhudurg project on Cetaceans held at Mumbai on 14th July 2015.

- **Dr. B. Johnson**, Scientist attended the GOMBRT funded project review meeting 'Capacity building on seed production of selected marine ornamental fishes' at Mandapam on 24th July 2015.

Workshop/Training/Conference etc.	Date and Venue	Participants
General management programme for Scientists	6 th -17 th July 2015, ASCI, Hyderabad	Dr. P. Laxmilatha, Principal Scientist
Workshop on "Data Analysis for Research in Management and Social Sciences"	9 th - 11 th July 2015, Centre for Distance Education Anna University, Chennai	Dr. R. Geetha, Scientist
Write Shop on "Environmental Impact Assessment"	7 th - 9 th July 2015, ICAR-CIFE, Mumbai	Dr. V. V. Singh, Principal Scientist Mr. R. Ratheesh Kumar, Scientist
Workshop on "Aquaculture diversification towards boosting pond productivity and farm income"	8 th - 28 th July 2015, CIFA, Bhubaneswar	Dr. Vikas P. A., Technical Officer, KVK Subject Matter Specialist (Fisheries)
Quantitative Research, Techniques and Analysis using 'R' Methods	17 th -19 th August 2015, Christ University, Thiruvananthapuram	Mr. Vinaya Kumar Vase, Scientist
Competence enhancement training programme for technical officers	19 th - 28 th August 2015, NAARM, Hyderabad	Dr. M.P Paulton, Technical Officer Dr. Biswajith Dash, Senior Technical Officer
Training on "Geospatial analysis of natural resources management using statistical tools"	2 nd - 11 th September 2015, NAARM, Hyderabad	Dr. A. P Dineshababu, Principal Scientist
Training on "Fishery stock assessment and ecosystem modeling"	16 th - 22 nd September 2015, INCOIS, Hyderabad	Dr. Sujitha Thomas, Principal Scientist; Dr. Rajesh K.M, Senior Scientist Dr. G.B. Purushottama Ms. Jasmin F, Ms. Kavitha, (Scientists) Mr. M. Satish Kumar, Technical Assistant Mr. Sharath Kini, SRF
Patent filing, processing & drafting	21 st - 23 rd September 2015, RGIIPM, Nagpur	Ms. Chirayath Lavina Vincent, Research Associate
National Training in Molecular Biology and Biotechnology for Fisheries Professionals	1 st July - 30 th September 2015, CMFRI, Kochi	Mr. S. Chandrasekar, Mr. D. Linga Prabu and Ms. N. S. Jeena (Scientists)

In house trainings/workshops	Date and Venue	Participants
Pelagic Fisheries Division's Workshop on Large pelagics and Oil sardine	1 st - 5 th September 2015, Visakhapatnam Regional Centre of CMFRI	Dr. Prathibha Rohit, Dr. M. Sivadas, Dr. E.M. Abdussamad, Dr. Margaret Muthu Rathinam (Principal Scientists); Dr. U. Ganga, Dr. Shubhadeep Ghosh, Dr. K.M. Rajesh (Senior Scientists)
Workshop on Biodiversity valuation of selected ecosystems	1 st - 5 th September 2015, CMFRI, Kochi	Dr. K. K. Joshi (Principal Scientist) Dr. R. Saravanan, Mr. Pralaya Ranjan Behera Ms. Divya Viswambharan (Scientists)
Project inception workshop on "A Strategic assessment of mud crab farming potential in the brackish water stretches from Velas to Dabhol in the Ratnagiri District of Maharashtra	7 th July 2015, Calicut RC of CMFRI	Dr. Veerendra Veer Singh, Principal Scientist

Trainings / Seminars organised	Date and Venue	Organised by
GIS based Resource Mapping	5 th - 6 th August 2015, Mangalore RC of CMFRI	Dr. A. P. Dineshababu, Principal Scientist
Moving towards sustainable fisheries	12 th -14 th August 2015, Madras RC of CMFRI	Dr. M. Vijayakumaran Principal Scientist
Refresher training programme on Sea Cage farming of Cobia	23 rd September 2015, Mangalore RC	Mandapam Regional Centre of CMFRI
Seminar on Marine Fisheries of Karnataka : Present Status and Future Options	29 th September 2015,	Karwar RC of CMFRI and Coastal Development Authority, Karnataka

APPOINTMENTS			
Name	Designation	Centre	w.e.f
1. Mrs. Priya K. M.	Technical Assistant (Hindi Translator)	Mandapam RC	08.06.2015
2. Mrs. Thanujakshi	Skilled Support Staff	Mangalore RC	10.06.2015
3. Mr. P. Venkatesh	Skilled Support Staff	Visakhapatnam Regional Centre	26.06.2015
4. Mrs. Unniresmi C. U.	Skilled Support Staff	CMFRI, Kochi	08.09.2015
5. Mr. Midhun Kumar P. H.	Skilled Support Staff	CMFRI, Kochi	08.09.2015
6. Mr. Akhil Babu V.	Skilled Support Staff	CMFRI, Kochi	08.09.2015
7. Mr. Vishnu Babu T.	Skilled Support Staff	CMFRI, Kochi	08.09.2015
8. Ms. Rinku Joseph	Skilled Support Staff	CMFRI, Kochi	09.09.2015
9. Ms. Deepa R.	Skilled Support Staff	CMFRI, Kochi	09.09.2015
10. Mrs. Anju E. T.	Skilled Support Staff	CMFRI, Kochi	09.09.2015
11. Mrs. Vijayalakshmi V. V.	Skilled Support Staff	CMFRI, Kochi	09.09.2015
12. Mr. Kaushik T. R.	Skilled Support Staff	CMFRI, Kochi	09.09.2015
13. Mr. Jitheesh T. D.	Skilled Support Staff	CMFRI, Kochi	09.09.2015
14. Mr. Aju K. Raju	Technical Assistant	CMFRI, Kochi	10.09.2015
15. Mr. Prashanth PK	Skilled Support Staff	CMFRI, Kochi	10.09.2015
16. Mr. Sibin P. Babu	Skilled Support Staff	CMFRI, Kochi	10.09.2015
17. Mr. Ratheesh M.	Skilled Support Staff	CMFRI, Kochi	10.09.2015
18. Ms. Sethulakshmi M.	Skilled Support Staff	CMFRI, Kochi	10.09.2015
19. Mr. Joby P. J.	Skilled Support Staff	CMFRI, Kochi	10.09.2015 (AN)
20. Mr. Vishnu B.	Skilled Support Staff	CMFRI, Kochi	10.09.2015
21. Ms. Anaswara K. B.	Skilled Support Staff	CMFRI, Kochi	11.09.2015
22. Mr. Pakkri Muthu S.	Skilled Support Staff	CMFRI, Kochi	11.09.2015
23. Mrs. Sruthy S.	Skilled Support Staff	CMFRI, Kochi	11.09.2015
24. Mrs. Jesli Disilva	Skilled Support Staff	CMFRI, Kochi	11.09.2015
25. Mr. Akhildev S.	Skilled Support Staff	CMFRI, Kochi	14.09.2015
26. Mrs. Sreelakshmi S.	Skilled Support Staff	CMFRI, Kochi	14.09.2015
27. Ms. Binitha Babu	Skilled Support Staff	CMFRI, Kochi	14.09.2015
28. Mrs. Remya E. A.	Skilled Support Staff	CMFRI, Kochi	14.09.2015
29. Ms. Soumya K.	Skilled Support Staff	CMFRI, Kochi	14.09.2015
30. Mr. Ullas Shankar	Skilled Support Staff	CMFRI, Kochi	14.09.2015
31. Ms. Jinimol K. P.	Skilled Support Staff	CMFRI, Kochi	15.09.2015
32. Mrs. Hima P. H.	Skilled Support Staff	CMFRI, Kochi	15.09.2015
33. Mrs. Divya K. A.	Skilled Support Staff	CMFRI, Kochi	16.09.2015
34. Mrs. Aswathy A. S.	Skilled Support Staff	CMFRI, Kochi	16.09.2015
35. Mr. Eldhose Benny	Skilled Support Staff	CMFRI, Kochi	16.09.2015
36. Mr. Thobias P. Antony	Skilled Support Staff	CMFRI, Kochi	16.09.2015
37. Mr. Anirudh K.	Skilled Support Staff	CMFRI, Kochi	16.09.2015
38. Mr. Vysakhan P.	Skilled Support Staff	CMFRI, Kochi	17.09.2015
39. Mr. Sadik M. M.	Skilled Support Staff	CMFRI, Kochi	17.09.2015
40. Mr. Sujith R.	Skilled Support Staff	CMFRI, Kochi	17.09.2015
41. Ms. Marjana P. M.	Skilled Support Staff	CMFRI, Kochi	17.09.2015
42. Ms. Reshma K. S.	Skilled Support Staff	CMFRI, Kochi	17.09.2015
43. Mr. Abilash Velayudhan	Skilled Support Staff	CMFRI, Kochi	17.09.2015
44. Mrs. Keerthy Krishna	Skilled Support Staff	CMFRI, Kochi	17.09.2015
45. Ms. Athira T. G.	Skilled Support Staff	CMFRI, Kochi	17.09.2015 (AN)
46. Mrs. Preethy Udayabhanu	Skilled Support Staff	CMFRI, Kochi	18.09.2015
47. Mr. Vipinkumar K. K.	Skilled Support Staff	CMFRI, Kochi	19.09.2015
48. Mr. Jerin V. Jose	Skilled Support Staff	CMFRI, Kochi	21.09.2015
49. Mr. Augustine Sipson	Skilled Support Staff	CMFRI, Kochi	21.09.2015
50. Mr. Akhil A. R.	Skilled Support Staff	CMFRI, Kochi	21.09.2015

APPOINTMENTS

Name	Designation	Centre	w.e.f
51. Mr. Palli Kalidasu	Skilled Support Staff	CMFRI, Kochi	21.09.2015
52. Mr. Seban John	Skilled Support Staff	CMFRI, Kochi	21.09.2015
53. Mr. M. Saravanakumar	Skilled Support Staff	CMFRI, Kochi	23.09.2015
54. Mr. Bisun Bhaskar	Skilled Support Staff	CMFRI, Kochi	23.09.2015
55. Mrs. Shajala Banu P. M.	Skilled Support Staff	CMFRI, Kochi	25.09.2015
56. Ms. Arathy R. Pillai	Skilled Support Staff	CMFRI, Kochi	01.10.2015
57. Mr. T. Jothi Manikandan	Skilled Support Staff	Mandapam RC	08.09.2015
58. Ms. K. Shanmugapriya	Skilled Support Staff	Mandapam RC	08.09.2015
59. Mr. Suresh R.	Skilled Support Staff	Mandapam RC	08.09.2015
60. Mr. A. Mohammed Kaleem	Skilled Support Staff	Mandapam RC	08.09.2015
61. Mrs. M. Afrin Rani	Skilled Support Staff	Mandapam RC	08.09.2015
62. Mr. J. Ramachandran	Skilled Support Staff	Mandapam RC	08.09.2015
63. Mr. M. Mahalingam	Skilled Support Staff	Mandapam RC	10.09.2015
64. Mrs. K. Mathavi	Skilled Support Staff	Mandapam RC	10.09.2015
65. Mr. Ravikumar T. T.	Skilled Support Staff	Mandapam RC	11.09.2015
66. Mr. B. Sravanakumar	Skilled Support Staff	Mandapam RC	16.09.2015
67. Mr. R. Rajkumar	Skilled Support Staff	Mandapam RC	18.09.2015
68. Mr. Aneesh U.	Skilled Support Staff	Mandapam RC	18.09.2015
69. Mr. S. Joseph Jegan	Skilled Support Staff	Mandapam RC	21.09.2015
70. Mr. V. Anand	Skilled Support Staff	Mandapam RC	22.09.2015
71. Mr. V. Jayapradeep	Skilled Support Staff	Mandapam RC	23.09.2015
72. Mr. Alex T. Hezakiel	Skilled Support Staff	Mandapam RC	23.09.2015
73. Mr. Damodara Rao Padumu	Skilled Support Staff	Visakhapatnam RC	07.09.2015
74. Mr. Siram Nookaraju	Skilled Support Staff	Visakhapatnam RC	07.09.2015
75. Mr. Seera Harish	Skilled Support Staff	Visakhapatnam RC	07.09.2015 (AN)
76. Mr. Potala Bhaskara Rao	Skilled Support Staff	Visakhapatnam RC	14.09.2015
77. Mr. Venkateswarulu Vuyyala	Skilled Support Staff	Visakhapatnam RC	26.09.2015
78. Mr. Bhint Mitesh Hiralal	Skilled Support Staff	Veraval RC	09.09.2015 (AN)
79. Mr. Chorvadi Kamlesh Kalidas	Skilled Support Staff	Veraval RC	10.09.2015 (AN)
80. Mr. Thakar Milan Rajnikant	Skilled Support Staff	Veraval RC	18.09.2015
81. Mr. Sonara Yogesh Zinabhai	Skilled Support Staff	Veraval RC	24.09.2015
82. Mr. Mushagra Rajit Hasam	Skilled Support Staff	Veraval RC	15.09.2015
83. Ms. P. Prasannakumari	Skilled Support Staff	Madras RC	09.09.2015
84. Mr. Midhun Muthayan	Skilled Support Staff	Madras RC	14.09.2015
85. Mr. T. Balaraman	Skilled Support Staff	Madras RC	14.09.2015
86. Mr. S. Dhamodharan	Skilled Support Staff	Madras RC	14.09.2015
87. Mr. A. Vinoth	Skilled Support Staff	Madras RC	16.09.2015
88. Mr. K. Prabhakaran	Skilled Support Staff	Madras RC	23.09.2015
89. Mr. Raja Sekar R.	Skilled Support Staff	Madras RC	23.09.2015
90. Mr. Ashish C. S. Chaturvedi	Skilled Support Staff	Mumbai RC	10.09.2015
91. Mr. Vicky Kumar Prajapati	Skilled Support Staff	Mumbai RC	14.09.2015
92. Mrs. Vijisha M.	Skilled Support Staff	Mumbai RC	14.09.2015
93. Mr. Suresh	Skilled Support Staff	Mumbai RC	16.09.2015 (AN)
94. Mr. Mayank Pratap Singh	Skilled Support Staff	Mumbai RC	19.09.2015 (AN)
95. Mr. Vaibhav Milan Tawde	Skilled Support Staff	Mumbai RC	23.09.2015
96. Mr. Vaibhav Jayant Gharat	Skilled Support Staff	Mumbai RC	23.09.2015
97. Mr. Asharam Choudhary	Skilled Support Staff	Mumbai RC	15.09.2015
98. Mr. Digambar Suresh Kumbhar	Skilled Support Staff	Mumbai RC	30.09.2015
99. Ms. Pooja Mahabaleswar Gajinkar	Skilled Support Staff	Karwar RC	10.09.2015
100. Mr. Suraj Surendra Kalgutkar	Skilled Support Staff	Karwar RC	10.09.2015
101. Mr. Vineeth T.	Skilled Support Staff	Karwar RC	14.09.2015

APPOINTMENTS			
Name	Designation	Centre	w.e.f
102. Ms. Veena Ulhas Kamble	Skilled Support Staff	Karwar RC	16.09.2015
103. Mr. Shrinath B.	Skilled Support Staff	Mangalore RC	09.09.2015
104. Mr. Nagaraj Somayya Gond	Skilled Support Staff	Mangalore RC	09.09.2015
105. Mrs. Sathyavathi	Skilled Support Staff	Mangalore RC	14.09.2015
106. Ms. Pushpa K.	Skilled Support Staff	Mangalore RC	16.09.2015
107. Mr. Abdul Hakeem M. M.	Skilled Support Staff	Mangalore RC	21.09.2015
108. Mr. Dharmaraju L. B.	Skilled Support Staff	Mangalore RC	23.09.2015
109. Mr. Sujith Kumar	Skilled Support Staff	Mangalore RC	23.09.2015
110. Mr. Naveen Raju K. G. Naik	Skilled Support Staff	Mangalore RC	24.09.2015
111. Ms. Sharanya M. P.	Skilled Support Staff	Vizhinjam RC	14.09.2015
112. Ms. Krishna Priya P. M.	Skilled Support Staff	Vizhinjam RC	14.09.2015
113. Mr. Jithesh P. T.	Skilled Support Staff	Vizhinjam RC	16.09.2015
114. Mrs. Shalini O.	Skilled Support Staff	Vizhinjam RC	17.09.2015
115. Mr. Anoop K. G.	Skilled Support Staff	Vizhinjam RC	17.09.2015
116. Mr. Greever Yoyak V.	Skilled Support Staff	Vizhinjam RC	21.09.2015
117. Ms. Nishida P.	Skilled Support Staff	KVK of CMFRI	09.09.2015

PROMOTION			
Name & Designation	Promoted as	w.e.f	Centre
1. Dr. Shubhadeep Ghosh, Senior Scientist, RGP - ₹ 8,000/-	Senior Scientist, RGP - ₹ 9,000/-	03.03.2014	Visakhapatnam Regional Centre
2. Dr. Jayasree Loka, Senior Scientist, RGP - ₹ 8,000/-	Senior Scientist, RGP - ₹ 9,000/-	16.03.2014	Karwar RC
3. Dr. (Mrs.) Sandhya Sukumaran, Scientist	Senior Scientist	01.01.2014	CMFRI, Kochi
4. Dr. V. Venkatesan, Scientist	Senior Scientist	01.01.2014	CMFRI, Kochi
5. Dr. G. B. Purushottama, Scientist RGP- ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	15.12.2013	Mumbai RC
6. Dr. Johnson B., Scientist RGP- ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	04.11.2013	Mandapam RC
7. Dr. (Mrs.) Biji Xavier, Scientist RGP- ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	11.02.2013	Visakhapatnam RC
8. Dr. Divu D., Scientist RGP- ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	04.11.2013	Veraval RC
9. Dr. Pradeep M. A., Scientist RGP- ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	04.11.2013	CMFRI, Kochi
10. Dr. (Mrs.) R. Geetha, Scientist RGP - ₹ 6,000/-	Scientist RGP - ₹ 7,000/-	23.06.2013	Madras RC
11. Mr. V. Edwin Joseph, Assistant Chief Technical Officer (Retd.)	Chief Technical Officer	01.01.2014	CMFRI, Kochi
12. Mr. J. Sreenivasan, Assistant Chief Technical Officer(Retd.)	Chief Technical Officer	01.01.2014	CMFRI, Kochi
13. Mr. S. Haja Najmudeen, Assistant Chief Technical Officer(Retd.)	Chief Technical Officer	01.01.2011	Mumbai RC
14. Mr. C. K. Sajeew, Senior Technical Officer	Assistant Chief Technical Officer	01.07.2011	Mumbai RC
15. Mr. T. Rajesh Babu, SSS	Technician	01.07.2015	Calicut RC
16. Mr. M. Shahul Hameed, LDC	UDC	05.08.2015	Mandapam RC
17. Mr. M. Jayasingh, Skilled Support staff	Technician	05.08.2015	Mandapam RC
18. Mr. P. K. Harikumar, Senior Technical Officer	Assistant Chief Technical Officer	01.01.2010	Puri FC

REVERSION			
Name & Designation	Reverted as	w.e.f	Centre
1. Mr. V. C. Subhash, Assistant Administrative Officer	Assistant	29.09.2015	CMFRI, Kochi

TRANSFERS			
Name & Designation	From	To	w.e.f
1. Mr. Kishor Reghunath Mainkar, Senior Technical Assistant	Ratnagiri FC	Alibaug FC	15.06.2015
2. Mrs. Veena Shettigar, Senior Technical Assistant	Visakhapatnam RC	Mangalore RC	30.05.2015
3. Mr. Bashir Ahamed Adam Shilodar, Senior Technical Assistant	Ratnagiri FC	Mumbai RC	20.05.2015
4. Mr. Narasimhulu Sadhu, Technical Assistant	Karwar RC	Visakhapatnam RC	18.05.2015
5. Ms. Lavanya S., Technical Assistant	Mangalore RC	CMFRI, Kochi	01.07.2015
6. Mr. Prabhakar Shankar Salvi, Senior Technician	Mumbai RC	Ratnagiri FC	24.06.2015
7. Mr. Shiju P., Technician	Veraval RC	Calicut RC	15.06.2015
8. Mr. Midhunraj N. K., Technician	Mumbai RC	Vizhinjam RC	09.06.2015
9. Mr. P. K. Harikumar, Assistant Chief Technical Officer	KVK of CMFRI	Puri FC	11.09.2015
10. Dr. Praveen Narayan Dube, Technical Assistant	Mumbai RC	Karwar RC	16.09.2015
11. Mrs. Ramya Abhijith, Scientist	CMFRI, Kochi	Mandapam RC	14.09.2015
12. Ms. Remya L., Scientist	CMFRI, Kochi	Mandapam RC	14.09.2015
13. Mr. Sukhadhane Kapil Sukhadeo, Scientist	CMFRI, Kochi	Veraval RC	14.09.2015
14. Mr. Rajesh Kumar Pradhan, Scientist	CMFRI, Kochi	Veraval RC	14.09.2015
15. Ms. E. M. Chhandaprajnadarsini, Scientist	CMFRI, Kochi	Madras RC	11.09.2015
16. Mr. Rajkumar M., Scientist	CMFRI, Kochi	Mandapam RC	14.09.2015
17. Mr. Nakhawa Ajay Dayaram, Scientist	CMFRI, Kochi	Mumbai RC	11.09.2015
18. Ms. Saloni Shivam, Scientist	CMFRI, Kochi	Karwar RC	11.09.2015
19. Mr. S. Thirumalaiselvan, Scientist	CMFRI, Kochi	Calicut RC	11.09.2015
20. Mrs. Radhika Krishnan G., Assistant	CMFRI, Kochi	Vizhinjam RC	29.09.2015
20. Shri R. Balakrishnan, Lower Division Clerk	Vizhinjam RC	CMFRI, Kochi	01.10.2015

INTER-INSTITUTIONAL TRANSFERS			
Name & Designation	From	To	w.e.f
1. Mr. K. Gouri Sankara Rao, Senior Technical Assistant (Computer)	IIHR, Bengaluru	CMFRI, Visakhapatnam Regional Centre	17.07.2015
2. Mr. Rakesh Kumar, Chief Administrative Officer	CMFRI, Kochi	CSWRI, Avikanagar	31.08.2015(FN)
3. Mr. C. Muralidharan, Chief Administrative Officer	IVRI, Izatnagar	CMFRI, Kochi	05.09.2015

VOLUNTARY RETIREMENT

Name	Designation	Centre	w.e.f
1. Mr. P. Ramu	Skilled Support Staff	01.08.2015(FN)	Mandapam RC
2. Mr. Sangabhai Lakhbhai Parede	Skilled Support Staff	01.10.2015(FN)	Veraval RC

MEETINGS

1st meeting of the 13th Institute Joint Staff Council of CMFRI was held on 21st September, 2015 at CMFRI, Kochi.

ASSUMPTION OF CHARGE

1. Dr. (Ms.) P. Laxmilatha, Principal Scientist has assumed the charge of Scientist-in-charge, Madras RC of CMFRI, Chennai with effect from 07th September 2015.
2. Mr. C. Muralidharan has assumed the charge of Chief Administrative Officer at CMFRI, Kochi with effect from 05th September, 2015.

RETIREMENTS ON SUPERANNUATION



Mr. A. Shanmugavel
Senior Technical Assistant
31.07.2015
Mandapam Regional Centre



Mrs. Lata L. Khambadkar
Technical Officer
30.09.2015
CMFRI, Kochi



Mr. R. Sekhar
Technical Officer (Deckhand)
30.09.2015
Tuticorin RC.



Mr. G. Sampath Kumar
Senior Technical Assistant
30.09.2015
Mangalore RC



Mr. M. Samuthiram
Assistant
30.09.2015
Tuticorin RC

OBITUARY

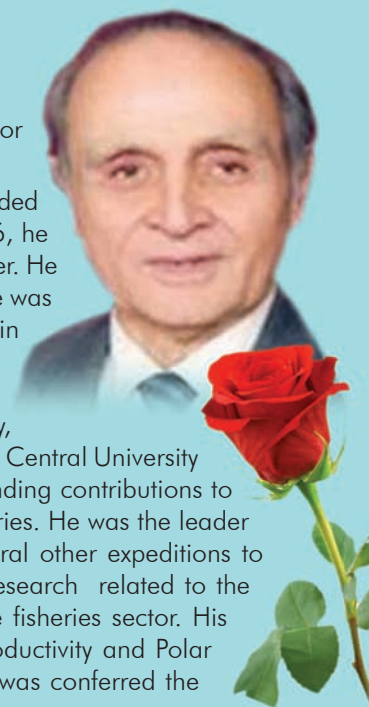
Dr. S. Z. Qasim

(31st December 1926 - 20th October, 2015)

With a deep sense of grief we report the sad demise of our respected former Director Dr. Syed Zahoor Qasim on 20th October 2015.

After graduating from Aligarh Muslim University (AMU) in 1949, S. Z. Qasim proceeded to the University of Wales, UK for higher studies. On his return to India in 1956, he joined the Department of Zoology at AMU where he served as Lecturer and Reader. He joined the Central Institute of Fisheries Education (CIFE) as Professor in 1962. He was also the Assistant Director, International Indian Ocean Expedition (IIOE), Kochi in 1964. Dr. Qasim served as Director, ICAR -CMFRI from 07.12.1970 to 04.01.1974 and later moved to the National Institute of Oceanography as its Director. He served the nation in several eminent positions including Secretary, Department of Ocean Development, Govt. of India; Vice Chancellor, Jamia Milia Central University and Member of Planning Commission (Science) subsequently. He made outstanding contributions to develop various scientific research programs in oceanography and marine fisheries. He was the leader of the first Indian Antarctic Expedition. Further, he guided and organized several other expeditions to Antarctica during the period 1981 - 88. At CMFRI, he promoted innovative research related to the marine bivalve culture and pearl culture which had a profound impact on the fisheries sector. His research papers that focused on Fisheries Biology, Oceanography, Primary Productivity and Polar Science are noteworthy. For his outstanding services to the nation, Dr. Qasim was conferred the Padma Shri award in 1974 followed by the Padma Bhushan in 1982.

On this solemn occasion, the Director and Staff, ICAR - CMFRI pay their respectful homage to the departed soul.



*CMFRI family condoles
the sad demise of our
colleague*



Mr. Laxman Shankar Korabu
Technical Assistant (Skin Diver)
Karwar RC, 15.07.2015



*Cadalmin™ Antidiabetic extract (ADe),
a nutraceutical product developed from seaweeds
see page 3*



cadalmin

CMFRI Newsletter

Cadalmin, the CMFRI Newsletter is a quarterly publication of the Central Marine Fisheries Research Institute, Kochi. The publication gives an insight into the major events of the quarter, besides highlighting the salient findings in the research front and dissemination of technological know-how to the farming community.