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On the occasion of completing 75 years, the ICAR-Central Marine Fisheries Research Institute (CMFRI) unveiled a commemorative Corporate My Stamp and special postal cover, signifying the institute's rich legacy and contributions to the field of India's marine fisheries research and development over the time. In the programme held on 21st November 2023, Shri Sayeed Rashid, Postmaster General, Kochi officially released the stamp and cover by handing over them to Dr. A.

Postal cover release to mark 75 years of research excellence



Gopalakrishnan, Director, ICAR-CMFRI. In the special release, 5000 sheets of stamps, each containing 12 stamps becomes a prized collectible for philatelists and marine enthusiasts. The stamp's design

encapsulates ICAR-CMFRI's dedication to marine research, bearing the inscription '75 Years of Research Excellence' alongside the institute's logo and the image of ICAR-

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Two new species of seer fishes identified in Indian EEZ

A seer fish species named Arabian sparrow seer fish (*Scomberomorus avirostrus*) as entirely new to science and resurrection of the Russell's spotted seer fish (*Scomberomorus leopardus*) which was previously a synonym of the spotted seer fish are the findings by a team of taxonomists. The spotted seer fish (*Scomberomorus guttatus*) that was once considered a single species, is a complex of three distinct



Russell's spotted seerfish (resurrected species)

Arabian sparrow seerfish

species which include the newly discovered seer fish, the resurrected seer fish and the existing spotted seer fish. The study highlighted considerable divergence in the morphometry and genetic structure of these fishes collected from different regions of the coast. The new species was given the common name of Arabian sparrow seer fish, owing to its typical bird-beak-like snout. This inhabits the Arabian Sea coast north of Mangalore and its

distribution extends up to the Arabian Gulf based on the available scientific information. Distribution of the other two was along the Bay of Bengal coast north of Nagapattinam, including the Andaman Seas, and China Sea. These three seer fish species are smaller in size compared to their counterparts and are mostly found in nearshore waters and command high market value (Abdussamad *et al.*, 2023, *Journal of Fish Biology*, 104: 662-680) ♦

In a momentous celebration of 75 years of marine fisheries research and development, ICAR-CMFRI got a commemorative Stamp and special Postal Cover release. It also marks the institute's unwavering commitment to sustainable marine fisheries production through wild harvests and mariculture with necessary research and technology support. In this context, the recommendations for exploring unconventional and emerging resources such as jelly fishes, species diversification for mariculture with necessary research support to develop hatchery seed supply centres, seaweed farming and setting up of mariculture parks have been mooted. It is hoped that these actions will provide for a sustainable and vibrant marine fisheries sector in India.

With best wishes

A. Gopalakrishnan

Director, ICAR-CMFRI



Millet and Fish festival organised



Ernakulam Krishi Vigyan Kendra functioning under ICAR-CMFRI organised a Millet and Fish festival from 28th to 30th December 2023. Dr. C. Tara Satyavathi, Director of ICAR-Indian Institute of Millets Research, Hyderabad inaugurated the event online in the presence of Dr. A. Gopalakrishnan, Director, ICAR-CMFRI and Dr. L. Narasimha Murthy, Chief Executive, National Fisheries Development Board (NFDB). The fest featured a variety of

activities, including millet and fish food festival, buyer-seller meet, technology exhibition and seminars with panel discussions. ICAR-Indian Institute of Spices Research, Kozhikode, National Bank for Agriculture and Rural Development, National Fisheries Development Board, Hyderabad, ICAR-Indian Institute of Millets Research, Hyderabad, and ICAR-Central Institute of Fisheries Technology, Kochi were partners of the event ♦

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CMFRI headquarters in Kochi. From a humble beginning in 1947, the institute has emerged as a leading tropical marine fisheries and mariculture research hub in the world with 4 Regional Centres (Mandapam, Visakhapatnam, Vizhinjam and Mangalore), 7 Research Stations (Veraval, Mumbai, Calicut, Karwar, Tuticorin, Chennai, and Digha), along with 17 Field Centres and two Krishi Vigyan Kendras (KVK) under its wings. Speaking on the

occasion, Dr. A. Gopalakrishnan mentioned it was a proud moment for ICAR-CMFRI and a testament to the institute's unwavering commitment to advancing marine fisheries and mariculture research for the socio-economic development of the country. Senior officials and scientists, including Senior Superintendent of Post Offices, Sivadasan P. K., Chief Administrative Officer, Hareesh Nair and Comptroller, Prashant Kumar from ICAR-CMFRI, attended the programme ♦

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Whole genome of Indian oil sardine decoded



In a major breakthrough in Indian marine fisheries research, a team of scientists at the ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI), Kochi, has decoded the whole genome of the Indian oil sardine (*Sardinella longiceps*), a popular food fish and a vital fisheries resource in the Indian subcontinent.

This decoded genome will be a valuable resource for understanding the biology, ecology and evolution of the oil sardine and the genome data can be used to improve the management strategies for the conservation and sustainable utilisation of this fish. The decoded genome is 1.077 Gb in size and contains a total of 46316 protein coding genes obtained using the Next

Generation Sequencing technology. Whole genome information can also be utilised for identification of the origin of catch for monitoring trade channels during fisheries certification programmes and tracking the movement of this enigmatic fish. Small pelagic fishes like the Indian oil sardines can also be considered as model organisms to study how fish adapt to climate change because they respond sharply to variations in environmental and oceanographic parameters. The genomic investigations found that Indian oil sardines, in the Indian waters and in the Gulf of Oman are two highly distinct stocks. Understanding these genetic differences could help researchers comprehend how environmental and oceanographic

conditions impact this species in different regions of the Northern Indian Ocean. The genes involved in the biosynthesis of polyunsaturated fatty acids (PUFA) of the oil sardine were also identified, offering insights into the genomic mechanisms behind the high nutritional quality of these sardines. The findings could support scientists in finding critical leads in developing new dietary supplements or fortified foods that are high in PUFAs. Further, studies on synthesizing PUFAs through transgenesis or gene editing techniques in organisms of choice to improve nutritional quality will also benefit from the new information generated (Sukumaran et al., 2023, *Scientific Data*: 10(565), ISSN 2052 -4463) ♦

Three colour morphs of Jellyfish recorded from the Indian coastal waters



The continuous monitoring of jellyfish bloom dynamics along the coastal waters of the east and west coasts of India recorded three colour morphs of *Crambionella orsini*. *C. orsini* is a commercially exploited jellyfish that supports active jellyfish fisheries in states like Kerala, Tamil Nadu, and Andhra Pradesh. There are three naturally occurring colour morphs recorded: two from the east coast, viz., shades of tan and cyan and maroon colour from the west coast. It is reported that the colour is mainly due to the metal-binding proteins

Reported by R. Saravanan, S. Thirumalaiselvan and K. Vinod, Mandapam Regional Centre ♦

Ecological informatics: Predicting, protecting, and preserving marine life

Ecological Informatics, with powerful tools to unlock the secrets of life in the oceans from analysing vast GIS remote sensing data, environmental parameters, and ecological networks to building models and conducting AI-ML-aided analysis of data is gaining headlines. The Ecological Informatics wing at the Marine Biodiversity & Environment Management Division on a modelling study predicted potential habitats for the key coral *Acropora muricata* in understudied areas of the Andaman Sea (Anakha *et al.*, 2022. *Journal of Coastal Conservation*, 26, 81p). The key drivers of its distribution include depth, shoreline distance, sunlight, and currents and many previously unexplored islands and reefs were listed as likely coral strongholds, suggesting rich ecosystems in the region. Reef-killing bacterial infections, such as white syndrome, caused by *Vibrio coralliilyticus*, pose a major threat and advanced modelling to predict areas where corals are most vulnerable to this pathogen were done (Krishnaveny *et al.*, 2023. *Thalassas*, 40: 423-434.). Key environmental factors such as depth and temperature were identified, pinpointing Hawaii, the Coral Triangle, and the Great Barrier Reef as high-risk

zones. Seagrasses are vital to the health of the marine environment, but they are facing threats from climate change and human activity. This study used satellite data to track seagrass coverage in the Kalpeni lagoon from 2003 to 2020 (Twinkle *et al.*, 2023. *Ecological Informatics*, 74 (2023) 101964: 110). The results showed a dramatic decline in seagrass coverage, with more than 99% disappearing over the 17 years. This is likely due to rising sea surface temperatures, which stress these important plants.

Snowflake coral, a fast-growing invader from the Caribbean, is wreaking havoc on marine ecosystems worldwide. A recent study used advanced modelling to predict the future distribution under various climate scenarios. While low- and medium-suitability areas are expected to increase, the surprising finding was a decline in high-suitability regions under the most extreme climate scenario (Nisin *et al.*, 2023. *Ecological Informatics*, 76 (2023) 102145: 1-10). The emerging bacterial threat of *Serratia marcescens* to both human health and coral reef ecosystems is prompting the need for a global risk assessment. Our study used advanced modelling to predict the area most susceptible to *S.*

marcescens infections and the human populations at risk. The model identified factors such as density and temperature playing a key role in its distribution (Shana *et al.*, 2023, *Current Microbiology*, 8(59):1-9).

The invasion of non-native species, particularly bivalves such as the South American *Mytella strigata*, is a major threat to aquatic ecosystems worldwide. This study used advanced modelling to predict the habitat suitability of *M. strigata* in the northern Indian Ocean (Nisin *et al.*, 2023. *Science of the Total Environment*, 916: 1-9). The results identified the western coast of India as comparatively more susceptible to invasion, the distance to the port being the key factor influencing outbreaks. The study also highlights the vast habitat suitability and the existing presence of the species in the region, raising concerns about its potential to become highly invasive. Given the significant ecological damage caused by *M. strigata* elsewhere, immediate action to manage and restrict its spread in the Indian Ocean includes implementing stricter controls in ports and developing effective monitoring and eradication strategies. The immense potential of bioinformatics in safeguarding the health and future of our oceans thus extended from predicting coral strongholds and vulnerable reef zones to mapping the distribution of invasive species and human health risks, empowering us to make informed decisions and implement proactive conservation strategies ♦



Sea cage models to popularize scientific sea farming

The Karwar Regional Station of the Central Marine Fisheries Research Institute donated sea cage models to the Science Centre in Karwar, Kodibag, to promote awareness and education about marine fisheries and aquaculture among visitors and other interested stakeholders in Karwar. Dr. A. Gopalakrishnan, Director, ICAR-CMFRI; Dr. Kuldeep Lal, Director, ICAR-CIBA, and Dr. Pravin Puthra, former ADG (Marine Fisheries), ICAR were present on the occasion ♦



XVI Agricultural Science Congress

The XVI Agricultural Science Congress (XVI ASC 2023), organised by the National Academy of Agricultural Sciences (NAAS), New Delhi and hosted by the ICAR-CMFRI, Kochi convened in Kochi, India, from October 10 to 13, 2023 witnessed over 1,700 delegates comprising experts, researchers, policymakers, and industry leaders participating in an effort to delineate a trajectory towards sustainable agriculture and food security. Inaugurated by Shri Parshottam Rupala, Hon'ble

Minister of Fisheries, Animal Husbandry and Dairying, Govt. of India, the event emphasized the paramount importance of scientific innovations in reconfiguring agri-food systems to meet the sustainable development goals amid environmental challenges and uncertainties posed by climate change. He further stressed the importance of enhancing mechanization in the agricultural production process and that the future of India's agriculture hinges significantly on effectively translating

accumulated scientific knowledge into commercial success. Dr. Himanshu Pathak, Secretary, Department of Agricultural Research and Education (DARE) and Director General, Indian Council of Agricultural Research (ICAR), delivered the presidential address, elucidating Prime Minister Narendra Modi's vision for realizing sustainable development goals through the integration of technology and scientific advancements into agricultural practices.

The ASC themed "Transformation of Agri-Food Systems for Achieving Sustainable Development Goals (SDGs)," had 10 thematic sessions, plenary lectures, panel discussions and symposiums, comprehensively addressing sustainable land and water management, climate-resilient agriculture, precision farming, alternative farming systems, next-generation technologies, among other pertinent topics. It also featured six plenary lectures delivered by distinguished personalities in the agricultural and allied sectors, offering valuable insights into the latest advancements, emerging trends, and critical challenges facing the agriculture sector ♦



Seaweed-based nutraceuticals commercialised

Cadalmin™ Antihypercholesterolemic extract (Cadalmi™ ACe) and Cadalmi™ Immunalginate extract (IME), two patent-protected nutraceutical products developed by ICAR-Central Marine Fisheries Research Institute, as natural remedies to combat dyslipidemia and hypercholesterolemic disorders and an antiviral immunity booster from seaweeds potentially to be used against post COVID immunity complications, were commercialized with Pioneer Pharmaceuticals Limited-a leading wellness and pharmaceutical company based at Kochi. On behalf of the ICAR-CMFRI, Dr. A. Gopalakrishnan, Director, signed an exclusive license agreement with the company for their commercial production and marketing.

The bioactive principles in Cadalmi™ ACe inhibit hydroxymethyl



glutaryl coenzyme A reductase, various target receptors and other rate limiting enzymes, which are responsible to cause dyslipidemic disorders. Cadalmi™ IME is a synergistic combination of seaweed-based nutraceutical product, which is a 100% natural blend of bioactive ingredients extracted with eco-friendly 'green' technology as an antiviral immunity booster, which can potentially be used to boost post-covid immunity. The nutraceutical has antiviral properties against delta variant of SARS CoV-2 virus. These nutraceutical products contain

100% natural marine bioactive ingredients from selected seaweeds by patented technologies, and would be made available in plant-based capsules to meet the dietary needs of the large vegetarian population in India and abroad, by Pioneer Pharmaceuticals Limited. The ICAR-CMFRI is in the process of developing more health products ensuring gainful utilization of the seaweed resources in Indian coastal waters.

Reported by Kajal Chakraborty, Head, Marine Biotechnology Fish Nutrition and health Division ◆

Seaweed farming along Kutch coast to promote Blue Economy

ICAR-Central Marine Fisheries Research Institute has initiated a significant project on seaweed farming along the Indo-Pak border marine creeks Kori, Padala, and other selected locations of the Kutch coast. Funded by the Department of Fisheries, Government of India, and monitored by the Hon'ble PMO and Ministry of Home Affairs, it aims to promote the Blue Economy in the region through seaweed cultivation, promoting social and economic prosperity. ICAR-CMFRI has successfully installed custom HDPE raft systems with net-tubes and monolines



seeded with the seaweed *Kappaphycus alvarezii* at selected in Kori and Padala, marking a crucial milestone. Despite operational challenges such as very high tidal amplitude, initial assessments have shown promising growth performances, particularly with monoline-based

methods, showcasing the potential of this innovative farming technique in challenging marine environments.

Reported by: D. Divu, Suresh Mojjada, P.S. Swathi Lekshmi, P. Abdul Azeez, Jayesh Devaliya and Dipti Singh ◆

MoU signed for the commercialization of Cadalmin™ Silvergrow

Cadalmin™ Silvergrow, a novel Silver pompano grow out feed developed by the Marine Biotechnology Fish Nutrition and Health Division of ICAR-Central

Marine Fisheries Research Institute, is commercialized with ABIS Exports India Pvt. Ltd., a leading fish feed company in India. Dr. A. Gopalakrishnan, Director, ICAR-

CMFRI signed a license agreement with Mr. Mohammad Asif Qureshi, Vice president, ABIS Exports India Pvt. Ltd., on 13th October, 2023 for its commercial production and marketing with a license fee of ₹0.50 lakhs for 3 years. The primary objective of this MoU is to create a framework for cooperation and research collaboration to facilitate the outreach of pompano grow-out feed developed by ICAR-CMFRI ♦



Scientists explore scope for mariculture in Sri Lanka

Dr. Ritesh Ranjan, Senior Scientist, along with Dr. Bobby Ignatius, Principal Scientist ICAR-CMFRI and Dr. Shubhadeep Ghosh, ADG (MFy) visited Sri Lanka to assess the scope and requirements of mariculture research and development in Sri Lanka. They visited different sites in and around Kalpitiya, Mannar, Jaffna, Trincomalee during 22nd September to 3rd October 2023 to select sites for cage culture, IMTA, marine hatchery, sea weed, oyster and crab culture ♦

MOU signed with Yashaswi Fish Meal and Oil Company

ICAR-CMFRI has signed MOU with Fish meal and oil company to undertake the consultancy project on Fishery and

stock assessment of small pelagic in purse seines along Karnataka coast on 21st December 2023 ♦



7th International Jellyfish Blooms Symposium

The 7th International Jellyfish Blooms Symposium was organized in Thiruvananthapuram, India, jointly by the University of Kerala and the ICAR-Central Marine Fisheries Research Institute, Kochi, on November 21–25, 2023. The participants came from more than 35 countries for the seventh edition

of the symposium held in the United Nations Decade of Ocean Science for Sustainable Development (2021–2030). A commemorative book on jellyfish bloom dynamics in Indian coastal waters was released and a workshop on the integrative taxonomy of jellyfish was also held during its course ♦



Awareness programs on Artificial Reefs conducted

Extensive awareness programs for marine fishermen under the NFDB-PMMSY Artificial Reef Program were held during October to December 2023. Dr. Joe K. Kizhakudan who leads the programme, held interactions with around 1600 fishermen from 60 villages in Karnataka, 400 fishermen from 30 villages in Gujarat, 600 fishers from 100 villages in Odisha and nearly 100 fishermen in Srikakulam and Vizianagaram districts of Andhra Pradesh. The programs aimed at livelihood enhancement of artisanal and traditional marine fishermen through the deployment of artificial reefs, enabled by the Department of Fisheries, Government of India.

Reported by: Dr. Joe K. Kizhakudan, Visakhapatnam Regional Centre ♦

Climate Change and Marine Fisheries governance issues highlighted



ICAR-CMFRI participated in BOPP -FAO International Conclave on "Mainstreaming Climate Change into International Fisheries Governance and Strengthening of Fisheries Management Measures in the Indo-Pacific Region" held during 16th to 19th October 2023 at Chennai. The Honorable Union Minister for Fisheries, Animal Husbandry and

Dairying, Shri Parshottam Rupala inaugurated the exhibition set up on the occasion and highlighted the concept of creating "Climate Smart villages". Dr. Grinson George, Head, MBEMD, Dr. R. Narayanakumar, Scientist-in-Charge, Madras Regional Station, ICAR-CMFRI briefed the minister about the activities of the institute ♦

Cage Harvest Mela



Seabass harvest from six open sea cages installed at Kottaikadu Village, Cheyyur Taluk, Chengalpattu District, on 1st December 2023, operated under the Scheduled Caste Sub-Plan programme of the institute was done successfully. Officials from the Department of Fisheries, Government of Tamil Nadu,

panchayat leaders, beneficiaries, and ICAR-CMFRI staff attended the function. The harvested fish were immediately marketed, generating a total revenue of ₹4,16,340, which was distributed among the beneficiary groups involved in cage farming. Additionally, four open sea cages installed at Senjiamman Nagar,



Pazhaverkadu coastal village, Ponneri Taluk, Thiruvallur district under the Tribal Sub-Plan Programme benefiting the Irular Community were harvested which generated ₹3,23,250 earnings for the beneficiary group.

Reported by Madras Regional Station, Chennai ♦

Stocking of seabass seed in cages



Four rectangular cages (4x3x2m) distributed to five Scheduled caste families which are installed at Thallur, Kundapura taluk, Udipi district under Schedule Caste Sub-plan (SCSP) programme were stocked with four thousand seabass seeds weighing on an average of 16.8g on 12th December 2023 ♦

Stakeholder meeting conducted

Dr. Joe K. Kizhakudan conducted stakeholder meetings for marine fishermen in Puducherry from 26th to 30th November 2023 and in Karaikkal on 1st December 2023, with around 600 traditional fishers participating across 25 meetings. He also led a team for surveying 25 suitable locations for deploying artificial reefs in Puducherry during this period. Additionally, he met with key officials including the Fisheries Minister of Tamil Nadu, Chief Minister of Puducherry, and District Collector of Karaikkal. On 29th December 2023, Dr. Kizhakudan and Dr. Jayasree Loka conducted a stakeholder meeting at Pedavalasa in Kakinada under the SCSP program ♦

National survey program on marine litter

Nationwide rapid survey on marine litter monitoring was conducted along the beaches of North and South of Chennai covering almost 15 locations for the preparation of infographics on the litter status of Indian beaches on 7th, 16th and 17th November 2023.

Training in live feed culture techniques

Hands on training on “Livefeed culture techniques for Mariculture applications” under the All India Network Project on Mariculture (AINP-M) was conducted at Visakhapatnam Regional Centre from 18th to 22nd December 2023. The participants came from different states like Andhra Pradesh, Karnataka, Tamil Nadu, Madhya Pradesh, West Bengal and Telangana. The training programme was inaugurated



by Mr. Ravikumar Yellanki, Managing Director of Vaisakhi Bio-Marine Private Limited and Vaisakhi Bio-resources Private Limited, Visakhapatnam.

Reported by Dr. Biji Xavier, Dr. Ritesh Ranjan, Dr. Sekar Megarajan, Dr. Loka Jayasree and Dr. Joe K. Kizhakudan, Mariculture Division, Visakhapatnam Regional Centre ♦

Sea ranching of the Green tiger shrimp



A total of 3.5 million green tiger shrimp seeds (PL 26) were sea ranched at Maraikkayarpattinam (Gulf of Mannar) on 18th October, 2023 under the Project entitled “Sea ranching of Green tiger shrimp (*Penaeus semisulcatus*) Post Larvae (PL) in Palk Bay and Gulf of Mannar, Tamil Nadu” funded by Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India under the Central Sector Scheme component of the Pradhan Mantri Matsya Sampada Yojana (PMMSY). Another 1.4 million green tiger shrimp seeds (PL 28) were sea ranched at Seeniappa Dharga (Gulf of Mannar) on 14th December, 2023.

Reported by G. Tamilmani, B. Johnson, M. Sakthivel, P. Rameshkumar, K. K. Anikuttan, R. Bavithra and K. Vinod, Mandapam Regional Centre ♦

On 8th December 2023, Silver pompano seeds with an average weight of 0.25g were stocked in cages installed in the estuarine waters of Paduthonse, Kundapura, Koderi, and Tharapathi villages of Udupi district under an NFDB-sponsored project. Subsequently, on 23rd December 2023, Indian pompano seeds weighing around 0.85g were also stocked in the same cages. The Chief Executive of NFDB visited the demonstration sites on 8th December 2023 during the stocking activity and interacted with the beneficiary farmers ♦

Stocking of pompano seeds



Training programme on pompano and cobia mariculture

Training program on "Seed Production and Farming of Cobia and Pompano" was conducted at ICAR-CMFRI's Mandapam Regional Centre for ten officials from the Kerala State Fisheries Department from 6th to 9th November 2023. The program covered theory and practical sessions on



breeding, seed production, and farming aspects of cobia and pompano, along with field visits.

Reported by K.K. Anikuttan, P. Ramesh Kumar and K. Vinod, Mandapam Regional Centre ♦

Official language inspection team visits Karwar

An Official Language implementation inspection was conducted for Karwar Regional Station of ICAR-CMFRI by Shri Anirban Kumar Vishwas, Deputy Director (Implementation), Regional Implementation Office (south), OL Dept., Ministry of Home Affairs on 29th November, 2023. Dr. A.



Gopalakrishnan, Director, ICAR-CMFRI, Kochi and Dr. Prathibha Rohith, Scientist-

in-Charge, Karwar Regional Station participated in the programme ♦

Hindi Fortnight celebration 2023

Workshops and competitions in Hindi were conducted during September 14th to 28th, 2023, in connection with the Hindi Fortnight celebrations of the institute to encourage the use of Hindi language. The valedictory function held on October 30 was presided over by Dr. A. Gopalakrishnan, Director, ICAR-CMFRI. The Marine Biodiversity and Environment Management Division received the Rajbhasha Rolling Trophy for securing the highest points in Hindi competitions ♦



Swachh Bharat activities

Swachhta Hi Seva and Special Campaign 3.0 were celebrated at ICAR-CMFRI locations nationwide, including headquarters, regional stations, and centres from 15th September to 31st October, 2023. The activities included cleanliness drives, awareness campaigns, felicitation of cleaning staff under the *Thank you Safai Mitra* initiative and initiatives like distributing waste bins and planting trees. Various events such as quiz competitions, bike rallies, and walkathons were organized to propagate the message of cleanliness. Swachhta Pakhwada was also observed with activities like workshops, organic farming, and planting trees. Overall, the initiatives aimed to promote cleanliness and a healthy environment across ICAR-CMFRI premises and surrounding areas.

Reported by Dr. N. Aswathy, Nodal Officer, Swachh Bharat Abhiyan committee ◆



Kisan Diwas celebrated

Kisan Diwas was observed on 23 December, 2023 at various regional centres and stations of ICAR-CMFRI by honouring chosen fish farmers. At the Mandapam Regional Centre, 27 sea cage and seaweed farmers from nearby villages participated and interacted with scientists. The Madras Regional Station celebrated the day at Senjiamman Nagar, Pazhaverkadu with the Irular tribal community beneficiaries of open sea cage culture felicitated. Dr. Joe Kizhakudan, Head, Visakhapatnam Regional Centre, felicitated a progressive farmer Shri. Naveen and Dr. P. Janakiram of Andhra University, for his contribution to coastal aquaculture field, on the occasion ♦



Vigilance awareness week

ICAR-CMFRI celebrated Vigilance Awareness Week from 28th October to 5th December 2023, featuring activities such as an awareness program on cybersecurity

by NGO Bodhini, a quiz on vigilance awareness and a panel discussion on safeguards against workplace sexual harassment. In the valedictory function, Hon'ble Justice Devan Ramachandran of the High Court of Kerala was the Chief Guest. At Madras Regional Station, the programmes were held from 30th

October to 5th November 2023, with competitions like elocution, drawing, quiz, and singing focusing on themes of eradicating corruption and commitment to the nation. Dr. M. Muralidhar, Principal Scientist at ICAR-CIBA, Chennai, was the chief guest and delivered a talk on Vigilance Awareness ♦



Visitors



Dr. Kuldeep Lal, Director ICAR-CIBA director visited Vishakhapatnam Regional Centre on 29th October 2023.



Dr. J. K. Jena, DDG (Fisheries), ICAR visited the Vishakhapatnam Regional Centre on 25th December 2023.



Dr. Shubhadeep Ghosh, ADG (Marine fisheries), Fisheries division, Indian Council for Agricultural Research, ICAR visited the Karwar Regional Station of ICAR-CMFRI on 27th November 2023.



Shri. Arun Kumar, Officer on Special Duty to the Honorable Minister of Agriculture and farmer welfare, Govt of India visited Karwar Regional Station of ICAR-CMFRI on 9th November 2023.



Training given to Fish Farmer Producer Organisation members

A training program on "Cage Culture under the PMMSY scheme for FFPO Members" was successfully organized in Byndoor, Karnataka on December 4th 2023. The programme aimed to educate women fisherfolk and small-scale fishery entrepreneurs on modern techniques and best practices in cage culture, emphasizing sustainable aquaculture methods ♦.

Hatchery produced seeds of Vermiculated spinefoot and Picnic seabreams distributed to farmers



Karwar regional station of ICAR-CMFRI distributed hatchery produced seeds of Picnic seabream *Acanthopagrus berda* and Vermiculated spinefoot *Siganus vermiculatus* to the farmers on 29 November 2023 to create awareness about the excellent mariculture potential of these species. Standardized breeding and seed production of these two candidate marine fishes for the first time in the country, to diversify marine finfish species for mariculture in India was achieved by the centre. Around 40 local fish farmers attended the programme ♦

Recognitions

The ICAR-Central Marine Fisheries Research Institute (CMFRI) was awarded the prestigious Geospatial Excellence Award-2023 at GeoSmart India 2023, an international conference and geospatial industry expo held from 17th to 19th October, 2023 in Hyderabad. The outstanding efforts of the institute to use geospatial modeling applications in mariculture site selection and sea space governance for the development of mariculture parks were recognised with Dr. Suresh Kumar Mojjada, Veraval Regional Station receiving the award.

The prestigious Hasmukh Shah Memorial Award for Ecological Studies was won by Alvin Anto, a Young Professional for his extensive research on the resilience of coral reefs in the Lakshadweep Islands. The award, which includes a cash prize of ₹2 lakh and a certificate of recognition, aims



to honour individuals who have made significant contributions through research, development, or implementation of innovative solutions to address pressing sustainability issues.

Programme participation

Dr. Rajesh K. M. participated in the 7th International Symposium on Cage Aquaculture in Asia (CAA7) held in Haikou, China during 29th November to 2nd December 2023 ♦



Dr. Pralaya Ranjan Behera, Senior Scientist was selected for the Best Scientist Award 2023 by Society of Fisheries and Life Sciences College of Fisheries Mangalore on 21st November 2023

Dr. B. Johnson won the Best Poster Award for the paper entitled 'Good Management Practices in Seaweed Farming' under Theme 6: Aquaculture and Fisheries-based Transformation of Food

Systems in the XVI Agricultural Science Congress organized by the National Academy of Agricultural Sciences (NAAS), New Delhi and hosted by ICAR-CMFRI during 10-13 October 2023 at Kochi.

ICAR-CMFRI, Kochi emerged as Overall Team Champion Runner up of ICAR South Zone Sports Tournament 2023 hosted by ICAR-Indian Institute of Horticulture Research, Bengaluru during 13 to 16 December 2023 ♦



Karwar Regional Station of ICAR-CMFRI accorded a warm farewell to Dr. Prathibha Rohit, Principal Scientist & Scientist-In-Charge on her superannuation on 30th November 2023, after rendering 36 years of service in ICAR-CMFRI ♦



Shri M.P. Mohandas

Senior Technician
31.10.2023

Dr. Prathibha Rohit

Principal Scientist & Scientist-in-Charge
30.11.2023

Shri A. Anasukoya

Technical Officer
30.11.2023

Shri D.D. Sawant

Technical Officer
30.11.2023

Shri H.M. Bhint

Technical Assistant
31.12.2023

Inter-Institutional transfer

Name & Designation	From	To	w.e.f
Smt. Shirley Kuriakose, Private Secretary	ICAR-Headquarters, New Delhi	ICAR-CMFRI, Kochi	16.10.2023 (FN)
Smt. V. Vidhya, Scientist	ICAR-CIFE, Balabadrapuram Kakinada Centre	Tuticorin Regional Station of ICAR-CMFRI	14.12.2023 (FN)
Smt. Saloni Shivam, Scientist	Karwar Regional Station, ICAR-CMFRI	ICAR-CIFE, Mumbai	15.12.2023 (AN)

Intra-Institutional transfers

Name & Designation	From	To	w.e.f.
Smt. G. Hemlata	Visakhapatnam Regional Centre	ICAR-CMFRI, Kochi	26.10.2023
Shri Biju George, Lower Division Clerk	Mariculture facility at Njarakkal (KVK)	ICAR-CMFRI, Kochi	17.11.2023
Dr. Geetha Sasikumar, Principal Scientist	Mangalore Regional Centre	ICAR-CMFRI, Kochi	20.11.2023
Dr. Sunil Kumar S. Ail, Scientist	Mumbai Regional Station	Mangalore Regional Centre	28.11.2023
Dr. Saima Rehman, Scientist	Madras Regional Station	ICAR-CMFRI, Kochi	28.11.2023
Dr. Adnan Hussain Gora Scientist	Madras Regional Station	ICAR-CMFRI, Kochi	28.11.2023
Smt. N. G. Supriya, Assistant	Calicut Regional Station	ICAR-CMFRI, Kochi	29.11.2023
Dr. J. Charles Jeeva, Principal Scientist	Visakhapatnam Regional Centre	Madras Regional Station	01.12.2023

Promotions

Name & Designation	Promoted as	Centre	w.e.f
Shri M. Shahul Hameed, UDC	Assistant	Mandapam Regional Centre	27.10.2023 (AN)

Deputation

Name & Designation	From	To	w.e.f.
Shri K. S. Ajith, Assistant Administrative Officer	ICAR- CMFRI, Kochi	ICAR- IISR, Calicut	1.11.2023

Obituary



Shri K. Anandan,

Multi-Tasking Staff

Tuticorin Regional Station



ICAR-CMFRI

The Central Marine Fisheries Research Institute is a premier research institute under the Indian Council of Agricultural Research and focusses on research and training in marine fisheries and mariculture.

Cadalmin is the quarterly newsletter of ICAR-CMFRI. This publication gives an insight into the major events of the institute, besides highlighting the salient research findings for the benefit of various stakeholders in the marine fisheries sector.

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