

cadalmin

Newsletter of ICAR-Central Marine Fisheries Research Institute



DDG (Fisheries) inaugurates India's first Mariculture DST-STI hub at ICAR-CMFRI

INSIDE

Pre-Census workshops for Marine Fisheries Census 2025	3
CMFRI technology recognised among ICAR's top five fisheries innovations	6
Monsoon tango affects the Indian Oil Sardine Fishery of Kerala	7
Seed Release of Marine Ornamental Fishes	19

Dr. J. K. Jena, Deputy Director General (Fisheries), ICAR, inaugurated India's first Mariculture DST-Science Technology and Innovation (STI) hub at the ICAR-CMFRI Veraval RS on 22 August 2025. Funded by the Department of Science and Technology (DST), the hub aims to empower the Siddi Tribal community through mariculture entrepreneurship. This initiative is a powerful example of how science and technology can create sustainable livelihoods. In his inaugural address, the DDG stated that the hub will contribute significantly to the nation's Blue Economy mission. It will provide the Siddi Community with the tools and training to become successful entrepreneurs, building a strong mariculture model in Gujarat. Dr. Grinson George, Director, ICAR-CMFRI, in his presidential address,

remarked that "this hub is a unique example of how science can directly uplift coastal communities and align with India's sustainable development goals." The event was attended by officials from the DoF; Dr. George Ninan, Director, ICAR-CIFT; representatives from MPEDA, EIA, Port authorities, and the Indian Coast Guard, along with scientists, academicians, and stakeholders from the fisheries sector.





Integrated fish farming to enhance livelihoods in Kuttanad



We remain committed to advancing India's marine fisheries and mariculture sector through science-driven, sustainable, and inclusive initiatives. The inauguration of India's first Mariculture Science, Technology and Innovation (STI) Hub at Veraval reflects our focus on empowering coastal communities through technology, entrepreneurship and capacity building. Our active engagement in national initiatives such as the Marine Fisheries Census 2025, climate-resilient fisheries discussions and stakeholder consultations on marine biodiversity and sustainable resource management highlights the Institute's commitment to science-based governance and ecosystem stewardship. Research advancements in captive breeding, seed production, deep-sea resource exploration and mariculture diversification further strengthen sustainable livelihood opportunities and resource utilisation. Through continued collaboration with research institutions, fishing communities, government agencies and industry stakeholders, ICAR-CMFRI aims to contribute to a resilient Blue Economy through innovation, partnerships and community participation.

With best wishes

Grinson George
Director, ICAR-CMFRI

Shri George Kurian, Hon'ble Union Minister of State for Fisheries, Animal Husbandry and Dairying and Minority Affairs, visited ICAR-CMFRI, Kochi, on 22 August 2025 and chaired a meeting to explore the potential of integrated fish cultivation in Kuttanad, Kerala. This unique farming system holds immense potential for increasing food production and farmers' income. The Minister announced a new pilot project aimed at boosting livelihood opportunities for fish farmers in the region. The initiative aims to integrate traditional farming with

modern practices, and proposes the formation of Fish Farmers Producer Organizations (FFPOs) to empower local communities while contributing to food and nutritional security. ICAR-CMFRI scientists are part of the expert team developing a detailed project report for the pilot project. The meeting was attended by former Union Minister Shri Rajeev Chandrasekhar; Dr. K. Mohammed Koya, Fisheries Development Commissioner, GoI; the Director, ICAR-CMFRI; and representatives from ICAR Institutes, government agencies, and KVKs.

Launch of 'Matsya Shakti' project



Shri George Kurian, Hon'ble Union Minister of State for Fisheries, Animal Husbandry and Dairying and Minority Affairs, addressed the fishermen community in Thiruvananthapuram under the Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme, Ministry of Minority Affairs, GoI.

Under the 'Matsya Shakti' initiative, the Vizhinjam RC implemented training programmes on fisheries, cage farming, seed production and adoption of modern technologies. Around 700 fishermen families will benefit through improved livelihoods, skill development and income generation.

Pre-census workshops for Marine Fisheries Census 2025

A series of Pre-Census Workshops were conducted across all coastal states during August–September 2025, serving as the critical platform to assess and validate lists of fisher habitations as part of the groundwork for the Marine Fisheries Census (MFC) 2025. These sessions brought together officials from ICAR-CMFRI and the respective State Fisheries Departments. The workshops focused on reviewing three primary activities completed using the VyAS-NAV mobile application. This involved village validation for the physical

verification of settlements to confirm marine fishing dependence and to update village lists, followed by a review of geo-tagging and mapping, and an assessment of the status of enumerator identification for each fishing village based on estimated household counts. The workshops finalised the Census Frame by resolving discrepancies concerning newly added, deleted, or merged locations and addressed potential field-level challenges. Furthermore, the sessions significantly enhanced operational coordination by facilitating

discussions between ICAR-CMFRI and State Fisheries officials, confirming readiness for the Marine Fisheries Census scheduled for November–December 2025.



National seminar on Vision Viksit Bharat @2047



ICAR-CMFRI, in collaboration with the Indian Council of Social Science Research (ICSSR), organised a two-day national seminar titled 'Vision Viksit

Bharat @2047-Mitigating Climate Change to the Blue Ecosystem: An Integrated Approach of Science, Community and Nature from 5-6



August 2025. A total of 36 abstracts were presented across six thematic areas, and about 90 participants attended the seminar in hybrid mode.

National Fish Farmers Day celebrations



ICAR-CMFRI observed National Fish Farmers Day on 10 July 2025 across its centres. At Kochi, a three-day hands-on training programme on fish feed production under Scheduled Caste Sub Plan (SCSP) was inaugurated by Dr. Grinson George, Director, ICAR-CMFRI, focusing on sustainable feed formulation and livelihood

support for coastal communities. At Karwar, progressive farmers Shri Sanju Fernandes and Shri Vinayaka Lingappa Mukri were felicitated for promoting integrated coastal cage farming. At Visakhapatnam, 25 fish farmers from different districts of Andhra Pradesh were honoured. At Veraval RS, scientists and staff honoured Smt. Vijayaben

Rathod, CEO of the first Fish Farmers Producer Organisation (Mariculture) in India, established with CMFRI support during 2024-2025. This FFPO, Shree Bhimrao Matsyudyog Seva Sahkari Mandali Ltd., is the first of its kind in India for mariculture and comprises over 450 members, all of whom are SC beneficiaries.

ICAR-CMFRI-Mekkara MoU on aquafeeds



ICAR-CMFRI signed a Memorandum of Understanding (MoU) with Mekkara Fish Hatchery, Kerala, on 24 July 2025 to jointly explore the production and utilisation of insect protein from the Black Soldier Fly (BSF) as a sustainable alternative to fish meal in aquafeeds. The collaboration aims to promote sustainable aquaculture practices, reduce dependence on fish meal and support a circular bioeconomy.

Sanal Ebenezer, Chandrasekar S., Adnan H. Gora, Linga Prabu D. ♦

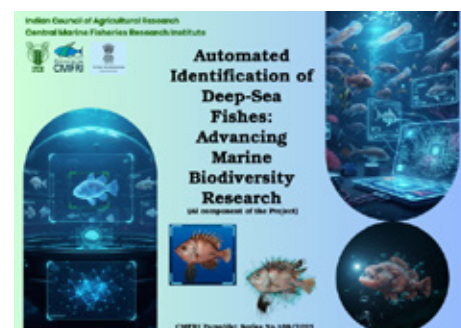
Deep Ocean Mission project launched



The launch workshop of the project “Automated Identification of Marine Species with Artificial Neural Networks to Enhance the Exploration and Sustainable Utilization of Deep-sea Marine Fishes” was held at ICAR-CMFRI, Kochi, under India’s Deep Ocean Mission. Funded by the Ministry of Earth Sciences (MoES) under Deep Ocean Mission, Vertical III, with a project outlay of ₹2.84 crore, the project is led by Dr Rekha J. Nair, Principal Scientist, ICAR-CMFRI, in collaboration with ICAR-NIAP. The project aims to identify

potential seamount habitats and associated deep-sea resources along the southwest coast of India and develop AI-based tools for automated identification of deep-sea organisms using high-resolution images and ROV video footage. It combines conventional taxonomy with artificial intelligence to create a digital deep-sea biodiversity database. The initiative will support rapid biodiversity assessment and sustainable utilisation of deep-sea resources. Director, ICAR-CMFRI, highlighted the role of AI-

driven technologies in advancing sustainable marine resource management and the blue economy.



Captive breeding of F1 maze rabbitfish (*Siganus vermiculatus*)



A total of 300 hatchery-produced F1 maze rabbitfish, *Siganus vermiculatus* were reared in 3m diameter sea cages for 20 months, attaining a mean length of 26.87 ± 0.82 cm and mean body weight of 335.75 ± 18.91 g. Forty brooders were selected and conditioned in a recirculatory aquaculture system (RAS) with a maturation diet. After two months,

43.75% of females reached the late vitellogenic stage, while 50% of males were fully mature. Induced breeding trials were conducted using LHRH-a. Spawning occurred occurring within 24 h post-injection. Mean fecundity was $154,166 \pm 22,672$ eggs per female, with a hatching rate of $86.16 \pm 11.25\%$. Larvae reared in greenwater tanks

attained a survival rate of 12–14% at 45 days post-hatch. Successful F1 broodstock breeding confirms the species' potential for assured seed production and commercial aquaculture diversification.

Tanveer Hussain, C. Kalidas, Suresh Babu P. P., Bobby Ignatius, Kurva Raghu Ramudu, Mahesh V., Sonali S. M., Praveen Dube, Nagaraj S. Gond ◆

CMFRI technology recognised among ICAR's top five fisheries innovations



The induced breeding and captive seed production technology for the Giant Trevally (*Caranx ignobilis*) developed by ICAR-CMFRI was recognised among

the top five fisheries innovations in the country by ICAR and officially unveiled by Hon'ble Union Minister of Agriculture & Farmers Welfare, Shri



Shivraj Singh Chouhan, during the 97th ICAR Foundation Day held in New Delhi on 16 July 2025.

Monsoon effects on the Indian Oil Sardine Fishery of Kerala

SUNDAY TIMES

Surge in oil sardines linked to monsoon trends, says study

Times News Network

Kochi: Monsoon rainfall trends played a vital role in the surge in oil sardine catches in Kerala, according to a new study by the Central Marine Fisheries Research Institute (CMFRI). The study, published in Current Science, highlights how monsoon-driven oceanographic changes have been shaping the boom and bust cycles of this vital fishery, underscoring the urgent need for dynamic fishery management strategies.

According to the CMFRI study, monsoon-driven changes in sea surface temperature, salinity, and oceanographic conditions have been shaping the boom and bust cycles of this vital fishery, underscoring the urgent need for dynamic fishery management strategies.

A lifeline for Kerala's fishing communities and a key export commodity, oil sardines have seen a record decline in recent years, with catches falling from 3.2 lakh tonnes in 2011 to 1.5 lakh tonnes in 2024. However, in 2023, an unusual surge in catches was reported across Kerala's coastal waters, leading to an unprecedented surge in recruitment.

Later, this condition also increased competition for sardine resources among the recruits, leading to poorly fed fish and lower weight gains for the next-year-class fishes. The monsoon impact was felt in the recruitment of the next-year-class fishes.

The study also pointed out that monsoon productivity indicators – especially the intermonsoon component of chlorophyll-a – played a stronger role in sardine recruitment than the traditional indicators – especially the monsoon component of chlorophyll-a – played a stronger role in sardine recruitment than the traditional indicators.

With an inter-regional approach, the CMFRI study in regional fishery, linking and oceanographic data from Kerala, Visakhapatnam and Chennai. According to the study, the phenomenon was triggered by positive monsoon-related trends coupled with recruitment of the fish larvae in the intermonsoon period.

CMFRI researchers called for the development of – especially the intermonsoon period – short-term fishery forecast models and dynamic harvest rules to ensure sustainability.

Boom-and-bust cycles of sardine linked to monsoon and oceanographic changes: study

The Hindu Businessline

Monsoon, oceanographic changes influence fluctuations in sardine availability: CMFRI study

By N. S. Srinivasan

Monsoon, oceanographic changes influence fluctuations in sardine availability: CMFRI study

Monsoon, oceanographic changes influence fluctuations in sardine availability: CMFRI study

the hindu businessline.

Monsoon, oceanographic changes influence fluctuations in sardine availability: CMFRI study

By N. S. Srinivasan

Monsoon, oceanographic changes influence fluctuations in sardine availability: CMFRI study

M Mathrubhumi മാതൃഭൂമി

മൺസൂൺ മഴയിൽ മത്തി പെരുകിയെന്ന് പഠനറിപ്പോർട്ട്

മൺസൂൺ മഴയിൽ മത്തി പെരുകിയെന്ന് പഠനറിപ്പോർട്ട്

മൺസൂൺ മഴയിൽ മത്തി പെരുകിയെന്ന് പഠനറിപ്പോർട്ട്

M Mathrubhumi മാതൃഭൂമി

മെറുമത്തി പിടിക്കരുത്

മെറുമത്തി പിടിക്കരുത്

മെറുമത്തി പിടിക്കരുത്



Asianet News

മത്തി ഏറ്റവും കൂടുതൽ വരുന്നത് മൺസൂൺ കാലത്താണ്. ഇതിനോടനുബന്ധിച്ച് മത്തിയുടെ വിലയും ഉയരും.

മത്തി ഏറ്റവും കൂടുതൽ വരുന്നത് മൺസൂൺ കാലത്താണ്. ഇതിനോടനുബന്ധിച്ച് മത്തിയുടെ വിലയും ഉയരും.

Asianet News

മത്തി ഏറ്റവും കൂടുതൽ വരുന്നത് മൺസൂൺ കാലത്താണ്. ഇതിനോടനുബന്ധിച്ച് മത്തിയുടെ വിലയും ഉയരും.

മത്തി ഏറ്റവും കൂടുതൽ വരുന്നത് മൺസൂൺ കാലത്താണ്. ഇതിനോടനുബന്ധിച്ച് മത്തിയുടെ വിലയും ഉയരും.

മലയാള മനോരമ

മത്തിക്ക് വിനയായത് മൺസൂൺ മഴയിലെ മാറ്റമെന്ന് പഠനം

മത്തിക്ക് വിനയായത് മൺസൂൺ മഴയിലെ മാറ്റമെന്ന് പഠനം

മത്തിക്ക് വിനയായത് മൺസൂൺ മഴയിലെ മാറ്റമെന്ന് പഠനം

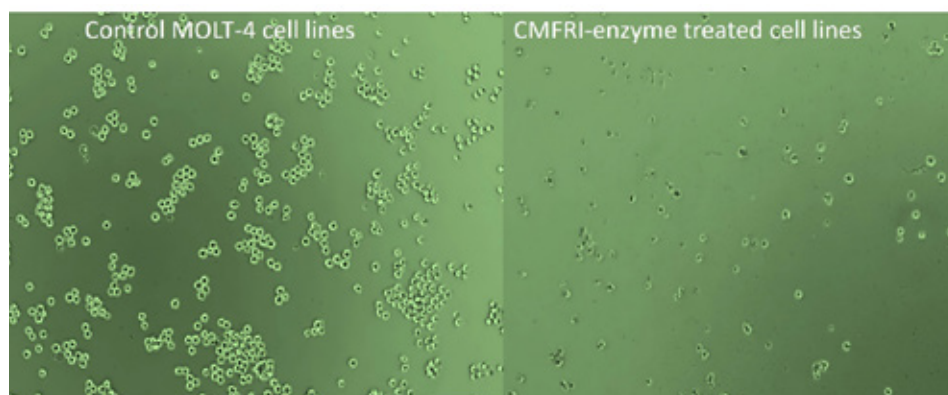
The Indian Oil Sardine (IOS) fishery is a highly environment-driven fishery resource that is influenced by annual rainfall trends. Landings fluctuated from 3.2 lakh tonnes in 2011 to 3.99 lakh t in 2012, sharply declining to 13,154 t in 2020 before recovering to 35,000 t in 2021, 1.4 lakh t in 2023, and 1.5 lakh t in 2024. The sharp increase in the recruitment of young sardines during the 2024 fishing season influenced fish availability, trade, and fisher livelihoods in Kerala. ICAR-CMFRI reported that favourable rainfall and higher microplankton abundance improved larval survival and recruitment of Indian oil sardine in Kerala, resulting in the dominance of the 0-year size class during 2024 (Current Science, 129(6): 553–558). Increased food competition reduced

weight gain, while climate change-driven oceanographic variations further influenced the fishery. ICAR-CMFRI suggested the following measures to the Dept. of Fisheries, Govt. of Kerala, for ensuring sustainable IOS fisheries:

- Strictly enforce the Minimum Legal Size (MLS) of 10 cm. Even in favourable years like 2024 with abundant recruits, harvesting below MLS undermines sustainability
- Infrastructure development through cold storage and value chains can improve fishermen's livelihoods by preventing sudden price crashes during glut periods and reducing unsustainable

- fishing practices.
- The KMFR (notification dated 1 September 2018) permits sardine seine net (chala vala) with a mesh size of 22 mm and anchovy nets (netholi vala) at 10 mm. Small mesh nets permitted for anchovy fishing should not be used for targeting sardines.
 - Address livelihood issues by extending necessary economic support to traditional sardine fishers during environmentally unfavourable years, within a science-based policy framework.

Novel anti-leukaemic enzyme from crab haemolymph-associated bacteria



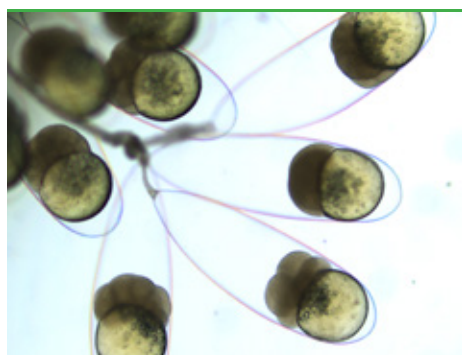
Researchers from ICAR-CMFRI have identified a promising new candidate for blood cancer therapy from a bacterium inhabiting crab haemolymph. The enzyme, a type II L-asparaginase, was purified from *Chryseomicrobium amylolyticum*, a bacterium isolated from the haemolymph of *Scylla serrata*. It has shown strong potential as an alternative to existing anti-leukaemic drugs. L-asparaginase is widely used in the treatment of acute lymphoblastic leukaemia and related

malignancies, but currently available formulations from terrestrial bacteria often cause severe side effects, including immunogenicity, hepatotoxicity, and hypersensitivity. This newly identified enzyme stands out due to the lack of concurrent L-glutaminase and urease activities, which are major contributors to these adverse effects. *In silico* analyses demonstrated its substrate specificity, reduced immunogenicity, and toxicity compared to existing enzymes, along with promising

stability and kinetic properties. Its anticancer potential was validated against breast cancer and two leukaemia cell lines, with minimal effects on normal cells, across two independent research centres in Kerala. Recognising its clinical potential further research has now received funding support from ICMR-DHR.

Sumithra T. G., Lailaja V. P., Anusree V. N., Kishor T. G., Krupesha Sharma S. R. ◆

Captive seed production of bluefin watchman goby, *Cryptocentrus fasciatus*



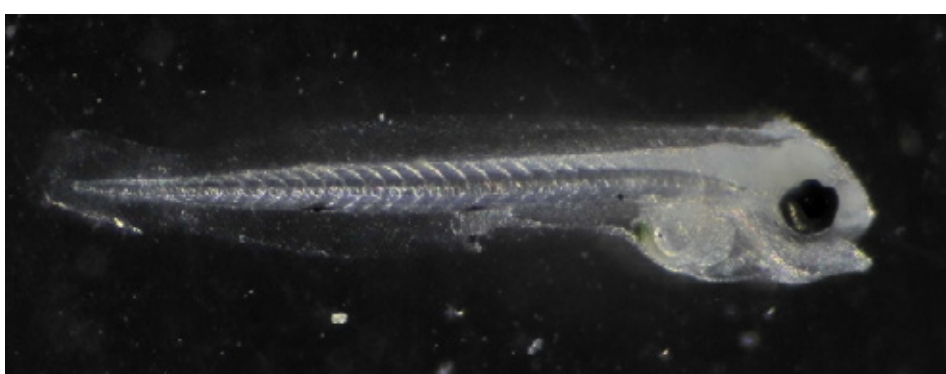
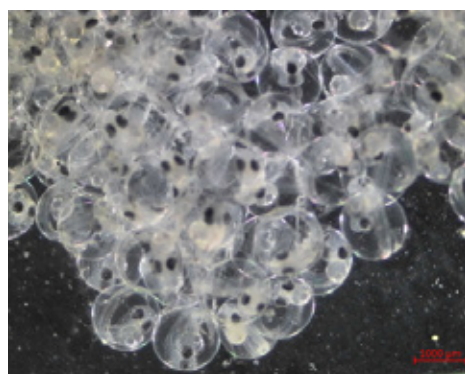
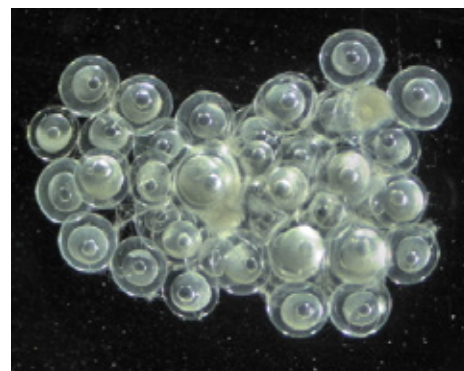
The bluefin watchman goby, *Cryptocentrus fasciatus* (Playfair, 1867), also known as the Y-bar shrimp goby, is a reef-associated species distributed in the Indo-West Pacific at depths of 5–20 m. It is hardy, exhibits iridescent blue stripes on the anal fin and brown body bands, and is valued in marine

aquariums. This is the first report of captive seed production of *C. fasciatus* from India. Twelve broodfish were collected from the coastal waters of Tamil Nadu and transported in oxygen-packed polyethylene bags. After 15 days of quarantine, the fish (9.3–12.4 cm) were stocked in 250 L FRP tanks

and fed twice daily with formulated broodstock feed. The well-aerated tanks were provided with a biofilter and broodstock shelters (1.5-inch PVC pipes). After six months, pairs were separated into 250 L tanks. Spawning was observed during the forenoon. Eggs (20,000–22,000) were attached to the roof of the substrate and guarded by the males, with hatching occurring after 3.5 days. Larvae were initially reared on copepod nauplii, followed by *Artemia nauplii* and inert feed. Larval settlement was completed by 40–45 dph.

Krishna Sukumaran, Ambarish P. Gop, Biju Sam Kamalam, Rathi Bhuvaneswari, Archana Satheesh, Liyakath Ali, Nisha S., Santhosh B., Madhu K. and Suresh V. V. R. ◆

Captive breeding and larval rearing of sunrise dottyback (*Pseudochromis flavivertex*)



Successful captive breeding and larval rearing of the sunrise dottyback (*Pseudochromis flavivertex*), was achieved under the All India Network Project on Ornamental Fish Breeding and Culture. The species is highly valued for its attractive colouration, small size, sturdy nature and high market value. Broodstock (5–7 cm) were stocked in a 200 L glass tank with a biological filter and PVC pipe

shelters. Spawning commenced after 10 months, during which the male enticed the female into the PVC pipe. The female deposited a spherical egg mass (~3.5 cm) and the male guarded the clutch. Embryonic development at 27°C was completed within 96 hours, with spawning intervals of 10–12 days and 500–600 embryos per clutch. Newly hatched larvae (~3745 µm) were active and surface-swimming.

By 11 dph, larvae reached 6.7 mm with a typical 'L'-shaped posture. Metamorphosis occurred between 23–35 dph and the juvenile stage was attained by 35–40 dph. Larval rearing was carried out using different combinations of enriched live feeds.

Rema Madhu, K. Madhu, Veena G., Abhijith V. T., Srisanthoshram R. K., Binoybhaskar, Aswin S. R. and Joe V. ♦

On-farm demonstration of marine finfish polyculture

An on-farm demonstration of polyculture of maze rabbitfish (*Siganus vermiculatus*) and silver pompano (*Trachinotus blochii*) was carried out by the Karwar RS to evaluate different stocking ratios using hatchery-produced fingerlings. The sea cages (3m diameter) were stocked at 15 nos. m⁻³ and reared for six months with formulated feed. Maze rabbitfish attained 19–21 cm and 155–180 g, while silver pompano reached 28–31 cm and 360–410

g, with survival rates of 84–89%. A 50:50 stocking ratio proved optimal for growth and survival. A partial harvest on 10 July 2025 (National Fish Farmers Day) yielded 140 kg of maze rabbitfish and 175 kg of silver pompano, which were sold live to Utekar Fisheries, Mumbai, demonstrating strong market demand.

Tanveer Hussain, C. Kalidas, Suresh Babu P. P., Kurva Raghu Ramudu, Mahesh V., Nagaraj S. Gond, Praveen Dube, Bobby Ignatius and Imelda Joseph ♦



Demonstration of pond culture of *Trachinotus mookalee*



A demonstration of Indian pompano (*Trachinotus mookalee*) pond culture was conducted under the SCSP scheme involving an SC SHG at Polekurru village, Kakinada. The initiative demonstrated the species' high growth rate, market demand and potential as a sustainable livelihood option for the SC community.

Visakhapatnam RC

PM-Kisan Livestreaming and Aquaculture Awareness



ICAR-CMFRI organised the livestreaming of the PM-Kisan Samman Nidhi programme on 2 August 2025 with 238 participants, including 150 farmers. As a part of this, an awareness programme on advanced aquaculture techniques, including ornamental fish culture, biofloc technology, cage and pen aquafarming, and mussel farming was also conducted.

Saju George, Rema Madhu

Livelihood support through oyster farming



The oyster farms established during December 2024 under the SCSP at Dalavapuram, Kollam, were harvested on 8 August 2025. Three Scheduled Caste groups, Mahila Mytri, Manav Mytri and Mytri, undertook oyster farming with technical support from

ICAR-CMFRI, Kochi. Hands-on training and farming inputs were provided under the scheme. After eight months of culture, harvesting was initiated by culling the larger oysters. A Harvest Mela was organised on 8 August 2025. The President of Thekkumbhaghom



Grama Panchayat, Kollam, inaugurated the harvest programme and distributed harvest-related inputs to the beneficiaries.

Geetha Sasikumar, K. Madhu, Sajikumar K. K. and Jestin Joy K. M. ♦

Mud crab culture and fattening training



The Digha RS of ICAR-CMFRI organised a three-day training programme on “Grow-out culture and fattening of mud crabs in HDPE boxes in bheries” under the SCSP from 23 to 25 July 2025 for 16 beneficiaries from the Mahakal, Monalisa and Maa Chandi groups in Purba Medinipur, West Bengal. The training covered crab biology, feeding, growth monitoring, disease management and water quality management for sustainable mud crab farming.

Subal Kumar Roul ♦

Training programme on ornamental fish culture



A three-day training programme on ornamental fish culture practices was organised by the Calicut RS of ICAR-CMFRI at Krishi Vigyan Kendra, Peruvannamuzhi, Kozhikode, for 15 Scheduled Tribe (ST) beneficiaries from Kottalida Panchayat on 16-18 September 2025. Dr. Pradeep B., SMS, delivered technical sessions on ornamental fish culture, and a field visit was arranged to provide practical exposure to the participants.

Training on polyculture of finfish with shrimps

A three-day training programme on “Polyculture of *Mugil cephalus* with *Penaeus monodon* in bheries” under the SCSP was conducted at Digha RS from 29 to 31 July 2025 for 16 beneficiaries from the Mahakal, Monalisa and Maa Chandi groups in Purba Medinipur, West Bengal. The programme focused on sustainable polyculture and livelihood diversification.



OUTREACH Training/awareness programmes

World Shark Awareness Day workshop



ICAR-CMFRI organised a workshop on “Conservation of Sharks in India—Moving Ahead with the Indian Wildlife (Protection) Act and CITES” on World Shark Awareness Day, 14 July 2025. The workshop was inaugurated by

Shri Shaik Khader Rahman, IRS, Chief Commissioner of CGST and Customs, while Smt. Neetu Kumari Prasad, IAS, JS, DoF, GoI, attended as the Guest of Honour. The workshop promoted coordinated action to curb illegal shark

fishing and trade. Recommendations emerging from the workshop included habitat mapping, public awareness, gear modifications, conservation zones, AI-enabled shark recognition tools, and a species identification manual.

Whale Shark Day and Manta Day Celebrations

ICAR-CMFRI organised painting and essay competitions for school students in Ernakulam as part of International Whale Shark Day (30 August) and International Manta Ray

Day (17 September) 2025 to promote conservation awareness. The painting theme was “Saving the whale shark/ manta ray”, and the essay topic was “Importance of conservation of

endangered sharks and rays”. Winners were selected across categories by a panel of scientists.

Livi Wilson ♦

Multi-stakeholder workshop on fisheries, aquaculture, shipping and port



ICAR-CMFRI, in collaboration with Ocean Centres India, organised a multi-stakeholder workshop on 11 September 2025 under the United Nations Global Compact (UNGC) and the Lloyd's Register Foundation initiative. The workshop was organised around two thematic sessions:

"Safety and Sustainability Issues in the Fisheries and Aquaculture Sector" and "Contributions, Impacts, Issues and Challenges of the Shipping and Ports Sector". The hybrid workshop, attended by 110 delegates from the fisheries, maritime, research and government sectors, featured expert

panel discussions and emphasised collaboration, science-based approaches, and integrated planning for India's blue economy.

Remya L. ♦

World Manta Day-workshop



A stakeholder consultation workshop on the conservation of sharks, rays and fisher livelihoods was held at Kochi on 18 September 2025 in connection with World Manta Day, with about 100 participants. The workshop was inaugurated by Shri Anil Raj, IRS, and highlighted the implications of the Wildlife (Protection) Act, 1972, for shark and ray conservation. The Director, ICAR-CMFRI, announced the constitution of a scientific committee to examine the biological and ecological characteristics of protected shark and

ray species, assess the socio-economic impacts of conservation regulations on fishing communities, and develop science-based solutions supporting marine biodiversity conservation and fisher livelihoods. The workshop concluded with a consensus on collaborative, science-driven strategies and enhanced communication among scientists, fishers and regulatory agencies.

Finfish Fisheries Division, HQ ♦

Advances in marine macroalgal research



A two-day workshop on 'Advances in marine macroalgal research for functional food and nutraceutical development' was organised at ICAR-CMFRI on 25–26 September 2025 under the ICAR-Norman Borlaug Challenge Research Project. Attended by 25 faculty members from relevant disciplines, the workshop focused on marine macroalgal research for functional food and nutraceutical development.

Awareness campaign for Siddi Tribes



A door-to-door awareness campaign was conducted among the primitive 'Siddi' Tribes of Gujarat. The eight-day campaign, held from 2 to 10 August 2025, covered Veraval, Jambur, Vithalpur, Talala, Shirvan, Thordi, Khilawad, Surva, Hadmatiya, Prabhas Patan, and Mangrol. Around 100 families were introduced to mariculture-based livelihoods through a gender-inclusive approach.

D. Divu, P. S. Swathi Lekshmi, Suresh Kumar Mojjada, Ramshad T. S., Aarsha S., Prachi S. Bagde, Mayur S. Tade ◆

Empowering coastal women through seaweed farming

Seven women self-help groups (SHGs) were formed for seaweed farming in Gir Somnath, Gujarat, involving economically weaker women engaged in fisheries and allied coastal livelihoods. Awareness and capacity-building programmes were

conducted to promote sustainable and remunerative mariculture-based enterprises under state and central schemes.

Divu D., Suresh Kumar Mojjada, P. S. Swathi Lekshmi, Jayesh Devaliya, Sagar Jadav ◆

Sea ranching of cephalopods



The Tuticorin RS of CMFRI carried out a sea ranching programme of commercially important cephalopod juveniles on 18 July 2025. A total of 2,700 *Sepia pharaonis* and 1,300 *Sepioteuthis lessoniana* juveniles

(about 20 days old) were released into selected coral reef habitats of the Gulf of Mannar known to support their natural growth. The egg cases of both species were collected from the wild and reared under controlled hatchery



conditions until they attained a suitable size for sea ranching.

M. Kavitha, L. Loveson Edward, D. Linga Prabu, K. R. Veera Venthan, V. Vidhya and S. Willington ◆

Brainstorming session on seaweed culture



A brainstorming session on 'seaweed culture' was held on 17 September 2025 at the Tuticorin RS, covering aspects of seaweed culture, water quality concerns, culture materials, production details, sources and status of water pollution and associated health issues, and the socio-economic impact of seaweed farming. Farmers cultivating *Kappaphycus alvarezii* and collecting wild *Gracilaria edulis* in Mullakadu and Pullaveli highlighted industrial pollution as the major threat. They requested ID cards, stricter pollution control, certification for seaweed cultivation, price fixation and dedicated drying platforms.

Impact of marine litter and ghost net fishing

An awareness workshop on 'Impact of marine litter and ghost net fishing' was conducted on 25 July 2025 at Vizhinjam RC under the KSBB-funded project, "Identification and Removal of Ghost Fishing Nets in Selected Fishing Zones of the Trivandrum Coast for Developing Strategies for Regular Monitoring of the Marine Ecosystem". The programme was inaugurated by Dr. Salom Gnana Thanga Vincent, Professor, University of Kerala. A poster-making competition on ghost net fishing, marine litter pollution and sustainable oceans was organised, in which over 100 students participated. Best posters were awarded, and participation certificates were distributed.



Training programme on IMTA



A training programme on "Integrating mussel farming with sea cage and seaweed farming" was successfully conducted at the Visakhapatnam RC of ICAR-CMFRI on 4 August 2025 in partnership with the LAYA Foundation, an NGO working in coastal communities of Andhra Pradesh. Expert lectures were delivered by scientists from various CMFRI centres, and 68 participants, including farmers, traders and students, attended the programme.

Joe K. Kizhakudan, Indira D., Sekar Megarajan, Jasmin Felix. ◆

Strengthening ETP Species conservation in coastal Karnataka



Awareness programmes on species identification, conservation, SOPs for safe handling and safe release practices of endangered, threatened and protected (ETP) elasmobranchs were conducted at Kumta, Bhatkal,

Byndoor and Udupi during July–August 2025 by ICAR-CMFRI, Mangalore RC, in collaboration with the DoF, Govt. of Karnataka. The initiative formed part of the part of the Karnataka State FIP on small pelagic purse seine fisheries

aimed at promoting sustainable fisheries and marine biodiversity conservation.

Mangalore RC ♦

Regional workshop on deep-sea resource exploration and ETP species conservation

A one-day regional workshop titled “Developments in deep-sea resource exploration and endangered, threatened, protected (ETP) species conservation: awareness and way forward” was organised by ICAR-CMFRI, Mangalore RC, in collaboration with the DoF, Govt. of Karnataka, and Karnataka State FIP at Mangaluru on 5 July 2025. The workshop was inaugurated by Shri Dinesh Kumar Kaller, Director, DoF, Govt. of Karnataka. Expert talks highlighted ETP species conservation and sustainable deep-sea resource exploration. Posters on protected marine fauna under the Wild Life (Protection) Amendment Act, 2022 were distributed to fishers, followed by an interactive discussion on field challenges and sustainable fisheries practices.



Significant landings of *Lutjanus rivulatus* at Thoothukudi



On 28 August 2025, heavy landings of Humpback red snapper (*Lutjanus rivulatus*) were recorded at Therespuram along the Thoothukudi Coast. This reef-associated demersal species was caught using hook-and-line (No. 8–10) and drift gillnets during

multi-day fishing operations at depths of 15–73 m fathoms and at distances of 60–80 miles offshore. Specimens measured an average length of 51.23 cm. July to September is the peak landing season for this species. On the day of observation about 1–2 t were landed.

The species fetched around ₹400 per kg due to its high local and export demand, highlighting its commercial importance.

Vidhya.V, Veera Venthana. K.R, M. Kavitha, Loveson Edward. L and D. Linga Prabu ♦

Protected widenose guitarfish released at Karwar



During routine observations at fish landing centres along the Karwar Coast in September 2025, accidental capture of the widenose guitarfish (*Glaucostegus obtusus*), a Schedule I species protected under the Indian Wildlife (Protection) Act, 1972 (amended in 2022) was documented. The first case, recorded on 18 September 2025 at the Majali fish landing centre, involved two live, mature female guitarfish (60 cm and 78 cm) entangled in gillnets. Following awareness provided to fisherwomen on the species' protected status, both specimens were voluntarily and safely released. A second incident on 26 September 2025 at Aligadda Beach involved a mature female (107 cm), with fishermen immediately alerting CMFRI authorities and cooperating in its safe release. The incidents highlight the effectiveness of continued outreach and collaboration with local fishing communities in supporting marine conservation.

Maresh V., Kurva Raghu Ramudu, Tanveer Hussain and Nagaraj M. D. ♦

Samudra sangamam



A stakeholder workshop, 'Samudra sangamam', inaugurated by Dr. Maja Jose, Deputy Director, DoF, Kerala, was held at ICAR-CMFRI on 27 August 2025 to present findings from the Kerala chapter of the NASF-funded project investigating

the "Changing dynamics of labour migration on employment, livelihoods and resource productivity patterns in the Indian marine fisheries sector." migrant labourers now constituted 58% of Kerala's marine fisheries workforce, with proportions as high

as 78% at the Munambam Harbour. The workshop also aimed to validate the findings and gather stakeholder inputs on livelihoods and resource productivity.

Shyam S. Salim, Anuja A. R. and Uma Maheswari T ◆

Seed Release of Marine Ornamental Fishes

Hon'ble Union Minister of State for Fisheries, Animal Husbandry and Dairying and Minority Affairs, Shri George Kurian, released captive-bred fish seed and brochures on the breeding technology of lemon damselfish (*Pomacentrus moluccensis*) and citron goby (*Gobiodon citrinus*) on 28 August 2025 during the inauguration of the "Matsya Shakti" project. These marine ornamental fishes are valued for their vibrant colouration, hardiness and market demand in the ornamental fish trade. The seed production technology



for both species was successfully standardised by the Mariculture Division of ICAR-CMFRI's Vizhinjam Regional Centre, marking an important

milestone in marine ornamental aquaculture.

Mariculture Division, Vizhinjam RC, ICAR-CMFRI. ◆

Joint secretary (Marine Fisheries) visits mussel hatchery at Vizhinjam RC

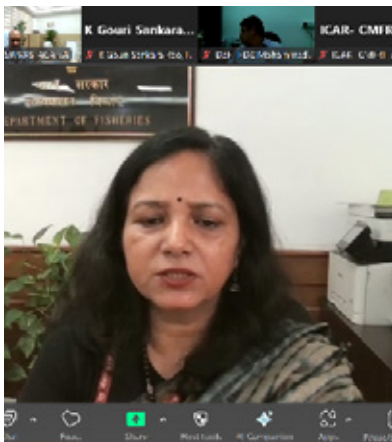
On 19 September 2025, the Joint Secretary (Marine Fisheries), Minister of Fisheries, Animal Husbandry & Dairying, GoI, Ms. Neetu Kumari Prasad and Chief Executive, NFDB, Dr. Bijay Kumar Behera visited the mussel hatchery at Vizhinjam RC, established under the PMMSY project "Development of pilot-scale open sea eco-mussel farms in India – A blue growth initiative." During the visit, the officials reviewed the infrastructure and operations of the facility including the broodstock room, larval rearing section, micronursery, and the photobioreactor system designed for large-scale microalgal production.

M. K. Anil, P. Gomathi, Ajina S. M., P. M. Krishnapriya and O. Shalini ♦



OFFICIAL LANGUAGE IMPLEMENTATION

National Scientific Hindi Webinar



National Scientific Hindi Webinar on the topic "Importance of Marine Census in Fisher Development" was organised at ICAR-CMFRI, Kochi on 13 August 2025. Ms. Neetu Kumari Prasad, IAS, JS (Marine Fisheries), DoF, Ministry of Fisheries, Animal Husbandry and Dairying, GoI, inaugurated the webinar online.



Dr. Ajay Srivastava, Economic Adviser, and Dr. Mohammed Koya, Fisheries Development Commissioner, DoF, also attended the seminar. The Director, ICAR-CMFRI, highlighted that the institute has developed a mobile and tablet-based app, VyAS-NAV, by adopting new technologies to help reduce

manual errors and make data available quickly and accurately for policy-making. Dr. J. Jayasankar made a presentation on the marine fisheries census, following which prizes for the best presentations were distributed to staff participants.

Hindi Workshop



A Hindi Workshop on “Usage of Hindi in Official Purposes and Spoken Hindi” was conducted on 29 September 2025 to encourage the use of Hindi in official work and improve spoken Hindi skills among

staff members. The session was handled by Dr. Radhika Devi, Deputy Director (Retd.), Hindi Teaching Scheme, Kakkanad, Official Language Department. Staff members actively participated in the workshop.

Official Language Inspection

Shri. Nirmal Kumar Dubey, Deputy Director, Regional Implementation Office (South-West) Department of Official Language, Ministry of Home Affairs, GoI, Kochi inspected the official language activities of CMFRI Headquarters on 18 September 2025.

Hindi Fortnight Celebration 2025



Hindi Fortnight was observed at ICAR-CMFRI from 15–29 September 2025. Hindi Memory Test and Hindi Typing competitions were held offline, while Hindi noting & drafting, Hindi quiz, Hindi poem recitation, and Hindi

picture description competitions were conducted in hybrid mode. Officials from the Headquarters and all the Regional Centres/ Stations participated in Hindi competitions. The valedictory function was held on 15

October 2025 with Dr. P. Shalini, Hindi lecturer and writer, as the Chief Guest and prizes were distributed to the winners. The Co-ordination section received the Rajbhasha Rolling Trophy.

Swachhata Hi Seva Campaign 2025



The Swachhata Hi Seva Campaign 2025 (Swachhotsav) was organised at ICAR-CMFRI from 17 September to 1 October 2025. Activities included cleanliness drives, coastal

clean-ups, tree plantation, rallies, awareness programmes, fishing harbour sanitation, marine litter management, human-chain demonstrations and community outreach



initiatives at Headquarters and all Regional Centres, promoting waste management, recycling and environmental sustainability.



Best Performance Award for IMTA Project



The NABARD-funded project titled "Environmental Sustainability through Integrated Multi-Trophic Aquaculture (IMTA): A participatory approach for the socio-economic upliftment of coastal fishers of Thoothukudi District, Tamil Nadu", implemented by ICAR-CMFRI, Tuticorin RS, received the Best Performance Award under the Farm Sector Promotion Fund

(FSPF) category. The award was presented during NABARD's 44th Foundation Day on 11 July 2025 at Chennai. The project also demonstrated successful cage culture of Asian sea bass at Sippikulam, yielding 420 kg from 500 juveniles in three batches.

Loveson Edward L., Ranjith L., Linga Prabu D., Kavitha M., Veera Venthan K. R. and Vidhya V. ♦

Mangalore RC receives TOLIC award



Mangalore Regional Centre of ICAR-CMFRI secured the Rajbhasha Shield and Certificate (First Position) under the Central Government Offices (less than 50 employees) category for excellence in the implementation of the Official Language during 2024–25. The award was presented by the Town Official Language Implementation Committee (TOLIC), Mangaluru, during its 76th half-yearly meeting.

CMFRI scientist at FAO panel on CITES



Dr. Shoba Joe Kizhakudan, Principal Scientist & Head, FFD, participated in the 8th FAO Expert Advisory Panel on CITES Listing Proposals at

FAO Headquarters, Rome, during 21–25 July 2025. The output of the 8th Panel provided formal advice to more than 180 CITES

country representatives for voting on listing proposals in Samarkand, Uzbekistan in November 2025.

CMFRI steps into Arctic research

Dr. Adnan H. Gora, Scientist at ICAR-CMFRI, Kochi, participated in the Indian Arctic Expedition (June 2025), for field investigations on Arctic plankton dynamics in Kongsfjorden. The expedition marked CMFRI's entry into Arctic research and focused on strengthening India's role in climate-linked marine science.



Exhibitions

Date	Event	Organised/participated by
1-3 July 2025	Seafood Expo Bharat, Chennai	Madras Regional Station, ICAR-CMFRI & MPEDA
15 August 2025	Independence Day celebration-2025, Police grounds, Visakhapatnam	Visakhapatnam Regional Centre, ICAR-CMFRI
18-19 September 2025	Kerala-European Union Blue Economy Conclave 2025, Kovalam, Thiruvananthapuram.	Vizhinjam Regional Centre, ICAR-CMFRI
23-27 September 2025	12 th Symposium on Diseases in Asian Aquaculture, Chennai.	Madras Regional Station, ICAR-CMFRI & ICAR-CIBA
25-28 September 2025	World Food India, Bharat, Mandapam, New Delhi	Veraval Regional Station, ICAR-CMFRI.

PERSONNEL

Promotions

Name & Designation	Promoted as	Effective Date
Smt. N. G. Supriya Assistant	Assistant Administrative Officer	01.04.2018
Dr. C. Kalidas Principal Scientist	Principal Scientist (level-14)	07.01.2024
Dr. Biji Xavier Senior Scientist	Principal Scientist (level-14)	11.02.2024
Dr. Ramesh Kumar Senior Scientist	Principal Scientist (level-14)	26.02.2024

MACP-Scheme

Name with Designation & Place of posting	Pay Matrix	Effective Date
Shri S. Mariappan, MTS CMFRI, Tuticorin RS.	3 rd MACP Pay Matrix Level-04 Rs.25,500-81,100/-	30.08.2025

Assumption of charge

Name	Designation
Dr. Josileen Jose, Principal Scientist	Head-in-Charge, SFD, CMFRI, Kochi.

Probation clearance

Name of the Employee & Designation	Date of Initial Appointment	Date of Completion of Probation Period	Date of Clearance of Probation Period
Shri Vasamsetti Ravikanth Visakhapatnam RC of CMFRI.	15.06.2020	14.06.2022	15.06.2022
Smt. Bebutai Laxman Korabu Karwar RS of CMFRI	20.10.2022	19.10.2024	20.10.2024
Shri Deepak Ramesh Rao Mumbai RS of CMFRI	14.10.2022	13.10.2024	14.10.2024
Shri Vishal Dayanand Jangam Digha RS of CMFRI	20.10.2022	19.10.2024	20.10.2024

Relieving

Name & Designation	From	To	Effective Date
Shri Hareesh Nair Chief Administrative Officer (S.G)	ICAR-CMFRI, Kochi	ICAR- Headquarters New Delhi	14.07.2025 (A.N)

Transfer

Name & Designation	From	To	Effective Date
Shri P. Harshakumar Technical Officer (Motor Driver)	Mangalore Regional Centre	ICAR-CMFRI, Kochi	29.09.2025 (A.N)

Deputation

Name & Designation	From	To	Effective Date
Dr. Madhumita Das, Chief Technical Officer	Puri Field Centre of ICAR- CMFRI	ICAR-CIFA, Bathinda, Punjab	08.08.2025 (A.N)

Smt. Deepa P. Upper Division Clerk	Govt. Polytechnic College, Kalamassery	ICAR-CMFRI, Kochi	30.09.2025 (F.N)
---------------------------------------	---	-------------------	---------------------

Retirements on Superannuation



Smt. Meera K. N.

Administrative Officer

31.07.2025

ICAR-CMFRI, Kochi



Dr. Dinesh Babu A. P.

Principal Scientist & Head, SFD

31.07.2025

ICAR-CMFRI, Kochi

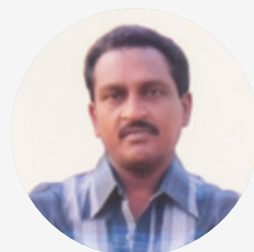


Dr. D. Prema

Principal Scientist MBEMD, CMFRI, Kochi

31.07.2025

ICAR-CMFRI, Kochi



Shri P. Venkitaramana

Technical Officer

31.08.2025

Visakhapatnam RC, ICAR-CMFRI



Shri S. Mohammed Sathakathullah

Technical Officer

31.08.2025

Tuticorin RS, ICAR-CMFRI



Shri K. G. Radhakrishnan Nair

Technical Officer (Motor Driver)

31.08.2025

ICAR-CMFRI, Kochi



Shri K. Diwakar

Chief Technical Officer

30.09.2025

Chennai RS, ICAR-CMFRI



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.

E-mail: director.cmfri@icar.org.in | www.cmfri.org.in