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Newsletter of ICAR-Central Marine Fisheries Research Institute

INSIDE

Headlines

Hon'ble Vice President dedicates snapper seed production technology to the nation

The Hon'ble Vice President of India, Shri M. Venkaiah Naidu formally dedicated the new, indigenously developed seed production technology of the highly valued John's snapper, to the nation. In a function held at Visakhapatnam Regional Centre of ICAR-CMFRI on 7th December, 2020, two progressive fish farmers received from Shri Venkiah Naidu, the snapper seeds which are a premium species for mariculture. Addressing the scientific fraternity, the Hon'ble Vice President of India lauded the commendable

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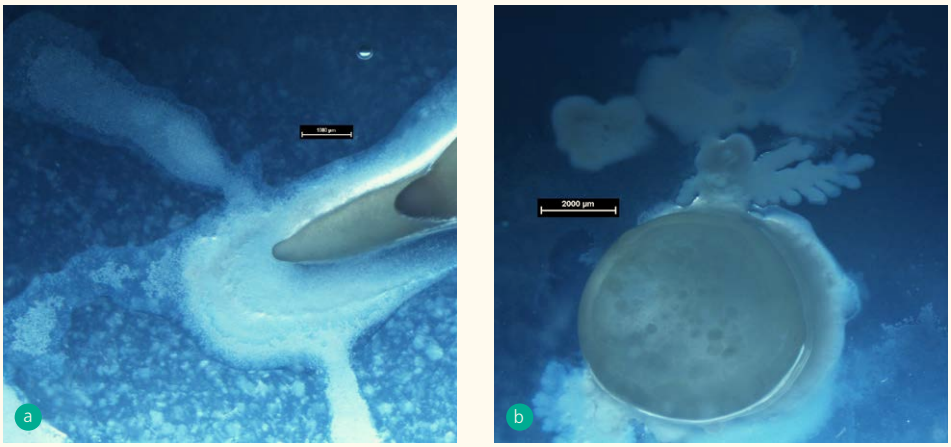
Success story in micro propagation of *Kappaphycus* with gametophyte stage



Micropropagtion of Kappaphycus (a) Gametophytic stage (b) Callus formation

Spurred by increasing global demand for carrageenan in processed food industry, the seaweed *Kappaphycus* spp has been cultivated in Southeast Asia since early 1970s. This robust red seaweed species shows high growth rate, has short culture period (45-60days) and produces nearly 50% of carrageenan of its dry weight. In India, cultivation of *Kappaphycus alvarezii* has recently picked up significantly in the coastal districts of Tamil Nadu, Andhra Pradesh and Gujarat and there is demand for more seed material from farmers. To meet this demand, development of technologies for transportation of seed in live condition, maintenance of seed material during adverse environmental conditions and easy methods of seeding is important. For this, micro-propagation of seaweed is being experimented globally. A successful technology to produce seaweed propagules from *Kappaphycus* for commercial farming is yet be established,

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Director Speaks

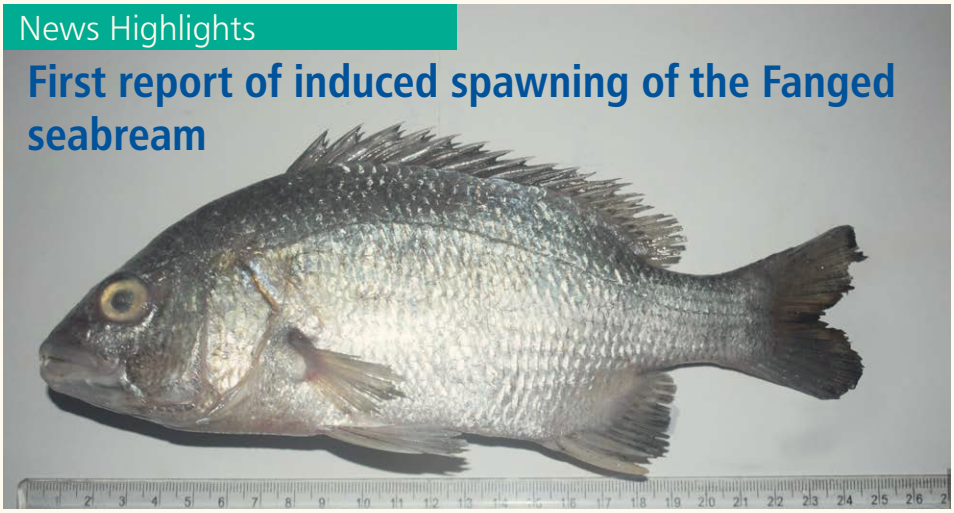
As the year 2020 comes to a close, it has to be admitted that it has been an extremely challenging period, because of the impact of Covid 19 pandemic in all sectors, including fisheries. It has also been an opportunity to draw on our inherent strengths and rise to the occasion. I am happy to note that major milestones such as dedication of the snapper seed production technology to the nation and the establishment of a broodbank for the Indian pompano have been reached. Research activities have also progressed well and there have been several outreach programmes to benefit the stakeholders. I extend my best wishes to all to build further on these achievements, in the coming year 2021 also.

With best wishes

A. Gopalakrishnan
Director, ICAR-CMFRI

News Highlights

First report of induced spawning of the Fanged seabream



The first successful induced spawning of the sparid fish, *Sparidentex jamalensis* Amir, Siddiqui & Masroor, 2014, has been reported from the Karwar Research Station of ICAR-CMFRI in December 2020. Female fishes implanted with cholesterol based LH-RH pellets spawned after 48 hours of pellet implantation and hatching of the fertilised eggs occurred after 18 to 20 hours. Standardisation of the larval rearing using copepods and rotifers as live feed is in progress.

Reported by P. P. Suresh Babu, A. Anuraj, Jayasree Loka, K. Raghu Ramudu, K. Srinivasa Rao, Praveen, N. Dube, S. M. Sonali, and N. G. Vaidya ◆

Incidental catch of Whale shark in shore seine

A live Whale shark *Rhincodon typus* Smith, 1828 was caught accidentally in a shore seine operation at New Podampeta landing centre (19°26'02.148''N, 85°07'44.364''E), Ganjam, Odisha on 12 December 2020 at 18.00 hrs. Measuring about 12 feet long, it was released alive by the fishermen. Listed by the International Union for Conservation of Nature (IUCN) in Endangered (EN) category,in India, it has been given the highest protection by its inclusion under the Schedule-1 of the Indian Wildlife (Protection) Act, 1972.

Reported by: Subal kumar Roul, Puri Field Centre ◆

Published by: Dr. A. Gopalakrishnan, Director, ICAR–Central Marine Fisheries Research Institute, Post Box No.1603, Ernakulam North P. O., Kochi-682 018, Kerala, India.
Editor: Dr. U. Ganga **Editorial Committee:** Dr. R. Ratheesh Kumar, Dr. Livi Wilson, Dr. N. S. jeena, Mrs. E. K. Uma, Mrs. V. Vandana
Assisted by: Mr. Arun Surendran, Mr. C. V. Jayakumar, Mr. P. R. Abhilash

Redescription and molecular characterization of *Crenidens macracanthus*

Günther's karanteen, *Crenidens macracanthus* was originally described by Günther (1874) based on a single specimen collected from Chennai (Madras), south-east coast of India. Subsequently, the species was synonymized with *Crenidens indicus* by Day (1875) but Iwatsuki and Maclaine (2013) resurrected it from synonymy and redescribed it as a valid species based on the holotype and non-type specimen. Based on examination of 30 additional specimens of 105.8–162.2 mm SL, collected from the Bay of Bengal detailed morphological description and phylogenetic analysis using COI barcodes of the species (NCBI GenBank accession numbers MT179595–MT179596 and Marine Biodiversity Museum ICAR-CMFRI, Kochi accession number GB.31.142.12.2)) has been reported (Journal of the Marine Biological Association of the United Kingdom: https://doi.org/10.1017/S0025315420000880). The species in fresh condition can be easily distinguished from its two congeners (*C.crenidens* and *C. indicus*) by the yellowish tip of the lower caudal-fin lobe.

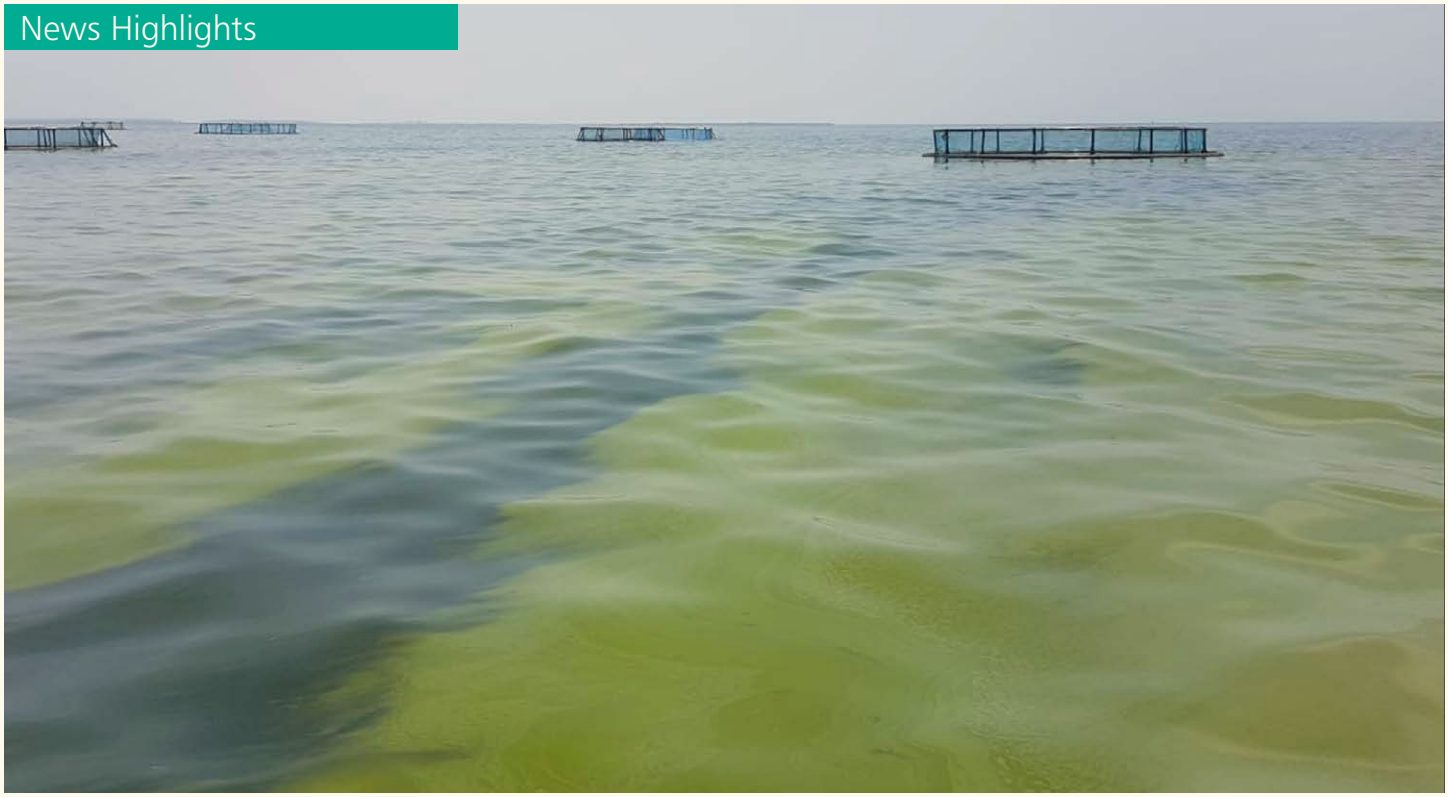
Reported by: Subal Kumar Roul, N. S. Jeena, Shubhadeep Ghosh and Prathibha Rohit

Giant grouper caught in hook and line

A single specimen of *Epinephelus lanceolatus* was caught in a hook and line operated at in the Munambam estuary. The fish measured 112 cm in total length and weighed 16.83 kg. The species is reported to grow up to a size of 270 cm and can weigh upto 400 kg.

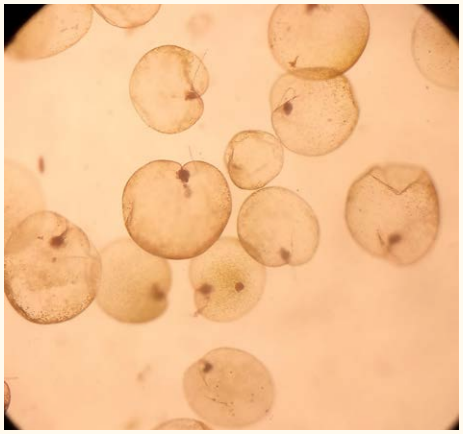
Locally known as "*Valiyakarup*" and "*Valiyakalava*" it is protected in India under the Wild Life (Protection) Act, 1972 and was released back into the sea after its measurements were recorded. Recreational fisheries with hooks and lines are common in the Munambam estuary during high tides. Regular field surveys at fish landing centres by the Fishery Resources Assessment Division enables reporting of rarely landed species and record sizes of fishes, which is of interest to researchers.

Reported by: M. A. Jishnudev, M. Muktha, T. Kishor and Paulose J Peter

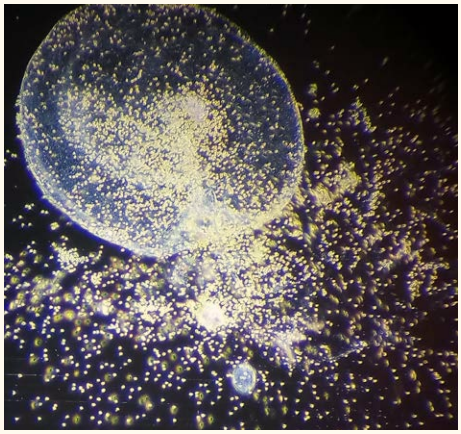


Algal bloom in Gulf of Mannar

The occurrence of deep green algal bloom started along the coast of Gulf of Mannar on 29th September 2020 from Mandapam (9.2770° N, 79.1252° E) to Vedhalai (9.2723° N, 79.1040° E) and the algal crashing subsequently was recorded. The bloom re-occurred on 5th October 2020 and completely disappeared on 7thOctober, 2020. Sporadic blooms occurred from Thonithurai to Pudhumadam during 30th September to 20th October 2020. The bloom was caused by the bio-luminescent dinoflagellate *Noctiluca scintillans* (Macartney) and commonly known as the sea sparkle. The fresh water inflow into the sea effected by the south west monsoon, absence of wind speed and water currents maybe predisposing factors for this seasonal blooming. During the 8 days of observation, there no mortality of wild or cultured fish was reported. Algal blooms often cause fish kills due to the associated phenomenon of anoxia.



Wet smear examination of *Noctiluca scintillans*



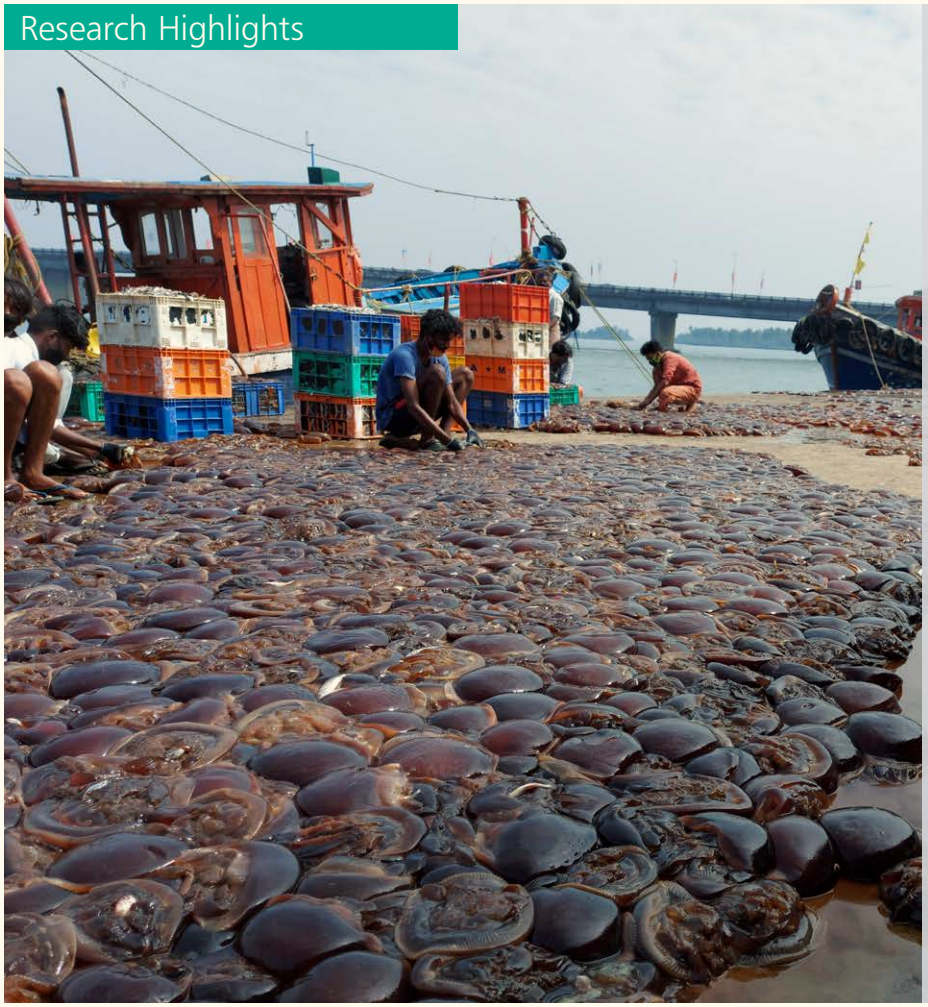
Bioluminescence of busted out sparkles under dark field microscopy

Reported by: P. Rameshkumar, S. Thirumalaiselvan, R. Jayakumar, M. Sankar, G. Tamilmani, M. Sakthivel, K. K. Anikuttan, N. Krishnaveni and T. T. Ravikumar
Mandapam Regional Centre ◆

..... *continue from page 1*

unlike for seaweeds such as *Porphyra* and *Laminaria*. In this context, micro propagation of *Kappaphycus* in the tissue culture laboratory of ICAR-CMFRI has indicated encouraging results. It was recorded that along with the formation of callus development of gametophytic stage and profuse branching of thallus also could be established in the laboratory. By manipulating the concentrations of plant growth hormone administered along with light intensity and photoperiod, tissue culture of *Kappaphycus* could be established in this study. These results are highly encouraging and can assist in scaling up production of seaweed germlings for commercial cultivation. Further work aimed at mass production of seedlings from a limited biomass of plants, under controlled environmental conditions, is in progress.

Reported by: Dr. Reeta Jayasankar, Fishery Environment Management Division ◆



Unprecedented seasonal jellyfish landings

Unprecedented large numbers of the catostylid jellyfish *Crambionella orsini* was observed along the Neendakara coast in Kerala following extensive blooms of the species in the post-monsoon period. Shrimp trawlers fishing at a depth of 15-20 m in inshore waters off Kollam landed 800 kg to 1 ton per boat with landing centre prices being around 5 per kg. Preliminary processing of the jellyfish catch was done at the Neendakara Fisheries Harbour itself by separating the oral arms from the umbrella of the jellyfishes. The oral arms were transported by truck to local ice plants where it was brined and packed. The packaged product is exported to several Asian countries such as China, Japan, South Korea, Thailand and Vietnam by firms based in Andhra Pradesh.

Reported by: Marine Biodiversity Division &Fishery Resource Assessment Division

NFDB funded open water cage culture project a boon for fishers in Karnataka

With funding support by the National Fisheries Development Board, Mangalore Regional Centre and Karwar Research Station of ICAR-CMFRI installed 483 cages in the coastal waters of Karnataka thereby benefitting 314 fishers. The NFDB funding has helped to expand the area of aquaculture area as well as initiate several interested aquafarmers famers to take up mariculture activities in Karnataka. The species farmed included *Lates calcarifer, Lutjanus argentimaculatus* and *Rachycentron canadum.* Technical guidance was extended by the team from ICAR-CMFRI to all the beneficiaries during the culture period which varied between 6 -8 months. With 100% fund utilization the project has emerged highly successful. The Harvest mela was organized by the beneficiaries in respective areas. In 2008, the Mangalore Research Centre had initiated culture of finfishes in customized small cages in the nearshore waters off Udupi which lay the foundation for this success story ◆

Depuration and Value added Production units for farmed bivalves rolled out

Mussel and oyster farming has became an income-generating activity for coastal fishers, particularly for women self-help groups in Ernakulam District, thanks to the efforts of ICAR-CMFRI under an NAIP project. A common depuration facility set up in Sathar Island by ICAR-CMFRI under NAIP Project for value addition of farmed bivalves and ensuring safe consumption, was highly appreciated by the farmers as it gave them higher economic returns, especially from high end star hotels. One such enterprising farmer developed a depuration and Value added Production (DVAP) unit which was inaugurated on 14.12.2020 by Dr. K. S. Mohamed, former Head, Molluscan Fisheries Division, ICAR-CMFRI. The first sale of the value added oysters was to Mr. Rajesh Nair, Materials Manager, Hotel Grand Hyatt by Dr. P. Laxmilatha, Head, Molluscan Fisheries Division, ICAR-CMFRI. It is expected that the value addition initiative can increase the income of the bivalve farmers ◆

Sale of fish seed and ornamental fishes at Mandapam

Sale of Cobia, Silver Pompano fingerlings and Ornamental fishes is being regularly done for the benefit of fish farmers. During October to December 2020, a revenue of ₹ 2,53,000 was generated by the Mandapam Regional Centre through the sales activity. ICAR-CMFRI has pioneered technologies for seed production of several marine food finfishes as well as ornamental fishes leading to better marine fish seed supply lines and enhanced scope for income generating mariculture activities in the country.

Reported by R. Jayakumar, G. Tamilmani, M. Sakthivel, P. Rameshkumar, B. Johnson, K. K. Anikuttan & M. Sankar, & A. K. Abdul Nazar ◆

Sea cages at Thondi stocked with lobster and cobia seed

The two sea cages installed at Puthukudi village, Thondi for sea cage farming activities under Scheduled Caste Sub-Plan (SCSP) programme have been stocked with lobster and cobia seed. Shri. K. Muraleedharan, Member of Institute Management Committee ICAR-CMFRI, Dr. R. Jayakumar, and programme beneficiaries participated in the programme coordinated by Shri. M. Sankar and Dr. M. Sakthivel.

Reported by R. Jayakumar, M. Sankar, M. Sakthivel, B. Johnson, G. Tamilmani, P. Rameshkumar, & K. K. Anikuttan, Mandapam Regional Centre ◆

Online training programmes for fish farmers

Under the All India Network Project on Mariculture, sixty four farmers were trained online about mariculture technologies, by Karwar Regional Station of ICAR-CMFRI. The training conducted for farmers in three batches during 26-28 November, 3-5 December and 14-16 December 2020 through the online platform Google Meet, got excellent response from the participating farmers. Topics such as marine cage installation and farming practices, fish health management and Integrated Multitrophic Aquaculture (IMTA) were covered in the training programme with practical aspects of cage farming imparted through videos on the online platform.

Seaweed harvest benefits fisher groups

A total of, were undertaking seaweed farming of *Kappaphycus alvarezii* under the SCSP component at Puthukudi village, Thondi yielded around 5 tonnes of dry seaweed from 50.0 tonnes of wet weight harvested and marketed after drying. The 28 fishers belonging to 10 groups could earn an amount of Rs. 8000-10000 each from the farming venture.

Reported by R. Jayakumar, B. Johnson, G. Tamilmani, P. Rameshkumar, K. K. Anikuttan, M. Sakthivel & M. Sankar, Mandapam Regional Centre ◆

Fish Harvest under SCSP–2020

Fishermen beneficiaries from the Adi-Dravidar community belonging to the Annai Theresa Meenvallarpor Suya Udhavi Kuzhu (ATMSUK) at Kottaikkadu, Cheyyur taluk have benefitted from cage farming activities under the SCSP programme initiated in March 2020 by Madras Regional Station of ICAR-CMFRI. Sea bass seed of 12-15 cm sizes procured from nurseries in Nellore were stocked in the cages during late March 2020. The units were continuously monitored and maintained with frequent net maintenance and repairs and net exchanges. In spite of COVID -19 national lockdown and temporary restrictions sheer persistence of the members with a mix of field visits and online consultations sustained the activities and after the completion of 273 days since stocking a total of 1,020kg of sea bass worth ₹ Three lakhs Ninety-two thousand two hundred and forty could be harvested. The overall survival was 55% and nearly 73% of the fishes weighed more than one kilogram each while 2% were above 2kg sizes. The harvest was carried out on the 18th December 2020 in the presence of officials of the Department of Fisheries, local fishers and panchayath leaders ◆

Taking the sting out of Jellyfish

On the occasion of the "World Jellyfish Day" several outreach programmes were organised by the Mandapam and Mangalore Regional Centres of ICAR-CMFRI. Online programmes Jellyquiz, Jellyart and Jellyphoto were launched by Mandapam Regional Centre with public participation on 21 November and associates of the Jellyfish project from each maritime states co-ordinated this activity from their respective states. The Marine Biodiversity Division in the institute which developed 'Jelly safe' first aid kits for treating jellyfish stings useful for fishermen, beach tourists and marine researchers who are likely to encounter jellyfish stings during their work was promoted. Awareness campaigns and distribution of 'Jelly safe' first aid kits for lifeguards posted in several beaches in the district were organized by the Mangalore Research Centre at Coastal Police Stations in Mangalore, Hejmadi, Malpe, Gangoli, Bhatkal, and Honnavara. Incidents of jellyfish swarms in coastal waters and stinging incidents are generally higher during September to March and require attention of all concerned ◆

Lal Bahadur Shastri Award Workshop on experiment methodologies in Fisheries and Agriculture organised

An online workshop devoted to various aspects of response surface and mixture experiment methodologies with emphasis to enhance their application potential was held on December 16, 2020 in ICAR-CMFRI. Organised by Dr. Eldho Varghese of the Fishery Resources Assessment Division, it was a part of the prestigious Lal Bahadur Shastri Award conferred on him. Prof. Bikas K. Sinha, Former member, National Statistical Commission and Former professor (Statistics), Indian Statistical Institute chaired the workshop. Dr A Gopalakrishnan, Director, ICAR-CMFRI presided over the function. Eminent scientists like Dr. Rajender Prasad, Director, ICAR-IASRI, New Delhi, Dr. Manisha Pal, Professor (Statistics), University of Calcutta, Dr.Seema Jaggi, Professor (Agricultural Statistics), ICAR-IASRI, Dr. Nripes K. Mandal, Former Professor (Statistics), University of Calcutta, and Dr. Siuli Mukhopadhyay, Associate Professor (Statistics), IIT-B, Mumbai, interacted with the participants in the programme.

Outreach

Artificial reef project to restore marine ecosystems

A consultancy project "Artificial fish habitat based marine ecosystem restoration in the inshore areas off Bhadreswar, Kutch District, Gujarat" was initiated by the Veraval Regional Station. Visit to project site for monitoring of the reef modules' status and preparedness for deployment and installation process in the Gulf of Kutch and coordination and liaising with the Department of Fisheries, Gujarat was done. Globally artificial reefs are used by fishery managers as a means of promoting artisanal and recreational fisheries, restore marine ecosystems by creating high marine biodiversity zones and opportunities for ecotourism ◆

Capacity building in use of ICT tools

Under the internationally funded project 'Dialogues in Gender and Coastal Aquaculture - Gender and the Farming Value Chain Asian and African partners' a capacity building programme in the use of ICT tools and virtual dialogues was organized during November 9 - December 4, 2020 by the Vizhinjam Regional Centre. 550 seaweed farmers of Ramanathapuram district benefitted and a validation workshop involving all categories of stakeholders in the seaweed sector was held at Ramanthapuram from 11th to 14th December, 2020 ◆

Outreach

Seaweed farming option gets a fillip in Lakshadweep

A training on seaweed farming, as a livelihood option for womenfolk was organized on 12 -13 October 2020 at Agatti island, Lakshadweep UT. The programme jointly facilitated by ICAR-CMFRI, KVK (Lakshadweep) and the Department of Fisheries evoked excellent response from the stakeholders. Seaweeds are highly valued marine bio-resources yielding several commercially important products such as agar, alginates and carrageenan used in the food and pharmaceutical industries ◆

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effort of ICAR-CMFRI in developing the marine capture fisheries and mariculture of the country. Dignitaries present on the occasion included Shri Muttamsetti Srinivasa Rao, Hon'ble Minister for Tourism, Culture and Youth Affairs, Govt of Andhra Pradesh; Shri Vinay Chand, Collector and District Magistrate, Visakhapatnam, Dr. A. Gopalakrishnan, Director, ICAR-CMFRI and Shri K. Muraleedharan, member, Institute Management Committee of ICAR-CMFRI besides prominent local fish farmers. Farmed *Lutjanus johnii* commands attractive farmgate prices with consistent demand for fish seed from fish farmers. As it is on the prioritized list of mariculture species prepared by ICAR-CMFRI, Visakhapatnam Regional Centre concentrated on developing its captive broodstock. The fishes which matured were induced to spawn in the beginning of this year and since then continuous seed production became possible, giving impetus to mariculture finfish production ◆

Broodbank for Indian pompano established

The Broodbank for Indian pompano *Trachinotus mookalee*, has been successfully established at Vizhinjam. With forty brood fishes maintained in the Pompano Broodbank facility for breeding and seed production, Vizhinjam Regional Centre of ICAR-CMFRI stepped up its efforts to ensure a reliable supply chain for marine fish seed of commercial importance. The sub-adults of pompano, weighing 200- 400 g each were collected from different locations in Kerala and Tamil Nadu in 2018 for the National Brood bank facility of Silver pompano. These were maintained in the RAS at the centre and when they grew up, about 46 numbers were identified as Indian Pompano. These were segregated and reared separately in RAS. The brood fishes were fed with squids, mussels, brood-stock feed daily, and vitamin tablets three times weekly. After 2.5 years of proper feeding and maintenance, the brood fishes weighed about 2.5-4.3 kg and attained sexual maturity. In December 2020, brooders (1 female:2 male) were induced to spawn using Luteinizing hormone-releasing hormone (LHRH). It achieved successful spawning after 34 hours of inducement, with hatchlings recorded after 20 hours of spawning. Subsequently, several pairs spawned successfully spawned and egg production ranged from 280000 to 400000 per female during each spawning. The centre started distributing eggs of Indian pompano to the Kerala State fisheries department and private hatcheries on demand for rearing and distribution to the farmers. Indian pompano has a higher demand for farming compared to the Silver pompano (*Trachinotus blochii*) and is one of the promising species for mariculture in India due to its faster growth rate, good meat quality and appreciable market prices.

Reported by: S. Surya, Ambarish P. Gop, P. Gomathi, B. Raju, P. Praveen & M. K. Anil, Vizhinjam Regional Centre ◆

Trachinotus mookalee brooder for hormonal inducement

Eggs ready for transportation

Seed of *T. mookalee*

Webinar on impacts of an invasive mussel in Kerala

Molluscan Fisheries Division of ICAR-CMFRI hosted a Webinar 'The invasive mussel *Mytella strigata*: Impacts on fisheries and farming' on 13, October 2020 for creating awareness among the stakeholders regarding the invasive mussel and its impacts on the fisheries as well as farming activities.The stakeholders who participated through video conferencing included the mussel / clam / oyster pickers, fish farmers, crab farmers, Farmers' Association Leaders, Kerala State fisheries department officials of Kerala, Karnataka and Goa and several scientists. Since early detection and rapid response are critical for preventing the establishment of non-native species that may cause ecological and economic havoc, several important recommendations were made for the attention of fishery managers, farmers and other stakeholders ◆

International online training programme for AARDO member countries organised

ICAR-CMFRI organized an online workshop cum training programme on "Fisheries and Aquaculture" during 28th October to 6th November, 2020 for the African-Asian Rural Development Organisation (AARDO). Participants from various AARDO Member Countries were present.

Sea ranching of Green tiger shrimp in Palk Bay

Sea ranching of hatchery produced green tiger shrimp, *Penaeus semisulcatus* seeds in the sea grass beds of Gulf of Mannar and Palk Bay aimed at maintaining a sustainable shrimp stock in the wild and also improve the livelihood of the local fishermen is being done by the Mandapam Regional Centre. During 2017-2020, a total of 8.745 million numbers *P. semisulcatus* shrimp seeds of PL 10-35 size were released in this region. Shrimp seeds of PL-10-30 were sea ranched at Munaikadu, Thangachimadam and Pirappan valasai in the sea grass bed areas of Palk Bay, Ramanathapuram District on 8th October, 7th November and 20th November respectively. Shri. K. Muraleedharan, Member of Institute Management Committee of ICAR-CMFRI, Dr. R. Jayakumar, Fishermen leaders and local fishermen participated in the programmes coordinated by Shri M. Sankar, and Dr. B. Johnson.

Reported by R. Jayakumar, M. Sankar, G. Tamilmani, M. Sakthivel, P. Rameshkumar, B. Johnson & K. K. Anikuttan, Mandapam Regional Centre ◆

Official Language Implementation

Swachh Bharath Pakhwada was observed during 16 – 31 December 2020. An online Hindi elocution competition was conducted with the topic Swachh Bharath - Swasth Bharath on 21 December 2020. Staff members from Headquarters and Regional Research Stations participated in the programme conducted on the WEBEX platform.

Online Hindi Workshop on 'Official Hindi and Spoken Hindi' was conducted for staff members of Headquarters and Regional

Stranded Indo-pacific bottlenose dolphin rescued

An Indo-pacific bottlenose dolphin, *Tursiops aduncus* (Ehrenberg, 1833) stranded alive on Tambaldeg beach, Devgad taluk in Sindhudurg district of Maharashtra in the month of October 2020. Local fishers immediately responded and released the dolphin back into the sea. Stranded dolphins are generally under stress and may return towards beach and the released dolphin was observed until it reaches deeper waters by the rescue team. The dolphin was about 120 cm in length and about 35 kg weight. ICAR-CMFRI had implemented a capacity building project on development of protocols for stranded cetaceans to stakeholders, local fishermen communities and government officials of the Forest, Customs, Port, Fisheries Department and Veterinarians of Sindhudurg district, funded by GOI-UNDP-GEF in the year 2014. This programme has immensely helped fishermen in marine mammal rescue operations, considering their importance as Endangered, Threatened and Protected (ETP) species globally.

Reported by: S. Ramkumar, D. M. Vaibhav, R. Jeyabaskaran, M. Sakthivel and A. K. Punam ◆

Constitution day observed

The Constitution Day was observed on 26th November, 2020. Staff of the institute participated in the reading of the Preamble of the Indian Constitution conducted through Government of India online portal.

Swachhta Pakhwada observed

The *swachhta pakwada* 2020 was observed in the institute with active participation of the staff in all centres, following the taking of the pledge for cleanliness. Cleaning the premises of the institute, beaches and public spaces, planting of trees and other such activities were done.

Distinguished visitors

Air Vice-Marshal Shri. Amit Tyagi, Training Command, Indian Air Force, Bangaluru visited Mandapam Regional Centre on 17th December, 2020.

Former Union HRD Minister of state Shri. Sanjay Paswan visited Mandapam Regional Centre on 25th December, 2020.

Personnel

Programme participation

Dr. A. Gopalakrishnan, Director attended NABARD Chair Meeting on Action taken plan for the period 2019-2020 and work plan for 2020-2021 via webinar with NABARD Chair Professor, Dr. W. S. Lakra on 08.10.2020

Attended NFDB Review meeting held on 10.11.2020

Attended online meeting convened by Dr Gopal Krishna, Director & Vice Chancellor, ICAR-CIFE, Mumbai regarding curb on unsustainable marine fish capture practices and sustainable fisheries in Maharashtra on 1.12.2020.

Attended Inter-ministerial meeting Hosted by Department of Commerce regarding Marine Mammal Protection Act of USA and stock assessment compliance on 14.12.2020

Attended Director's Conference held under the Chairmanship of Dr. J. K. Jena, Deputy Director General (Fisheries), ICAR, via video conference on 16.12.2020

Dr. Prathibha Rohit attended Review Meeting of NFDB Projects, Nov 10, 2020

Attended District level meeting held on 12 November, 2020 of the Committee constituted for implementation of PMMSY (Fisheries) in Dakshina Kannada District.

Attended District Level Advisory Committee of FFMA, 1 December 2020

Dr. R. Jayakumar, participated in the session on 'Offshore mariculture submersible cage, feeding, mooring system and environmental health monitoring and management' at the VAIBHAV Summit 2020 coordinated by National Institute of Ocean Technology on 7th October 2020.

Dr. B. Johnson, participated in the first Meeting of Technical Advisory Committee for Promotion and Development of Seaweed Farming and Value Chain organized by Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying on 23 October 2020.

Dr. R. Jayakumar & Dr. B. Johnson, participated in discussions on the "Proposed Mission on Seaweeds' organized by TIFAC, DST, on 18 December, 2020.

Dr. Jayasree Loka and **Mr. Narayan G. Vaidya** attended a meeting of to discuss about the implementation of Pradhan Mantri Matsya Sampada Yojana (PMMSY) along with other line departments at the Office of the District Commissioner, Uttara Kannada district, Karwar on 13.11.2020

Dr. Loveson Edward attended the online course on "The use of Geographic information systems (GIS) in the establishment of allocated zones for aquaculture (AZA)" during 23.11.2020 to 02.12.2020 conducted by the United Nations Food and Agriculture Organisation (FAO).

Dr. Praveen Dube attended an expert committee meeting conducted by Department of Fisheries, Goa for the site selection for the mariculture activities for Goa at Panjim on 23.11.2020

Dr. P. S. Swathi lekshmi participated in the review meeting of the International SWEDBIO and AFS funded project on 'Dialogues in Gender and Coastal Aquaculture - Gender and the Seaweed Farming Value Chain Asian and African partners' on 16-12-2020 convened by the DDG (Fisheries),ICAR and Dr.Meryl J. Williams, Chairperson, AFS.

Awards & recognition

Dr. Prathibha Rohit was nominated to attend the IOTC 17th Compliance Committee meeting (17 CoC), Seychelles, IOTC, 1-2 October 2020. She also attended the IOTC Working Party on Tropical Tunas (WPTT22) 19-23 October, 2020; IOTC 24th Session meeting 2-6 November, 2020; IOTC WPDCD16 (Working Party on Data collection and documentation) during 30 November -3rd December, 2020 and the IOTC 23rd session of Scientific Committee, 7-11 December, 2020 as nominee of the Ministry of Fisheries, Animal Husbandry & Dairying, Govt. of India.

Dr. Eldho Varghese was elected as Joint Secretary, Indian Society of Agricultural Statistics (ISAS), New Delhi for the tenure 2020-2023.

Dr. R. Narayanakumar was nominated as Member of the Technical Evaluation and Scrutiny Committee of the Tamil Nadu State Fisheries Department, Chennai

Dr. Dineshbabu, A. P. joined the Assessment Panel of Experts (APE) along with Deputy Director, Export Inspection Agency (EIA) and Deputy Director, Marine Products Export Development Authority (MPEDA), in order to determine the cause of detection of IHHNV in F&FP consignment exported to P.R. China arranged by EIA, Mangaluru.

Retirements

Dr. I. Jagadis

Principal Scientist
30.11.2020
Tuticorin Regional Station

Shri A. Bose

Skilled Support Staff
30.11.2020
Mandapam Regional Centre

Promotions

Name & Designation	Promoted as	w.e.f
Shri Oggu China Venkateswarlu Skilled Support Staff	Technician	21.08.2020
Shri D. Lingaraju Skilled Support Staff	Technician	21.08.2020
Smt. Usha P. K. Skilled Support Staff	Technician	21.08.2020 (AN)
Smt. A. Usha Rani Skilled Support Staff	Technician	21.08.2020 (AN)
Shri K. Narayanan Skilled Support Staff	Technician	24.08.2020
Smt. R. Eswari Skilled Support Staff	Technician	19.11.2020 (AN)
Rajesh P. A. Skilled Support Staff	Technician	21.11.2020
Shri C. S. Santhana Kumar Skilled Support Staff	Technician	21.11.2020 (AN)

Inter-Institutional Transfer

Name & Designation	From	To	w.e.f.
Smt. N. R. Danutha, Technical Officer	ICAR-Directorate of Poultry Research, Hyderabad	ICAR-CMFRI, Kochi	02.11.2020

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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