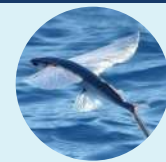




# *Flying Fish*

Beyond horizon...



## Message from

### SHRI KOTA SHRINIVAS POOJARI

Hon'ble Minister of  
Fisheries, Ports and  
Inland Transport



It is a privilege and honour that College of Fisheries is completing its 50 years since its establishment during 1969 in Mangaluru by the Government of Karnataka. The college is performing well in providing required assistance to the upliftment of fishing communities not only in Karnataka but also the entire country. Being the first college in south-east Asia, many of the State Governments in the country have established College of Fisheries in their respective states on the lines of academic structures of College of Fisheries, Mangaluru.

Today, fisheries are one of the important sectors in the country which provides employment opportunity to the people contributing significantly to the national economy and nutritional security. However, the fisheries sector is facing serious adverse issues that are harming the fish stock. The pollution, large scale habitat destruction, impacts of climate change including unsustainable fisheries is affecting not only the fish but also the fishing communities.

With the present lockdown on account of COVID-19 Pandemic, the fisheries sector has been adversely affected. The marine fisheries have almost stopped except for traditional fishing. The aquaculture and fisheries in freshwater areas have also been seriously affected. There is no marketing facility for the harvested fish and hence the fisher-folk are highly distressed. At this point in time, the Government of India has come forward to boost

## IN THIS ISSUE

This issue highlights the activities, programmes and events undertaken by staff and students of the College of Fisheries, Mangaluru during the period January to June\* 2020.

1. The March edition could not be brought out due to the lockdown

## CONTENTS

|                                     |   |
|-------------------------------------|---|
| Health, Environment and Fisheries 2 |   |
| Activities                          | 3 |
| Fisheries Research/Publications     | 4 |
| Staff and Student's News            | 4 |
| Fish facts                          | 4 |



Dr. S.K. Girisha and Mr. Nithin M.S. working at Wenlock hospital laboratory for Covid-19 testing  
More details on Page 3



Deserted fishing port in Mangaluru  
More details on Page 3

the fisheries sector. The Government of Karnataka is extremely grateful to the Hon'ble Prime Minister Shri Narendra Modi for launching the 'Prime Minister Matsya Sampada Yojana'. This initiative of the Government of India will help the fishing communities to explore alternative livelihood and also promote fisheries in the state. The Karnataka state has huge potential to become one of the leading states in fisheries.

Professors of College of Fisheries, Mangaluru have been extending technical support to the traditional fish farmers during the lockdown. Further, the college will play a vital role in developing the fisheries sector in Karnataka by assisting the Government of Karnataka to implement 'Prime Minister Matsya Sampada Yojana'.

I wish all the fishing communities and the employees of the College of Fisheries to adopt all safety standards and be safe. I am sure, the 'Flying Fish'-the quarterly published magazine (Vol. 2, Issue 1) of the college will provide the latest information on the development of fisheries in the state coinciding with the impact of COVID-19 on fisheries. I congratulate and compliment the scientific communities of the college specially the Professors for their tired less services in this endeavour.



Date: 26 May 2020  
Place: Mangaluru

*Kota Shrinivas Poojari*

## Health, Environment and Fisheries

### Progressive fish farmer visit to the college on 27 January 2020

Mr. Shivanna from Mandya visited the CoFM and shared his experiences with the B.F.Sc students. He motivated the students to take up Aquaculture as an entrepreneurial activity. He also emphasized that an entrepreneur with just 2 acres of land could earn more than 6.0 lakh per annum which is equivalent to income generated by growing paddy in 30 acres of land



### Lecture on “Shoreline Management Plan” on 13 January 2020



A lecture on “Shoreline Management Plan” was organised in the College Auditorium as a part of the Golden Jubilee lecture series. Dr. N. P. Kurian, Former Director, National Centre for Earth Science Studies, Trivandrum was the key speaker. Dr. N. P. Kurian is presently a consultant in the Sustainable Coastal Protection and Management Investment Programme. The staff and students benefited from the program.



### CoFM visits NITK, Surathkal to discuss the modernization of Aquaculture ponds at college's farm site on 7 February 2020



A team from CoFM visited National Institute of Technology Karnataka Surathkal, to discuss the Modernization of Research and Instructional Fish Farm with new Aquaculture technologies to be set up at CoFM.

Professor & Head Dr. Amba Shetty, Dr. Pruthviraj and Mr. Ramesh of the Civil department of NITK, Surathkal drafted a tentative outline of the project plan including all the possible components essential to build a research and instructional fish farm at CoFM. A MoU between NITK and KVAFSU will be signed shortly.

### Release of Golden Jubilee Symposium Brochure by Hon'ble Vice Chancellor on 2 March 2020

A symposium to commemorate the Golden Jubilee Celebration of CoFM is scheduled for March 14-16, 2020 at College of Fisheries, Mangalore. The symposium theme on “Addressing fishing community concerns in Integrated Coastal Zone Management:: an emerging challenge” is sponsored mainly by the World Bank through MoEF, Government of India. The event brochure mentioning the speakers, topics, participants sponsors etc. has been brought out and was released by the Hon'ble Vice Chancellor, KVAFSU at a meeting held at CoFM Mangalore. However the celebration was put on hold due to the lockdown in post due to COVID 19 by the Government of Karnataka.



### Goa Fisheries Minister visits CoFM on 5 March 2020



Dr. Filipe Nery Rodrigues- Fisheries Minister, Goa visited CoFM and had an informal meeting with Dean, Dr A Senthil Vel and other Professors of the college. Discussions were held on identifying illegal fishing in sea, strengthening of patrolling by the coastal police at sea, issue of sea erosions, Aquaculture development and various technology driven plans to rejuvenate aquatic resources. The minister expressed his wish for a long relationship with CoFM. For further information. Read more <http://bit.ly/2W03RIh>

### Scientists from College of Fisheries involved in COVID-19 testing at Government Wenlock Hospital, Mangalore (The Hindu - 23 April 2020)



Dr. S. K. Girisha



Mr. Nithin M. S.  
(From Page-1)

In view of the increasing SARS coronavirus 2 (COVID-19) cases across the country, the Indian Council of Medical Research (ICMR) and the National Institute of Virology (NIV), has approved the setting up of a new virology laboratory for testing of COVID-19 at the Government Wenlock Hospital. The Team headed by senior specialist Dr.Sharath Kumar and expert scientists from NITK Surathkal, Fisheries College Mangalore and Mangalore University have been instrumental in setting up this virology laboratory. Dr. Girisha S.K. Assistant Professor and Mr. Nithin, Ph.D scholar, from the Department of AAHM, CoFM were the experts involved in setting up of the RT-PCR system in this new lab and have since been actively engaged in testing of COVID-19 samples. Dr Girish S.K and Mr.Nithin M.S have been working tirelessly round the clock at the Wenlock hospital laboratory and uptil now the team has analysed around 6000 samples. Their dedication and service to the public is highly appreciated and needs to be commended Read more: <https://bit.ly/2W6VI2a>



### MOU Signed between CoFM, KVAFSU, Bidar & Mangaluru Smart City Ltd. (MSCL) on 13 May 2020



The CoFM on behalf of KVAFSU, Bidar entered into a MoU with MSCL for establishment of “Skill Development Programmes in Fisheries under Area Based Development (ABD) Mission of Mangaluru Smart City Limited (MSCL)” with an outlay of Rs. 4.9 Crore by the MSCL under the Ministry of Urban Development, Govt. of India. The infrastructure will be established at the Technology Wing, Hoige Bazar campus of CoFM.

### Short term consultancy awarded to CoFM by World Bank to CoFM

CoFM has been awarded a short term consultancy of Rs. 40 Lakh titled “Rapid Assessment of the Blue Economy Potential in Karnataka” from the World Bank. This short term consultancy for 90 days has been approved by the Government of Karnataka which aims for a full-fledged analysis of the blue economy potential of Karnataka.

## Renovation and refurbishment of infrastructure at CoFM

On the occasion of Golden Jubilee Celebration preparedness certain infrastructure developmental activities have been carried out at the College with the financial assistance obtained from the KVAFSU, MoEF & CC-SICOM.



## Projects and other infrastructure bagged by CoFM during 2019-2020

1. Community based livelihood improvement programme for fisherfolk and other agricultural communities along coastal districts of Karnataka funded by MoEF & CC, Gol. (Budget: Rs. 20.0 Crore)
2. Modernization of infrastructure for post-harvest technology funded by MoEF & CC, Gol. (Budget: Rs. 16.0 Crore)
3. Development and Modernization of the Aquaculture farm in 22 acres funded by RKVY - ICAR, Gol. (Budget: Rs. 7.9 Crore)
4. Establishment of skill development and safety centre under Mangaluru Smart City Ltd., Ministry of Urban Development, Gol. (Budget: Rs. 4.9 Crore)
5. Aquamarine" - Advanced Center for Aquatic Biotechnology by Dept. of ITBT, Govt. of Karnataka (Budget: Rs. 5.0 Crore)
6. Construction of Canara Bank within the college premises
7. Potential for 'Blue Revolution in Karnataka' consultancy project of Rs. 40 Lakh awarded to CoFM by World Bank

## Activities

### Impact of COVID-19 pandemic on fisheries sector

The fisheries sector which includes fisheries in the seas and also the Aquaculture has been seriously affected on account of the lockdown imposed by the Government. The data is not enough at this moment to understand the impacts with acceptable degree of confidence. To understand the implication deeper examination of the issues and the expected impacts are necessary. It would be appropriate to understand the issues based on each of the fisheries sectors such as production of fish and shellfish by Aquaculture, marine fisheries, feed production units, post harvest technologies and thereafter marketing. The socio-economic issues relating to each of these sectors needs to be studied carefully. In this regard, the College of Fisheries has undertaken preliminary analysis of some of these areas of concern and noted that

- The small scale traditional fish workers who operate along the coastal areas, estuaries, riverine stretches, reservoirs, irrigation tanks, lakes and ponds have been the most affected. On account of lockdown these fishing communities have been unable to carry out fishing/marketing of their produce.
- With regard to Aquaculture due to lack of availability of manpower, raw materials such as feed, manure, chemicals etc. have affected the Aquaculture sector. Several labours working in these farms have been rendered unemployed. The most adversely affected sector are the shrimp farms where the initial investment is high and thereafter these farms are unable to harvest the grown up shrimps as there is no export market for shrimps.
- Due to non-availability of fish, the fish processing units are kept idle or working below capacity. Hence, the large number of manual labour specially women communities employed in these finfish processing units are presently all unemployed.
- Fisheries sectors which are directly connected to the fisheries and other allied activities such as ice plants, boat repair units, workshops, net mending units, net manufactures, fish product preparations such as dry fish, pickles, smoke fish have been seriously affected. Large numbers of fishing communities, especially the women communities employed in these traditional activities have been greatly affected as several of them depend on these activities for their livelihood.
- Globally there has been a slowdown which has directly affected the sea food exports particularly due to complete shutdown in the major export markets such as the USA, EU, South East Asian countries including China. In the coming months the fisheries sector might witness a cascading effect on the fisheries and Aquaculture chain. If the situation persists it is anticipated that sectoral losses may be of several thousand crore and more importantly loss of employment and livelihood specially of the poor and traditional fish farmers.

The possible interventions for overcoming the above adverse impact could be the following;

- Financial assistance to the identified marginal and traditional fish farmers / fishermen. A minimum support for sustenance living need to be provided to these communities by the local Government. Parallely alternative livelihood measures by incorporating appropriate skill development to be undertaken by various agencies including Government and NGO's.
- Loan and reduced EMI / interest free financial assistance as one time incentive may be extended to the fishing community to undertake alternative livelihood activities.
- Creation of market for the produce / products developed by the fisherfolk communities as a part of their livelihood measures.
- The agencies involved in feed production, fish processing etc. have to explore various other avenues or areas for improvising and exploring other markets for marketing their products as export markets could not pick up for another six months. A strong cold chain for transporting the local produce to the urban centres and other domestic markets would provide adequate incentive for the fisheries sector till the pandemic is over.
- Declare Aquaculture in par with agriculture for the purpose of priority sector lending, crop insurance, power tariff and water tariff and other levies in Aquaculture farms. Extend subsidy for all raw material and machineries involved in Aquaculture.
- Extend grace period to an appropriate time period for repayment of the current loans taken by fisherman and Aquaculture farmers.
- Provide interest free short term loans to agriculture banks such as NABARD, Rural banks including the State and Central Fisheries Department.
- Extend insurance for all fisher folk and Aquaculture farmers.
- Exempt duties and levies on diesel, kerosene for fisherman boats.
- The other public amenities for the fishing communities are extremely poor and inadequate. The fishing harbors and ports where several thousands of fish workers are present, lacks basic amenities such as clean drinking water, public toilet, bathing place, resting place. Such lack of amenities and infrastructure may enhance the epidemic at a later stage. Hence the concerned Governments need to address these issues during the lockdown period.



## Fisheries Research/Publications

1. Srinivasa K.H., et.al. Polyclonal antibody-based farmer-friendly flow-through test for the detection of acute hepatopancreatic necrosis disease in shrimp. *Aquaculture Research*, <https://doi.org/10.1111/are.14625>
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3. Shamima N., et.al. 2020. Use of DNA Barcoding in the Investigation of Disputable Meristic Features for *Hypselobarbus Jerdoni* (Day, 1870) fingerlings. *Journal of Experimental Zoology India*.
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5. Praveen J.H.S., et.al. Primary productivity and phytoplankton diversity in Pilikula Lake, Dakshina Kannada dist, Karnataka, India. *Journal of Entomology and Zoology Studies*, 7(2): 133-139
6. Rajesh D.P., et.al. 2020. Length - weight relationship and relative condition factor of *Atropus atropus* (Bloch & Schneider, 1801) from Mangalore coast, India. *J. Exp. Zool. India*. 23 (1): 289-293.
6. Suman D., et.al. 2020. Determination of Proximate composition of crab, *Charybdis lucifera* of Mangalore coast, Karnataka, India. *J. Exp. Zool. India*. 23 (1). 469-470.
7. Suman D., et.al. 2020. Length - weight relationship and relative condition factor of *Saurida tumbil* from Mangalore coast, India. *Journal of Fisheries Research Elsevier*. 23 (1): 675 - 678.

## Acknowledgements

CoFM thanks MoEF-CC, World Bank and SICOM New Delhi for providing a grant of Rs. 50 Lakh towards the Golden Jubilee (GJ) Celebrations and also heartfelt gratitude to M/S Adani Group for providing blazers to all students with CoFM logo.



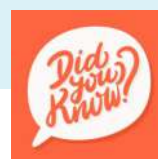
## Fish Facts - Electric eel



|                 |                                   |         |                     |
|-----------------|-----------------------------------|---------|---------------------|
| Scientific name | : <b>Electrophorus electricus</b> | Phylum  | : <b>Chordata</b>   |
| Class           | : <b>Actinopterygii</b>           | Family  | : <b>Gymnotidae</b> |
|                 |                                   | Kingdom | : <b>Animalia</b>   |

- They are one of the 500 types of fish that are capable of producing electricity
- Found mainly inhabiting the Amazon and Orinoco rivers of South America
- They can reach 8 feet in length and 44 pounds in weight
- They live in shallow, muddy water and come to the surface every 10 minutes to breathe in atmospheric air
- Being carnivores they feed on other fish, amphibians, birds and small mammals
- Each of them have around 6000 cells called 'electrocytes' that produce electricity equivalent to 600 volts power and is used to defend against predators

➤ An eel of 20 feet long can produce enough electricity to light 12 light bulbs and can knock down a horse



## Staff and Student News



### Welcome:

CoFM congratulates Captain P. Manivannan, IAS for being taken over as the Secretary to the Government in the Department of Animal Husbandry & Fisheries. The CoFM and the fisheries in the state will certainly be benefited under his leadership. CoFM wishes him all the best!

### Achievements:

Awarded lifetime National Academy of Agricultural Sciences (NAAS) Award 2019-2020 to **Dr. Kalkuli M. Shankar**, Former Dean (Fisheries), CoFM & ICAR Emeritus Scientist, Veterinary College, Shimoga, Karnataka



### Superannuation:

CoFM wishes him a happy retired life

### Shri. Rajendra

Senior Janitor(Gr-1) CoFM  
on 31.1.2020

**Obituary:** CoFM deeply mourns the sad demise. We pray that God Almighty give courage to the bereaved family to bear the loss with fortitude.

**Shri. Srinivas Murthy** Alumni CoFM,  
B.F.Sc 1982-1985 Expired on: 01.05.2020



## Dean's Desk



All arrangements were made to hold the Golden Jubilee Celebrations on March 16-18, 2020 but due to COVID-19 lockdown directions by the Government the event has been indefinitely postponed. It was a setback as students, staff and several participants were eagerly waiting for the event. However the College staff were not disheartened they continued to work even during lockdown period. In this process the college was able to bag an important World Bank assisted short contract to prepare a report on Blue Economy Potential in Karnataka. Further skill development center under Smart City Ltd. was also initiated. I am sure with this enthusiasm of the staff and consistent support from the Fisheries Department, GoK the College will be able to excel in research & academics and also will play a key role in the development and promotion of the fisheries in Karnataka. I also wish to congratulate Capt. P. Manivannan IAS, who has taken over as the secretary, animal husbandry and Fisheries Department. I am sure under his able leadership the Fisheries sector will be greatly benefitted.

I will be extremely happy to receive comments and suggestions at the below given feedback email.

We're on the Web! [www.cofm.edu.in](http://www.cofm.edu.in)  
Suggestions and feedback to  
[newsletter@cofm.edu.in](mailto:newsletter@cofm.edu.in)

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