



**Yashaswi**  
Marine Ingredients

# National Workshop on **Exploring Possibilities for the Sustainable Harvest and Utilization of Mesopelagic Fishes of the Indian EEZ**

**Venue: The Ocean Pearl, Mangaluru, Karnataka**  
**Friday, 24 May 2024, Time 10.00 am**

## *About the Workshop*

- The ICAR-Central Marine Fisheries Research Institute (CMFRI) is a premier research institute under the Indian Council of Agricultural Research (ICAR), dedicated to marine fisheries research and development. Established in 1947, CMFRI plays a pivotal role in advancing scientific knowledge, sustainable management, and utilization of marine resources in India.
- The institute conducts research on various aspects of marine biology, aquaculture, oceanography, and marine ecosystem conservation, contributing significantly to the enhancement of fisheries and aquaculture sectors.  
CMFRI's research outcomes and expertise are instrumental in shaping policies and practices for the responsible utilization and conservation of India's rich marine biodiversity in the Indian EEZ.
- The oceanic mesopelagic zone occurs 200-1000 m below sea level, and is home to several small fishes that play key roles in the ecosystem dynamics. These are globally the most abundant vertebrates; their communities are often dominated in terms of number and biomass by Myctophids, commonly referred to as lanternfish, (Order: Myctophiformes; Family: Myctophidae).
- Myctophids are named for their bioluminescent abilities, which they use for communication, camouflage, and attracting prey. Typically small in size, they range from a few centimeters to around 30 centimeters in length. They often form large aggregations of mesopelagic fish layers in the mesopelagic zone of oceans worldwide.
- Mesopelagic resources play a crucial role in the marine food web, serving as prey for larger fish, squids, and marine mammals.
- The presence of wax esters in their livers render them unfit for human consumption. However, they are high in lipid and protein content and may possibly find use in the fish meal industry, if harvested.
- Harvesting of mesopelagic fishes, including myctophids and their sustainable utilization present opportunities for new food sources and economic development, particularly in the context of increasing global demand for marine protein. The Potential Yield Estimate of both conventional and non-conventional marine fishes in the Indian EEZ is 7.1 MMT/year which includes 1.6 MMT of mesopelagic resources, indicating the vast possibilities of harvesting them.
- A one-day **National Workshop on Exploring Possibilities for the Sustainable Harvest and Utilization of Mesopelagic Fishes of the Indian EEZ** will be conducted by ICAR-CMFRI, Mangalore Regional Centre at Ocean Pearl, Mangaluru. The workshop is scheduled to be held on 24 May 2024 and will seek to create an awareness of the possibility of exploiting these resources sustainably for the fishmeal industry and the use of the waxy ester derived from them in the cosmetic industry.

## Objectives of the Workshop

The workshop will serve as a platform to bring together Government officials, researchers, and representatives from fish meal industry and seafood export industry to discuss possibilities to achieve the following objectives

- Estimate the accurate Potential Yield Estimate of mesopelagic fishes in the Indian EEZ.
- Identify and map aggregation sites of mesopelagic fishes in the Indian EEZ.
- Develop suitable harvest methods and assess economics of fishing operations.
- Develop suitable post-harvest processing protocols, explore potential use of mesopelagic fishes in fish meal industry and assess economics of these operations.
- Assess the utilization potential of by-products from the mesopelagic resources.

## Who will participate

The workshop aims to benefit fishers, owners and operators of fishmeal plants, processing units and feed mill plants. Officials from ICAR-CIFT; Department of Fisheries, Govt of India; Karnataka Department of Fisheries; MPEDA; CMLRE; representatives from SEAI and Yashaswi Fish Meal & Oil Company will also participate.

### Patrons:

Dr A Gopalakrishnan, Director, ICAR-CMFRI, Kochi  
Mr Udaya Kumar Salian, Yashaswi Fish Meal & Oil Company, Udupi

### Organising Secretary:

Dr Shoba Joe Kizhakudan, Head, Finfish Fisheries Division, ICAR-CMFRI

### Joint Organising Secretary:

Dr E M Abdussamad, Finfish Fisheries Division, ICAR-CMFRI

### Coordinators:

Dr Sujitha Thomas & Dr Rajesh K M, Mangalore RC of ICAR-CMFRI

### Co-coordinators:

Dr Sunil Kumar Ail, Dr Bindu Sulochanan &  
Dr Divya Viswambharan, Mangalore RC of ICAR-CMFRI

### Hosted by:

ICAR-CMFRI, Mangalore Regional Centre  
*in collaboration with*  
Yashaswi Fish Meal & Oil Company



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