

Order (payable to Director, CMFRI, at the SBI Ernakulam Branch, Kochi), should be sent to Dr. Rekha J. Nair, Course Director, ICAR Short Course, Marine Biodiversity and Environment Management Division, ICAR-Central Marine Fisheries Research Institute, Post Box No. 1603, Ernakulam North P.O., Kochi - 682 018, Kerala, India. The DD/PO should remain valid for six months, until August 2025.

To avoid postal delays, participants may send an advance copy (scan) of the application to the Course Director at [fishtaxonomy2025@gmail.com](mailto:fishtaxonomy2025@gmail.com). However, final selection will only be considered once the approved original copy is received. Detailed guidelines for participating in ICAR Short course can be downloaded from the CBP portal. The total number of participants for the course will be 25.

## DATES TO REMEMBER

**Last date for receipt of applications : 22 January 2025**  
**Intimation to selected candidates : 24 January 2025**  
**Confirmation of participation : 27 January 2025**

## BOARDING AND LODGING

Boarding and lodging will be provided to participants free of charge, in accordance with the approved ICAR norms for short-term training courses. Please note that accommodation will not be available for family members or guests of the participants.

## TRAVEL

Participants will be reimbursed travel expenses to and from CMFRI, Kochi, via the shortest route from their respective institutions. The reimbursement will cover AC II/III class train fare or bus fare, depending on the mode of transport used. Travel expenses will be paid upon submission of the original travel tickets.

## FOR MORE INFORMATION CONTACT

Course Director:

**Dr. Rekha J. Nair**  
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**Dr. Grinson George**  
Director

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Co Course Directors:

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## Application Form for Short Course on Integrated Taxonomic Techniques for Marine Biodiversity Conservation (18-28 February 2025)

### Application Form

Full name (in Block letters):.....  
Designation:.....  
Present employer & Address:.....  
.....  
.....

Basic Pay:.....  
Address for communication.....  
.....  
.....

E-mail Address:.....  
Mobile No: ..... Date of Birth:.....  
Sex (Male/Female):.....

Teaching/ Research/ Professional experience  
(Mention posts held during last 5 years and number of publications):  
.....

Mention if you have participated in any Training Programme, Seminar/ Summer/Winter School, Short Course, etc. during the previous years under ICAR/ Other organizations:  
.....

Demand Draft drawn in favour of ICAR Unit-CMFRI  
(No.: .....Dated:.....)  
For Rs. 50/- (Non Refundable) as registration fee, Payable at Ernakulam

Examination passed	Subjects main/ Subsidiary	Year	Division	University/ Institution
Degree				
Post Graduate				
Doctoral				
Others				

Date: ..... (Signature of the Applicant)  
Place: .....

Countersigned  
Sponsoring Authority (Director/ Dean/ Head of Regional Station, etc.)

## ICAR Sponsored Short Course on

# Integrated Taxonomic Techniques for Marine Biodiversity Conservation

**18 - 28 February 2025**



Sponsored By  
INDIAN COUNCIL OF AGRICULTURAL RESEARCH  
New Delhi



**ICAR-Central Marine Fisheries Research Institute**

Post Box No. 1603, Ernakulam North P.O., Kochi-682 018  
Kerala, India





## BACKGROUND

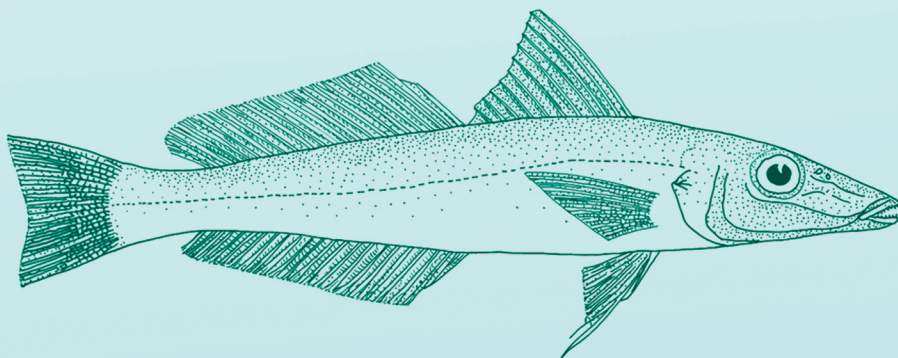
Fisheries provide crucial resources for millions of people worldwide, contributing significantly to both economic growth and global nutrition. However, fish stocks have significantly declined as a result of overexploitation and unsustainable fishing methods, underscoring the urgent need for improved management. The long-term supply of these resources depends on preserving marine habitats and encouraging sustainable behaviours. Ocean biodiversity is essential to the wellbeing of populations that rely on the water as well as the health of marine life. We can ensure a healthier planet and a more resilient future for everybody if we protect marine biodiversity.

## WHY IS TAXONOMY SO IMPORTANT?

Taxonomy has become crucial for identifying species while comprehending the complex interactions that occur within ecosystems as a result of the growing dangers that human activity poses to these habitats. Scientists can accurately identify creatures and communicate biological information thanks to this discipline, which supports research centred on the conservation of marine life. Taxonomy improves our comprehension of the vast diversity of organisms on Earth by organising life using a hierarchical classification system. Nevertheless, the rate of species discovery has not significantly increased in recent decades, which presents difficulties for conservation efforts despite the continuous biodiversity problem. Many species may become extinct before they are recognised, consequently we cannot determine how much biodiversity there is in the world. This challenge is referred to as a "taxonomic impediment" by the Convention on Biological Diversity. Investigating and identifying new fishing resources is crucial given the goals of SDG14, which is to protect marine and coastal ecosystems. Since conventional taxonomy serves as the basis for conservation regulations and frameworks created by organisations like the IUCN, WLP, and CITES, accurate identification is essential to sustainable fisheries management. Thus, taxonomy training is essential for both increasing the diversity of Indian fisheries and preserving biodiversity.

## OBJECTIVES

- ◆ To sensitize entry and middle level National Agricultural Research System (NARS) professionals about the concept of taxonomy and its use in fisheries development.
- ◆ To enhance the competency of NARS professionals in utilizing various tools and techniques of taxonomy, its applications and its importance in the UN Decade of the Oceans.
- ◆ To impart appropriate skills for the use of taxonomy, using different softwares.



## MAIN THEMES

- ◆ Marine Fisheries Resources of India
- ◆ Finfish / Shellfish/ Seaweeds/ Sea cucumber/ Jellyfish
- ◆ Fish otolith -theory –implications
- ◆ Taxonomy of all major fish groups
- ◆ Coral reef fish taxonomy
- ◆ Mammal taxonomy
- ◆ Analytical methods using softwares
- ◆ International tools in conservation
- ◆ Diversity analysis using different softwares
- ◆ Recent molecular techniques
- ◆ Identification and trade -importance in present day
- ◆ Preservation techniques and field collections

## ABOUT HOST

Established by the Government of India on February 3, 1947, under the Ministry of Agriculture and Farmers Welfare, the ICAR-Central Marine Fisheries Research Institute (CMFRI) has become a preeminent organisation in the study of tropical marine fisheries. CMFRI has contributed significantly to the advancement of marine fish production and the management of the fisheries industry with its unparalleled research skills and commitment. CMFRI's reputation as India's top marine fisheries research institute has been largely attributed to the abundance of data and knowledge it has gathered on fishery biology and biodiversity during the last 78 years. Numerous fishermen throughout the nation continue to benefit from its dedication to furthering research and encouraging sustainable fisheries management.

With constant improvements to its research infrastructure, CMFRI has expanded in size and reach since its inception. The Institute established a group of distinguished scientists who have played a significant role in expanding our knowledge of fisheries and marine ecosystems. The Institute's primary focus in the early decades of its existence was on the bio-economics of exploited finfish and shellfish stocks, as well as the estimation of marine fisheries landings, fishing effort assessments, and marine organism taxonomy research. In order to make sure that its taxonomic methods are in line with international research standards, CMFRI is now reviewing and improving them using contemporary technologies. In addition to its groundbreaking work in marine fisheries valuation and landings, CMFRI has expanded its research into a variety of specialised fields. These consist of coastal mariculture, sea farming, hatchery technologies for marine species that are commercially viable, biotechnological applications, biodiversity research, and the creation of sustainable ecosystem management plans. CMFRI also plays an integral role in policy studies related to marine resources and conservation.



## DURATION AND VENUE

The Short Course is offered during **February 18 to 28, 2025**. The programme will be hosted by ICAR-Central Marine Fisheries Research Institute (CMFRI), Kochi 682018, Kerala, India at its Headquarters, Kochi and is sponsored by Indian Council of Agricultural Research (ICAR), New Delhi.

## CORE CONTENT

The course offers a valuable opportunity to gain both theoretical and practical insights into the taxonomic techniques employed in research, analysis, conservation, sustainability, and future development. Given the inclusion of statistical analyses, participants will also be sensitized to the critical role of statistics in taxonomy and its application in fisheries research and development. The course places a strong emphasis on hands-on exercises, allowing participants to effectively internalize the knowledge and skills acquired throughout the training.

## ELIGIBILITY

The ICAR-sponsored Winter School program is primarily aimed at entry and mid-level NARS professionals, including those from KVKs, who are actively engaged in teaching, research, or extension services. Participants should hold positions no lower than Assistant Professor or equivalent in the relevant subject at State Universities, ICAR Institutes, or Central/State Fisheries Universities, and be involved in topics related to the program's focus. Applicants should hold a Master's degree in Science in Fisheries, Zoology, or related subjects from a recognized university and be actively working in the relevant fields.

## SELECTION OF PARTICIPANTS

The maximum intake for the program is 25 participants. Selection will be based on a first-come, first-served basis, in accordance with the eligibility criteria. However, the final selection of candidates rests at the discretion of the competent authority of ICAR-CMFRI. Nomination of participants by the respective heads of organizations does not guarantee participation in the program. A formal confirmation letter indicating the selection of candidates will be sent by ICAR-CMFRI one week after the closing date for receiving nominations.

## REGISTRATION OF PARTICIPANTS

Participants should submit their application online via the CBP portal of the Agricultural Education Division, ICAR (<https://cbp.icar.gov.in>). After completing the online application, print the application form, have it approved by the competent authority of your organization, and upload the scanned copy of the approved form on the CBP portal. The original copy, along with a non-refundable fee of ₹50/- in the form of a Demand Draft or Indian Postal