

# SERB Sponsored High-End Workshop (Karyashala) on Advances in Molecular Taxonomy and Phylogenetics

30<sup>th</sup> January to 8<sup>th</sup> February 2023

Organized by  
Division of Fish Genetics and Biotechnology  
ICAR-Central Institute of Fisheries Education  
Panch Marg, Versova, Mumbai-400061

Course Director  
**Dr. Aparna Chaudhari**  
Principal Scientist  
Fish Genetics and Biotechnology  
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Course Coordinators  
**Dr. Annam Pavan Kumar**  
Sr. Scientist, FGB Division, ICAR-CIFE, Mumbai  
**Dr. Kiran Rasal**  
Scientist, FGB Division, ICAR-CIFE, Mumbai

## Introduction

The science of taxonomy has gained immensely from the application of molecular markers that have been developed over last three decades. Phylogenetics in particular has become a widely used approach for species delimitation, understanding trait evolution, and biogeography. DNA markers can also resolve taxonomic ambiguity, uncover cryptic species, and reveal evolutionary history of species.

With different agro-climatic zones, India is considered as one of the mega biodiverse countries of the world. However, less than half of the biodiversity has been characterized at molecular level. Further, the next generation sequencing technologies facilitate identification of species from environmental samples. Thus, the workshop is designed to update researchers on DNA sequence-based species delimitation techniques and phylogenetics.

## Topics to be covered

- Concepts of molecular evolution and clock
- Molecular markers and applications
- DNA Barcoding
- Methods for species delimitation
- Molecular Phylogenetics

- Divergence time estimation
- Mitogenomics
- Metabarcoding

## Intake capacity

A total of 20 participants will be selected based on their research relevance to the training programme.

## Eligibility

PG and Ph.D. students only

## Accommodation

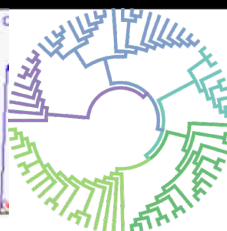
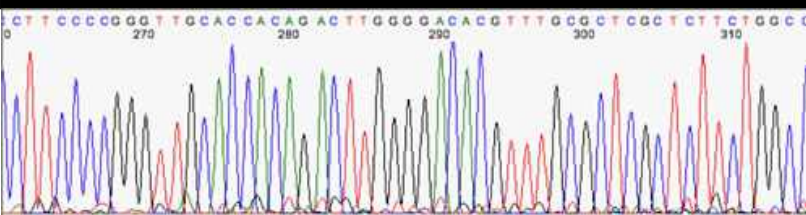
The participants shall be provided boarding and lodging in the institute guest house/hostel. In view of the shortage of space, participants may have to share room with others. Participants are advised not to bring their families, as accommodation for them is not possible.

## Travel Allowance

The participants will be paid TA for to and fro journey by rail/bus by the shortest route. The TA is restricted to AC-III normal train fair only (on producing documentary evidence).

## How to apply

The eligible students can apply in the prescribed format may sent to Dr. Aparna Chaudhari, Course Director on or before 15 January 2023.



ICAR-Central Institute of Fisheries Education  
(Deemed University)  
Mumbai  
www.cife.edu.in



## About the Institute

ICAR-Central Institute of Fisheries Education (Deemed University) is India's only national fisheries university. It is a premier institution dedicated to promoting higher fisheries education through generation of high-quality human resource, high end research in both basic and applied aspects, generation of appropriate technologies and their dissemination. CIFE alumni constitute the country's present leadership in this sector. CIFE has global linkages and a significant role in fisheries education of African and SE Asian countries.

The institute is located about 10 km from the airport and 20 km from Dadar Railway Terminus. Mumbai is well connected by rail and road with all major cities of India. The climate is pleasant during February and trainees are advised to carry light warm clothing.



## Fish Genetics and Biotechnology Division

The Division has been working in the area of molecular genetics since last two decades. In recent years, we have developed species specific DNA barcodes and delimited monogenean parasites, crustaceans, molluscs, elasmobranchs and teleosts. The Division has also unravelled mitochondrial genome of mahseer fishes, elasmobranchs and molluscs for species delineation, developed DNA markers for species/ stock/ hybrid identification and mined trait-linked SNP markers from transcriptomes.

## Dates to remember

Last date for submission of application : 15<sup>th</sup> January 2023  
Communication of selection : 16<sup>th</sup> January 2023  
Confirmation by the candidate : 17<sup>th</sup> January 2023

### Application Form

#### SERB Sponsored High-End Workshop on Advances in Molecular Taxonomy and Phylogenetics

30th Jan – 8th Feb 2023

1. Name in full (Block Letters) : .....
2. Degree currently pursuing (PG/Ph.D) : .....
3. Date of Birth and Age : .....
4. Gender : .....
5. Department : .....
6. Institute / University : .....
7. Address for Correspondence : .....
8. Mobile Number : .....
9. Email ID : .....
10. Academic Record : Please fill up the table below.

Examination Passed	Subject	Year	Marks (%) /OGPA/CGPA/ Pursuing
Bachelor Degree	_____	_____	_____
Master Degree	_____	_____	_____
Ph.D	_____	_____	_____

The above information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the programme.

Date:

Signature of the applicant

Recommendation by the forwarding authority (HOD/Major Guide)

Mr. /Ms. .... is hereby nominated for participating in the SERB sponsored High-End workshop on "Advances in Molecular Taxonomy and Phylogenetics" held at ICAR-CIFE, Mumbai from 30th Jan to 8th Feb 2023.

Date:

Signature and Seal