



Introduction

The science of taxonomy has gained immensely from the application of molecular markers that have been developed over last three decades. DNA barcoding in particular has become a widely used technique for species identification of aquatic animals which exhibit high phenotypic plasticity. DNA markers can also resolve taxonomic ambiguity, uncover cryptic species and reveal evolutionary history among 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. The training programme 'Molecular Taxonomy and DNA Barcodes' is designed to update researchers on DNA sequence based species delimitation techniques.

Topics to be covered

- Concepts of molecular evolution and clock
- Molecular markers and applications
- DNA barcoding and methods for species delimitations
- Molecular phylogenetics
- Mitogenomics
- Meta barcoding

Intake capacity

A total of 25 participants will be selected based on their research relevance to the training programme.

Eligibility

Assistant Professors/Scientists/Technical Officers /Graduate and Post-graduate students

How to apply

A copy of the duly filled application form in the format as given in this brochure may directly be sent to Dr. Aparna Chaudhari, Course Director, "Molecular Taxonomy and DNA Barcodes" ICAR-CIFE, Panch Marg, Versova, Mumbai-400 061 on or **before 20**th **January 2019.**

Course Fee

Rs.5000/- (Rupees Five thousand only) to be paid as course fee at the time of registration or as DD drawn in favor of "ICAR Unit, CIFE, Mumbai" payable at Mumbai.

Travel and Logistics

TA and DA will not be paid. Facilities for paid boarding and lodging may be provided in the campus, as per the availability. Boarding and lodging in the dormitory/twin sharing (if available) - Rs.150-250/day, single room (if available) - Rs.1500-2000/day (AC), while food charges would cost approximately Rs. 250/day.



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 with confirmatory nuclear markers. The division has also unravelled mitochondrial genome of mahseer fishes for species delineation, developed microsatellites and mined SNPs for a number of species.