

INTERNATIONAL TRAINING WORKSHOP ON ICHTHYOTAXONOMY

MARCH 23 to 27, 2021

Organized by
Department of Aquatic Biology and Fisheries
UNIVERSITY OF KERALA
Thiruvananthapuram - 695 581, Kerala State, India



In association with
Kerala University of Fisheries and Ocean Studies (KUFOS)
Kochi - 682 506, Kerala State, India



Supported by
UNIVERSITY OF KERALA



ITWIT 2021



ABOUT THE WORKSHOP

Global biodiversity is being lost at an unprecedented rate as a result of several (and often interacting) anthropogenic stressors, despite concerted international efforts to prevent and reduce biodiversity loss, and develop strategies to overcome this alarming scenario. One of the challenges in biodiversity documentation and conservation is the taxonomic impediment - the lack of taxonomic expertise to catalogue the rich diversity of life, together with lesser importance and priority given to this essential branch of life sciences. Even within the conservation framework, taxonomy at the species level is often ignored and neglected in the name of 'taxonomic sufficiency' which surrogates the much-required science-based conservation planning and management.

Freshwater fishes comprise one of the most diverse and threatened vertebrate groups, with the Indian subcontinent globally renowned for its unique diversity and endemism, and the presence of hundreds of threatened species. Though the region has a rich history of ichthyological research dating back to the late 18th century, there has been reduced recognition and attention in this field during the last fifty years. Currently there are very few trained and internationally-known ichthyologists in India, and few efforts to develop capacity among the next generation of researchers and students. The proposed **International Training Workshop on Ichthyotaxonomy** is an effort to strengthen the knowledge base in fundamentals of freshwater fish taxonomy, with the help and support of leading global and regional experts in the field. The goal of the workshop is to impart to participants the necessary skills and knowledge required to address the taxonomy and systematics of freshwater fishes of the Indian subcontinent, from where possibly hundreds of species are waiting to be discovered and described. The workshop will cover a range of topics from basic taxonomic concepts, field work and preservation, museums and collections, morphotaxonomy, osteology, application of statistics, to advanced areas such as phylogenetics and biogeography. There will also be sessions devoted to publication of taxonomic papers.



Who Can Participate?

Early-career-researchers (PhD, Postdocs, Junior Scientists, Assistant Professors) working on fish taxonomy, or fish taxonomy-related projects, or post-graduate/master's students currently undertaking fish taxonomy related research. Amateurs engaged in studies related to fish diversity will also be selected after providing a reasonable justification to participate in the workshop.

How to Apply?

Interested candidates may submit their application along with a short CV and justification, for participation in the workshop. Masters students, PhD scholars, research fellows and Postdoctoral researchers need to submit the application through the concerned Head of the Department/Mentor/Supervisor. Scientists and Faculty members are requested to produce a letter of recommendation from their head of the Department.

IMPORTANT DEADLINES

Last date for submission of application:

March 15, 2021

Communication for acceptance of participants:

March 20, 2021

All participants will receive an e-certificate of attendance/participation



ORGANISING COMMITTEE

Patrons

Prof. V.P. Mahadevan Pillai

(Hon'ble Vice-Chancellor, University of Kerala)

Prof Dr. K. Riji John

(Hon'ble Vice-Chancellor, Kerala University of Fisheries and Ocean Studies)

Dr. Ajayakumar P.P.

(Hon'ble Pro-Vice-Chancellor, University of Kerala)

Advisors

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Dr. B. Manoj Kumar, Registrar-in-Charge, KUFOS

Adv. K.H. Babujan, Member of Syndicate, UoK

Dr. S. Nazeeb, Member of Syndicate, UoK

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Dr. Radhamany P.M., Director, School of Life Sciences, UoK

Organising Committee

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Dr. K. Ranjeet, Dept. of Aquatic Environment Management, KUFOS

Course Directors

Dr. A. Bijukumar (University of Kerala) & **Dr. Rajeev Raghavan** (KUFOS)

The application along with a brief CV and a justification for participating in the workshop is to be submitted to

Dr. S. M. Raffi, Organising Secretary (ITWIT 2021)

**Department of Aquatic Biology & Fisheries,
University of Kerala**

Kariavattom, Thiruvananthapuram, 695 581, Kerala, India

Ph: 9497393516 | Email: conferenceaqbf@gmail.com

**THERE WILL BE NO
REGISTRATION FEE
and selection to the
workshop will be based
on the involvement
of participants in fish
taxonomy research/study.**

WORKSHOPS SPEAKERS

Some of the world's leading experts in the field of freshwater fish taxonomy and systematics will deliver lectures and interact with the participants



Peter K. L. Ng

Lee Kong Chian Natural History Museum, National University of Singapore, Singapore

With over 500 publications in the peer-reviewed literature, Peter is one of the world's foremost aquatic taxonomists, and heads the Lee Kong Chian Natural History Museum in Singapore. Having started his career as a fish taxonomist, Peter's current work is centered on the diversity and biology of marine and freshwater crabs in the Indo-West Pacific. Explorations, discoveries of new habitats and new species, understanding their evolution and conserving them are all missions of his laboratory at the National University of Singapore.



Rohan Pethiyagoda

Ichthyology Section, Australian Museum, Sydney, Australia

ROHAN is one of Asia's finest naturalists, former Deputy Chair of the IUCN Species Survival Commission, and a leading expert on the taxonomy of freshwater fishes. Together with colleagues, Rohan has been responsible for the discovery and/or description of almost 150 new species of vertebrates and invertebrates from Sri Lanka and the Western Ghats, including fishes, amphibians, reptiles and freshwater crabs. He is an Editor of the Asian freshwater fish section of *Zootaxa*.

WORKSHOPS SPEAKERS



Vishwanath Waikhom

Department of Life Sciences,
Manipur University, Imphal, India

VISHWANATH is one of India's leading freshwater fish taxonomists known for his exemplary contributions to improving the knowledge on the ichthyofauna of the Eastern Himalaya, and also for its efforts in training and capacity building in taxonomy and systematics in North Eastern India. He is credited with the discovery and description of more than 100 species of fish. A new genus of freshwater fish, *Waikhomia* was recently named in his honour.



Ralf Britz

Senckenberg Natural History
Collections, Dresden, Germany

RALF is interested in understanding comparative anatomy, phylogenetics, and taxonomy of actinopterygian and sarcopterygian fishes, ranging from general questions of evolutionary biology and homology, and higher-level relationships to basal problems in taxonomy and systematics of various fish groups. Ralf has described more than 100 species of fish, several new genera, and two unique families, including one of the world's smallest vertebrate (*Paedocypris progenetica*) and the enigmatic living fossil- the dragon snakehead (*Aenigmachanna gollum*).



Roberto Esser dos Reis

Pontifical Catholic University of Rio
Grande do Sul, Porto Alegre, Brazil

ROBERTO is a Professor and Curator of Fishes at the Pontifical Catholic University of Rio Grande do Sul in Brazil. He is an authority on the systematics and biodiversity of Neotropical catfishes, and has till this date described over 100 fish species, and several new genera. Roberto is currently the South America Chair of the IUCN's Freshwater Fish Specialist Group, and an editorial board member of *Copeia* and *PLoS One*.

WORKSHOPS SPEAKERS



Jörg Freyhof

Natural History Museum, Berlin,
Germany

JÖRG'S research activities focus on aquatic biodiversity explorations, molecular systematics, evolutionary genetics and international biodiversity policies. His publication 'Handbook of European Freshwater Fishes' is one of the most highly cited works in fish taxonomy and conservation. Jörg has discovered and described over 100 new species of freshwater fish to science from various parts of Asia and Europe, and is an Editor of the Middle East Asian freshwater fish section of *Zootaxa*.



Oliver Crimmen

Natural History Museum, London,
United Kingdom

OLIVER (Ollie) Crimmen is a Senior Curator at the Fish Section of the Natural History Museum (British Museum of Natural History), London. Ollie joined the Museum in 1973 aged 19, and is one of its longest serving staff members. He is responsible for preserving and maintaining of one of the most important fish collections in the world including several hundred fish types from the Indian subcontinent comprising of the collections of Sir Francis Day and Albert Günther.



Lukas Rüber

Natural History Museum, Bern,
Switzerland

LUKAS is curator of Ichthyology and Herpetology at the Museum of Natural History of Bern, where he studies the patterns and processes of evolutionary diversification at different spatial and temporal scales, by focusing on fish adaptive radiations and biodiversity hotspots. His current research focuses on the diversity of south east Asian fishes, miniature fishes and their development, mechanisms of speciation in cichlids, and evolution in gobies.

WORKSHOPS SPEAKERS



Madhava Meegaskumbura

Guangxi University, Nanning, P.R.
China

MADHAVA is interested in the evolutionary biology of both fishes and amphibians of Southern Asia. He has published >70 papers, including four in SCIENCE, and has described more than 50 species of frogs, freshwater fishes and a small mammal, together with several significant contributions to higher order taxon classification. He serves as a Co-Chair for the IUCN Amphibian Specialist Group Sri Lanka and is also a member of the IUCN Amphibian Red List Authority.



J.A. Johnson

Wildlife Institute of India, Dehradun,
India

J.A. JOHNSON is a Senior Scientist at the Wildlife Institute of India, where he works on the taxonomy, ecological structure and conservation of freshwater fishes. Though he started his career working in the streams of the Western Ghats, Johnson's recent work has expanded to the Himalayan waters of the Ganges, Brahmaputra and Indus systems as well as the poorly-studied Central Indian landscape. He currently works on a project focusing on the long-term monitoring of fish populations in selected regions of the Indian subcontinent.



Heok-Hui Tan

Lee Kong Chian Natural History
Museum, National University of
Singapore, Singapore

HEOK HUI TAN is based at the Lee Kong Chian Natural History Museum of the National University of Singapore. His main interest lies in the systematics of Southeast Asian freshwater fishes, encompassing taxonomy, ecology and biogeography, with particular focus on hill-stream loaches. Heok-Hui's primary areas of research focus on neglected and de novo habitats such as peat swamp forests, swamp forests, and rapids

WORKSHOPS SPEAKERS



Michael Hammer

Museum and Art Gallery of the
Northern Territory, Darwin, Australia

MICHAEL is curator of fishes at the Museum and Art Gallery of the Northern Territory, Darwin, Australia where his work involves biodiversity assessment and species discovery, linking the taxonomy and ecology of fishes into wider conservation issues, providing key advice to management, promoting awareness of fishes and their plight, and specific recovery action.



Kevin Conway

Texas A&M University, College
Station, United States of
America

KEVIN is an Associate Professor/Curator of Fishes, Biodiversity Research and Teaching Collections at the Texas A&M University. The central goal of his research is to document the taxonomic, anatomical, ontogenetic, and genetic diversity of teleost fishes, not only to further understanding of vertebrate anatomy in general, but also to discover novel characters to advance our understanding of the phylogenetic relationships of teleost fishes.



George Mattox

Departamento de Biologia (DBio),
Universidade Federal de São Carlos,
São Carlos, Brazil

GEORGE is based at the Universidade Federal de São Carlos, Brazil where his research focus is on taxonomy, developmental biology and anatomy of fishes. His current project investigates the diversity and systematics of *Priocharax*, a characiform genus of miniature fishes. George and colleagues described *Cyanogasternoctivaga* or the blue-bellied night wanderer, a tiny, nocturnal, and transparent fish which is also one of the smallest vertebrates attaining a maximum length of only 17 mm.

WORKSHOPS SPEAKERS



Neelesh Dahanukar

Indian Institute of Science Education and Research, Pune, India

NEELESH is a Research Scientist at Indian Institute of Science Education and Research (IISER), Pune, India, where he carries out research on taxonomy, molecular phylogenetics and biogeography of freshwater fishes. He has been instrumental in popularizing integrative taxonomy for understanding the diversity of freshwater fishes of the Western Ghats, and has described one family, four genera and 20 species of freshwater fish, and a new genus and 10 species of amphibians



Siby Philip

Nirmalagiri College, Kannur University, Kannur, India

SIBY PHILIP is an Assistant Professor at Nirmalagiri College, Kannur, India. For his PhD at the University of Porto, Portugal, Siby studied the evolutionary comparative genomics of vertebrates. Siby is interested in the application of novel tools and techniques to answer questions in molecular phylogenetics and biogeography, and has also developed innovative methods for DNA isolation. He is a self-confessed linux, and open-source software enthusiast



J.D. Marcus Knight

Ministry of Environment, Forests and Climate Change, Government of India, New Delhi, India

MARCUS is a Scientist at the Ministry of Environment, Forests and Climate Change, Government of India. Having kept fish since he was a kid, Marc is an avid fish hobbyist who completed his PhD on the taxonomy of small cyprinids of the Western Ghats. His work has resulted in the description of 19 new species of freshwater fishes from various biogeographic regions of India including the Western Ghats and the Eastern Himalayas.

WORKSHOPS SPEAKERS



Rameshori Yumnam

Department of Life Science, Manipur University, Imphal, Manipur

RAMESHORI is an Assistant Professor at the Manipur University, India. Her research interests are on the taxonomy, systematics and molecular phylogenetics of freshwater fishes of North East India, particularly in the rivers of Mizoram and Manipur. Her PhD on sisorid catfishes of the North East Indian region resulted in the description of four new species of *Glyptothorax*. She is actively involved in building capacity in aquatic biodiversity and freshwater fish taxonomy in the region.



Anil Mohapatra

Zoological Survey of India (ZSI), Gopalpur-on-Sea, Odisha

ANIL is a Scientist at the Estuarine Biology Regional Centre of the Zoological Survey of India (ZSI) at Gopalpur-on-Sea, Odisha. He has over a decade's experience in aquatic biodiversity studies and taxonomy of estuarine and coastal finfishes, particularly focusing on eels of the order Anguilliformes. He has described 14 new species of fish from the coastal waters of India, and has to his credit several papers documenting new records of marine eel species from the region.



Adrian Pinder

Bournemouth University, Dorset, United Kingdom

ADRIAN PINDER is based at the Bournemouth University, Dorset, United Kingdom and also the Trustee & Chair of the Mahseer Trust, a conservation NGO working to ensure a sustainable future for mahseers of the world. His area of expertise is fish biology, ecology and conservation, particularly early larval ecology of freshwater fishes. He has more than 30 years' experience of monitoring and managing fish populations. His first visit to South India's River Cauvery in 2010 signified the onset of a personal obsession to address some of the many knowledge gaps which currently constrain the development of effective conservation plans to protect mahseer.

COURSE DIRECTORS



A Biju Kumar

Department of Aquatic Biology
and Fisheries, University of Kerala,
Thiruvananthapuram, India
(<http://www.abisys.in/>)

BIJU KUMAR is Professor and Head at the Department of Aquatic Biology and Fisheries, University of Kerala. As one of India's leading aquatic taxonomists and biodiversity experts, he has popularized and helped build capacity in the subject, by training several young researchers in the taxonomy and systematics of freshwater and marine invertebrates, and fishes. He has described 43 species and 6 genera of aquatic organisms, and has close to 200 publications.



Rajeev Raghavan

Department of Fisheries Resource
Management, Kerala University of
Fisheries and Ocean Studies,
Kochi, India
(<http://fishlab.in/>)

RAJEEV is an Assistant Professor at the Kerala University of Fisheries and Ocean Studies, and the South Asia Coordinator of IUCN's Freshwater Fish Specialist Group. He studies fundamental and applied aspects of tropical aquatic biodiversity, particularly focusing on systematics, life history, evolutionary biogeography and conservation of freshwater fishes. He has described 18 new species, 3 genera and 2 enigmatic families of freshwater fish, and a unique new genus and species of blind subterranean shrimp, and has over 150 publications.

