

## Call for Participants

### Fish Barcoding and Functional Ecology Workshop: Monitoring the Status of Marine Coastal Ecosystems

07.03.2022 – 01.04. 2022

The Leibniz Centre for Tropical Marine Research (ZMT) and Kenya Marine and Fisheries Research Institute (KMFRI) invite you to participate in a comprehensive, fully-funded workshop on fish barcoding and functional ecology. The workshop will focus on compiling and sharing both theoretical knowledge and practical laboratory skills. Your participation will provide you with advance skills to quantify the taxonomic and functional structure of marine fish assemblages as well as different facets of biodiversity. You will get the chance to apply state-of-the-art genetic tools and integrate these data in functional ecology approaches. Emphasis will be put on minimising the cost associated with molecular tools to transfer affordable and broadly-applicable technologies. The covered methods allow for identification of mislabelled fish species in markets and landing sites. The labwork will take place at the modern KMFRI molecular lab in Mombasa Kenya from 14.03 - 25.3.2022 and will include one week of online activities in advance and after the physical wet lab focused course.

**Lecturers:** Dr. Sonia Bejarano (ZMT), Dr. Levy Otwoma (KMFRI), Prof. Oscar Puebla (ZMT) and Dr. Achim Meyer (ZMT).

#### Who is this course for?

This workshop is aimed at early researchers (MSc or PhD) working in the field of marine fish biodiversity, coral reefs or functional ecology. In particular, female researchers and students are encouraged to apply. A moderate proficiency in wet-lab skills such as pipetting is desired, however the course will cover principles of safe and clean lab work. In addition to an interest in laboratory work, prior bioinformatics knowledge such as R programming is helpful. Applications from sub-Saharan African residents working in academic institutions, governments, research institutes, universities and NGOs will be taken into consideration.

#### By the end of the course participants will be able to:

- Give an overview on the use and application of functional traits in fisheries.
- Document and store fish specimens for molecular barcoding analyses.
- Generate reliable data from single gene sequencing and qPCR species detection.
- Assign fish species to a taxonomic rank by performing database queries in public molecular databases and interpret results.
- Develop skills to make informed decisions about molecular marker choice, laboratory needs and interpretation of acquired sequence data.
- Synthesise knowledge on functional ecology and effectively communicate about DNA Barcoding in grant proposals.
- Deliver research results to stakeholders or policy makers for example via conceptual diagrams.

#### [Application Deadline 7<sup>th</sup> January 2022](#)

#### Some highlights:

- Flight, labwork and accommodation cost will be **fully covered** by the **Volkswagen Foundation**.
- Application of state of the art **molecular labwork**.
- An integrated two-day networking **symposium** at KMFRI with keynote speaker Dr. **Monica Mwale** South African National Biodiversity Institute (SANBI), Pretoria, Prof. **Sophie von der Heyden**, Marine Genomics and Conservation, Department of Botany and Zoology, University of Stellenbosch, South Africa and **Cynthia A. Adinortey** (PhD), Department of Molecular Biology and Biotechnology, School of Biological Sciences, College of Agriculture and Natural Sciences, University of Cape Coast, Ghana.

**Funded by:**