Tropical rainforest biodiversity: field and GIS tools for assessing, monitoring and mapping IV edition

The school is organized by MUSE Science Museum and University of Trento in collaboration with Tanzania National Parks and Natural History Museum of Denmark. The school will be based at UEMC Udzungwa Ecological Monitoring Centre, a field station managed by MUSE and annexed to the Udzungwa Mountains National Park.

Lecturers
Dr. Marco Ciolli, Lecturer (GIS and forest ecology) University of Trento
Dr. Francesco Rovero, Curator (tropical biodiversity and forest mammals) and Dr. Clara Tattoni, Research Fellow (GIS and ecological modeling) MUSE
Dr. Nikolaj Scharff, Professor (arachnology) and Dr. Thomas Pape, Associate Professor (entomology) Natural History Museum of Denmark

Information: udzungwa.school@gmail.com
Registration form, FAQs, school program: http://www.muse.it/it/La-Ricerca/Biodiversita-tropicale/Proposte-formativie/Pagine/Summer-School-2015.aspx

The school is open to a maximum of 15-20 students that have obtained, or are about to complete, a B.Sc. degree on relevant disciplines (natural sciences, wildlife conservation, zoology, conservation biology). In collaboration with TANAPA the course will also train Tanzanian students and ecologists.

Course overview and eligibility

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The Udzungwa Mountains of southcentral Tanzania form the largest massif of the world renown Eastern Arc Mountains. Also called the "Galapagos of Africa," these ancient mountains are covered in rainforests and are one of the top global biodiversity hotspots. The Udzungwas in particular, are one of the single, most important areas in Africa for biodiversity conservation. The forests are home to thousands of endemic species, including relatively large mammals such as two monkeys (Udzungwa red colobus and Sanje mangabey), and the recently discovered giant sengi, or elephant-shrew. The east-facing, steep forest escarpment of the mountains range in altitude from 300 to 2600 m, which is unique for the continent.

The course fee is 1,000 Euro.

The fee covers transport to Udzungwa from and to Dar es Salaam, all lessons, food and accommodation at the Udzungwa Ecological Monitoring Centre and Dar es Salaam and park entrance fees for field trips. The fee does not cover the flight and Visa. Participants will be required to arrange their own international travel health insurance before arrival.

### Programme overview

2. Surveying and inventoring forest vertebrates, with emphasis on primates and terrestrial mammals.
3. Habitat and human disturbance assessment for wildlife studies, with focus on vegetation sampling for habitat modeling.
4. Key monitoring tools for mammals: line-transects for primates and camera trapping for terrestrial mammals.
5. Abundance estimation methods, using primates and camera-trapped mammals as target groups.
6. Using GPS for orientation, mapping, recording points and routes.
7. GIS (Geographic Information Systems). Storing, visualizing and analyzing environmental data in different formats and from different sources (using open source QGIS GRASS).
8. Handling wildlife data in GIS: mapping, visualizing data from GPS surveys, home range estimation and calculation of kilometric indices of abundance.
9. Habitat modeling in GIS: creation of distribution and habitat suitability maps.
10. Surveying and inventoring terrestrial arthropods: megadiversity, sampling protocols and the taxonomic impediment (Sharff, Pape)