

Through a combination of field trips in the fabulous rainforests of the Udzungwa Mountains National Park, lessons and practical exercises on the PC, the course aims to provide field and GIS tools for assessing forest biodiversity, especially rainforest mammals integrating state-of-the-art field techniques to assess key indicator species with GIS tools to map and model species distribution. This edition will include a complementary module on terrestrial arthropods. The field exercises will be based on the extensive monitoring efforts conducted by Trento Science Museum and the Udzungwa Ecological Monitoring Centre, making an excellent set-up to practically learn the tools to assess and monitor forest biodiversity.



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 and WCS, the course also aims to train Tanzanian ecologists.

The school is organized by Trento Science Museum (Italy) and University of Trento in collaboration with Tanzania National Parks and Wildlife Conservation Society, Tanzania programme. The school will be based at the Udzungwa Ecological Monitoring Centre, a field station annexed to the National Park and managed by Trento Museum.

Trainers

Dr. Marco Ciolli, Lecturer, (GIS and forest ecology expert) [University of Trento](#)

Dr. Francesco Rovero, Curator, (tropical biodiversity and forest mammal expert) and

Dr. Clara Tattoni, Research Fellow (GIS and ecological modeling expert) [Trento Museum](#)

Dr. Nikolaj Scharff, Associate Professor (arachnologist) and Dr. Thomas Pape, Associate Professor (entomologist), [Danish Museum of Natural History](#)

Other international biodiversity experts will teach specific modules.



UNIVERSITÀ DEGLI STUDI
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In collaboration with:



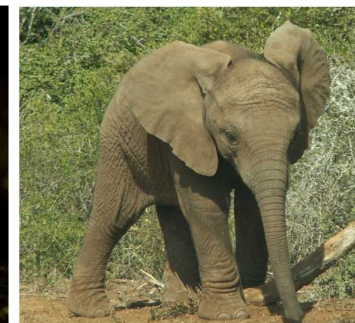
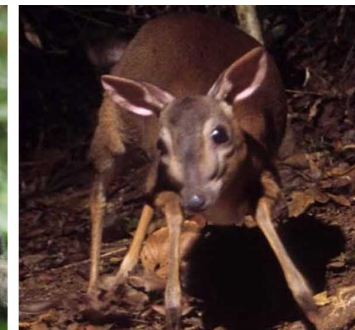
Further information

udzungwa.school@gmail.com

Registration form, FAQs, school programme:

http://www.mtsn.tn.it/INGLESE/ing_sezioni/sum-sch12.asp

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



Udzungwa Mountains National Park

Tanzania

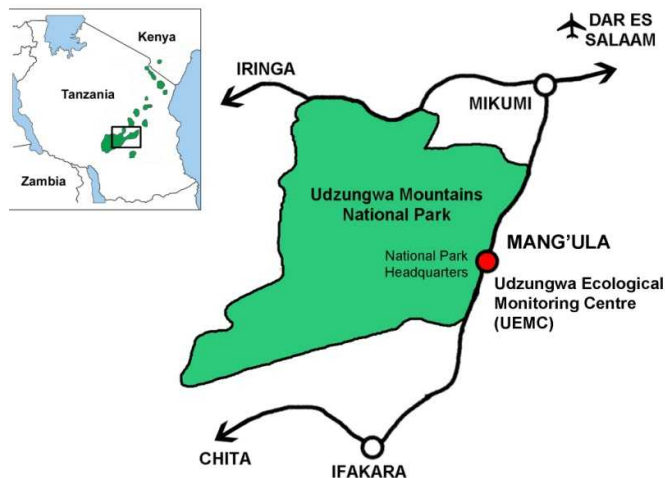
Udzungwa Mountains

The Udzungwa Mountains of southcentral Tanzania are the largest massif of the world renowned Eastern Arc Mountains. Also called the "Galapagos of Africa", these ancient mountains are covered in rainforests and are part of 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 dozens 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 in the continent.

Fees, registration and logistics



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 have their own international travel health insurance.



Programme overview

- 1) Eastern Arc rainforest ecosystem introduction: biological importance and conservation.
- 2) Surveying and inventorying 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 inventorying terrestrial arthropods: megadiversity, sampling protocols and the taxonomic impediment (Sharff, Pape)

