

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. The course focus into integrating state-of-the-art field techniques to assess key indicator species (e.g. primates and forest ungulates) with GIS tools to map and model species distribution. The field exercises will be based on the extensive monitoring efforts conducted in the area 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. <http://www.udzungwacentre.org>



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). A number of Park Ecologists from forest National Parks in Tanzania will also participate.

Trento Science Museum (Italy) and the University of Trento in collaboration with Tanzania National Parks organize the first summer school on tropical rainforest biodiversity to be held in the Udzungwa Mountains National Park, Tanzania, in the summer of 2011. 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, [University of Trento](#) (GIS and forest ecology expert)

Dr. Francesco Rovero, Curator, [Trento Museum](#) (tropical biodiversity and forest mammal expert)

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

Other international biodiversity experts based in Tanzania will teach specific modules.



UNIVERSITÀ DEGLI STUDI
DI TRENTO



museo tridentino
di scienze naturali

the science museum network in Trentino - Italy

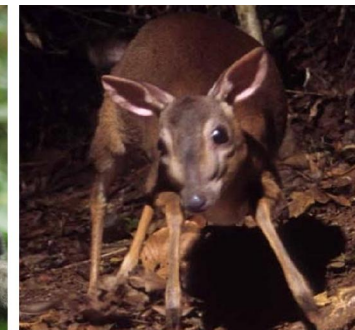
Further information

udzungwa.school@gmail.com

For registration form, FAQs and detailed school programme please visit:

http://www.mtsn.tn.it/INGLESE/ing_sezioni/sum-sch11.asp

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



Udzungwa Mountains National Park

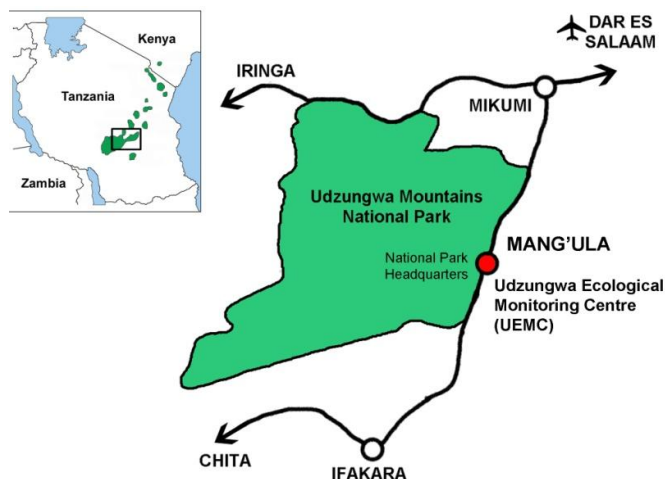
Tanzania

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.



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, park entrance fees for field trips. The fees does not cover the flight to and from Dar es Salaam, accommodation in Dar es Salaam prior and after the travel to Udzungwa Mountains, and Visa. Participants will be required to have their own international travel health insurance.



- 1) Introduction to the Eastern Arc rainforest ecosystem: 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) Introduction to the use of GIS (Geographic Information Systems).
- 8) Overview of Free and Open source GIS (QGIS GRASS) and their usage to store, visualize and analyze environmental data in different formats and from different sources.
- 9) Handling wildlife data in GIS: mapping, visualizing data from GPS surveys, home range estimation and calculation of kilometric indices of abundance.
- 10) Habitat modeling in GIS: creation of distribution and habitat suitability maps.

