

CONSERVATION OF MOUNTAINS IN NORTHERN MOZAMBIQUE

The mountains of northern Mozambique were always believed to be important for biological conservation and the home of many rare and threatened species not found elsewhere. However, little was known scientifically about them and they are not yet formally protected.

To address this problem a project called "Monitoring and Managing Biodiversity Loss in South-East Africa's Montane Ecosystems" was developed by the Royal Botanic Gardens, Kew and BirdLife International, the Instituto de Investigação Agrária de Moçambique (IIAM), the Mulanje Mountain Conservation Trust (MMCT) and the Forest Research Institute of Malawi. Focussing primarily on Mozambique, the project built on the wide knowledge of Kew on plants and BirdLife International on birds, and on the experience gained by MMCT in practical conservation and monitoring on Mt Mulanje in adjacent Malawi. The main departments of IIAM involved were the National Herbarium, Forestry Research and the Land and Water Department. The Natural History Museum, part of Eduardo Mondlane University, also participated.

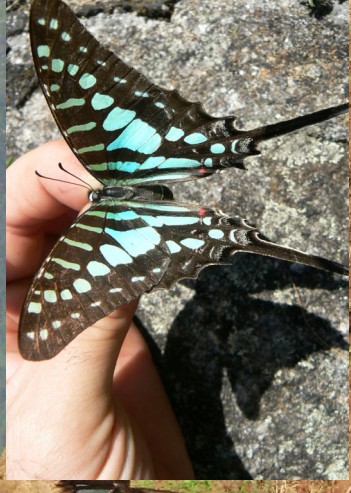
The project was funded under the UK Government's Darwin Initiative and started in July 2006. The Darwin Initiative assists countries that are rich in biodiversity but poor in financial resources to implement the Convention on Biological Diversity (CBD) through the funding of collaborative projects which utilise UK biodiversity expertise.

The project's main objectives were to gather information and develop tools and skills to enable biodiversity management and monitoring across some of these mountains.

Over the three years we have run five expeditions to three montane areas in Mozambique and one in Malawi, during which many new and exciting discoveries were made.

Activities included:

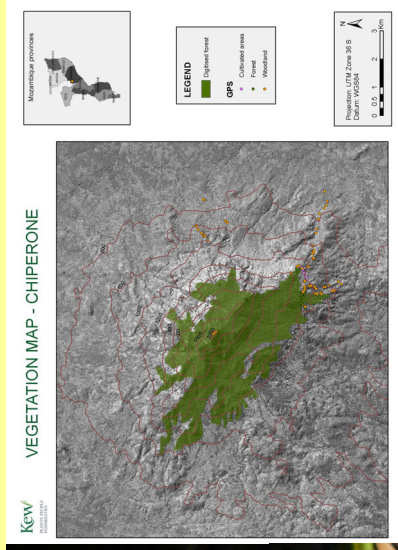
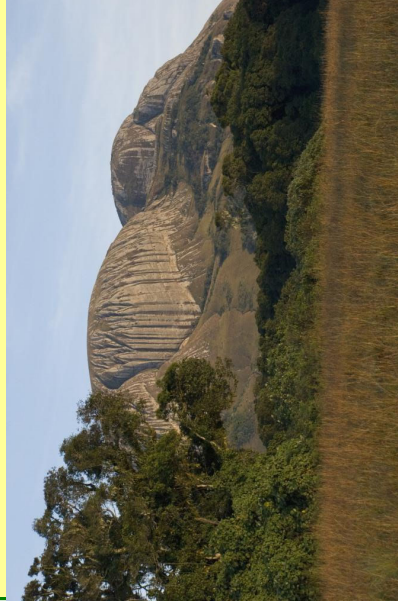
- carrying out field surveys of plant species, vegetation and birds,
- training a team of researchers and fieldworkers from Mozambique and Malawi to gather and utilise data for both management and monitoring,
- making recommendations and promoting conservation management to the appropriate national or regional authorities.





MAIN OVERALL FINDINGS

1. There is much nationally and internationally significant and exciting biodiversity still to be found in Mozambique, especially in the northern Provinces. The levels of diversity are higher than previously thought, and there is still much to be discovered.
2. Important and spectacular biodiversity can include plants, small vertebrates and insects, as well as the more obvious larger animals.
3. There are a significant number of species – plants, birds, reptiles and insects – that are found only on one or more of these mountains and nowhere else in the world. The Mozambique Government has particular responsibility for the conservation of these species under the CBD.
4. The isolated mountains of northern Mozambique are globally important areas for conservation, forming part of a series of biodiversity "stepping stones" between the mountains of eastern Zimbabwe, southern Malawi and the highlands of southern Tanzania for birds and plants. At present none of these mountains in Mozambique are formally protected and their often unique biodiversity is often unrecognised. Several have good potential for ecotourism.
5. Conservation of these scattered montane areas could also be addressed through trans-border initiatives, in particular with Malawi. Such initiatives would build on regional expertise, experience and partnerships, and would allow for greater international recognition and support.
6. Conservation areas do not have to be very large or formal, such as designation as a National or Transfrontier Park, in order to conserve important biodiversity. For example, Important Plant Areas – specific areas with particularly rich or special biodiversity or habitats – can be a very useful way to expand a network of national conservation areas, without necessarily altering people's way-of-life.
7. Biologists, foresters, herbaria and natural history museums have historically had an important role to play in conservation, and should be fully involved in all conservation projects and initiatives. Such institutions and professionals have a wealth of knowledge that needs to be better utilised.



	Mt Chipirone	Mt Mabu	Mt Namuli
Locality	Mt Chipirone in Milanje District, historically associated with nearby Mt Mulanje.	Mt Mabu in Tacuane District. Previously virtually unknown and unexplored scientifically. Some abandoned tea estates on S slopes	Namuli massif in Gurué District. Surrounded on the S & W sides by tea plantations, now being rehabilitated. c. 15,000 people in area
Shape	Isolated steep-sided conical mountain with ridge	Elevated area of forest-covered ridges and peaks	Massif with series of upland plateaux out of which rise some large rocky domes
Extent, highest point	49 km ² above 800 m; highest point 2054 m	Area c. 140 km ² above 800 m; highest point 1710 m	Massif covers 200 km ² ; main plateau at 1800–1900 m; main peak 2419 m
Forest area & type	1600–1700 ha of quality moist forest from 1000–2000 m; montane forest above 1600 m. Very limited area of other habitats	Over 6900 ha of moist forest, most medium-altitude between 1000–1600 m; c. 850 ha above 1400 m	1100 ha of moist montane forest, most above 1700 m. Only 135 ha of medium-altitude forest in small patches below 1600 m
Conservation importance	Pristine forest of various types; good surrounding miombo woodland	Possibly largest medium-altitude forest in southern Africa. All in very good condition. Forest provides perennial water supply. Still likely to still be new species	Most important habitats are 300 ha of scarce upland peat grassland, extensive patches of montane forest, and few patches of medium-altitude and riverine forest. Area above 1500 m is important for conservation; major regional significance
Plants	229 species above 800 m, 3 new Mozambique records. No new plant species	Identification of plant specimens not completed. At least 250 species	530 species above 1000 m, 26 new Mozambique records, 5 new species and 16 endemics known only from Namuli
Birds	Forest important for 2 globally-threatened bird species, Thyolo Alethe & White-winged Apalis. Recognised as Important Bird Area	126 species, including 5 that are globally threatened. Populations of Thyolo Alethe & Green Barbet particularly important globally	155 species, good populations of 5 globally threatened species. Recognised as Important Bird Area. Main locality for Mozambique's only endemic bird
Reptiles		New forest snake (<i>Atheris</i>), possibly 2 other new snakes and a chameleon	New dwarf chameleon, plus 4 lizards thought previously to only occur on Mt Mulanje
Butterflies	56 species, 6 new Mozambique records	156 species, 5 new to science. 32 new Mozambique records	126 species, 7 new to science. Area with highest number of endemic butterfly species in Mozambique
Threats	Loss of third of forest cover 1969–2002 from cultivation on S and SE slopes. Threats from wildfire along forest margin and in gullies	Few threats at present; wildfire, bushmeat, no tree cutting. Risk if tea estates reopen	Increasing threats, principally logging for timber, clearance for potato cultivation. Also vegetation destruction by semi-wild pigs, cattle grazing, bushmeat, wildfire. Conservation action needed soon
Potentials	Important for year-round water supply to villages below; water is a critical issue	Ecotourism from publicity and wilderness	Ecotourism, very scenic, back-packing, water catchment