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Taking a closer look at biodiversity hotspots



mozambique

Notice on the 2009 expedition

Context

The dry topical dry forests

Tropical dry forests are among the most endangered habitat in the world, a reality obscured by the omnipresence of rainforest in international campaigns to limit tropical forest degradation and destruction. Of the planet's 13 major terrestrial biomes, tropical dry forests are the most severely affected by humanity. Nearly half of these forests (48.5%) have already completely disappeared through being converted to other uses. A larger percentage of this biome has been destroyed than the temperate forests (46.6%) or the wet tropical forests (32.2%).

The Pro-Natura – Paris Muséum Initiative

Under the joint initiative of Pro-Natura International and the Natural History Museum in Paris entitled "Our Planet Revisited", we identified the case of the dry forests of eastern Africa — especially those of the Hotspot identified by conservation biologists entitled "The Coastal Forests of Eastern Africa". This is one of the 34 'hotspots' in the list produced by the NGO Conservation International, which has become the roadmap followed by a majority in the conservation community as well as by many policymakers.

The Coastal Forests of Eastern Africa

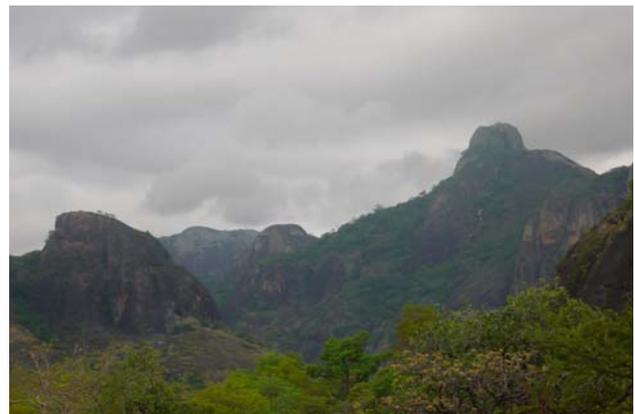
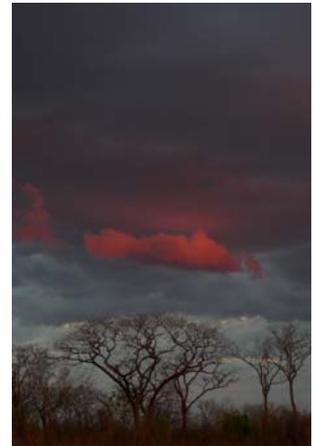
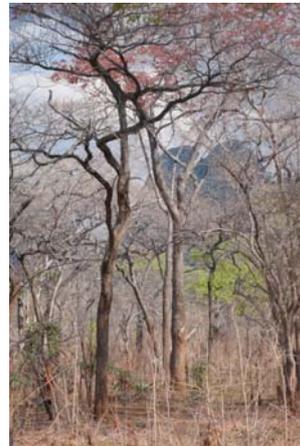
The dry forests along the Eastern African coast (Kenya, Tanzania and Mozambique) are particularly threatened by their geographical location and economic context of the countries where they are found. Their urgent need of conservation is recognized by the international conservation movement. These forests are now part of the 25 global priority sites for forest conservation and are ranked in the top 10 most endangered ecosystems on the African continent. There are probably few places in the world where conservation issues and the difficulties of achieving a realistic level of protection combine to such a large extent.

In Mozambique, the dry Coastal Forests offer a paradox: although they are thought to comprise the largest remaining extent of the Coastal Forests of Eastern Africa they are also the least known biologically. Mozambique was thus an obvious destination for our initiative.

The return of the 2009 expedition

The 51 participants of the expedition returned safe and sound (or almost). No major incidents to mourn during this expedition which is better described in terms of distance travelled (100,000 km accumulated by 12 vehicles) rather than in terms of time spent in the field (6 weeks).

The plan ran to the letter and the schedule to the



day. It would be tedious to detail all the trips back and forth and the different camps in the province of Cabo Delgado (northern Mozambique) but the ground cover (in a study area of about 20,000 km²) is in line with forecasts.

This semi-nomadic mode of operation was dictated by the scattering of remaining patches of forest. For the most part, the extent of the forests was hypothetical and one of the objectives of the operation was to better circumscribe the terrain and describe its condition and floristic composition.

Important collections are currently being sorted and their identification will start in the coming days. The plants, separated into different batches of specimens in Maputo late last year, only arrived at Kew Gardens in mid-January, spending a few days in freezers for decontamination. At the time of writing the boxes have just been opened. It will therefore take a bit of time before we have a true understanding of the collections acquired.

On the wildlife side, most effort has focused on insects, a group usually overlooked in land inventories. Identification of this material will take more time than for plants. We are hoping to have, however, for the most important groups, a list of species around June 2010. Reptiles and amphibians should be identified more quickly.

At this stage, the results have hardly been sketched out, but the first impression is that there is less intact forest than originally thought, but that it is consistent with expectations of species richness. As with other dry coastal forests in Tanzania and Kenya, these forests are very fragmented across the landscape (the causes are unclear, but undoubtedly both natural and anthropogenic) and they significantly differ from each other in terms of species composition.

We report new species for science, but more importantly we recorded an exceptional number of trees and shrubs known elsewhere but never declared in Mozambique. It is now rare to find so many unknown plants during an expedition of this kind in the countries of southern or East Africa. These first records for the country will undoubtedly help to formally expand the centre of endemism of Lindi to northern Mozambique, hitherto confined to the region of the same name in southern Tanzania. In other words, this should help to officially designate the area as a centre of major importance for plants.

Long sensed, but never surveyed, the coastal forests of Cabo Delgado now have a tangible existence on the map of Mozambique. Their membership amongst the biodiversity 'hotspots' of coastal forests of East Africa is confirmed and it is hoped that the conservation community will be more interested in them than it has been so far. That interest, however, should occur quickly because their disappearance seems inevitable in the short term if no conservation measure is taken.

