

# Mountain mission

To aid conservation efforts, a Kew-led expedition recently headed to one of Mozambique's most important montane regions. **Jonathan Timberlake** reports on what they found

PHOTOGRAPHS BY ANDREW McROBB

Relatively little is known about Mozambique in biological terms. Although its coastal forests are recognised for the richness and rarity of their species, the vast northern interior, with its miombo (*Brachystegia*) and similar woodlands, scattered massifs and spectacular, iconic, bald granite domes, is home to a number of endemic species, but the area has been little studied.

After Mozambique gained independence in 1975, the Portuguese colonists departed, leaving the country with very few trained scientists. A protracted civil war followed independence, however now that peace has been restored, there is a move towards rapid development. This offers a window of opportunity for conservationists to identify areas of biological interest and try to put conservation measures in place before resource extraction and new settlements reduce the

options. However, the capacity of Mozambican institutions and technical staff to carry out such studies is still very limited.

These problems are being addressed by a project that focuses specifically on the montane massifs of northern Mozambique. The project, led by Kew and funded under a UK Darwin Initiative grant, was developed by building on Kew's Millennium Seed Bank experience in Malawi; the conservation experiences of the Mulanje Mountain Conservation Trust on a similar massif in southern Malawi; and my own experiences of living in Mozambique in the 1980s and my involvement in numerous botanical projects there since.

The project seeks to enhance the capacity of institutions and fieldworkers in Mozambique and Malawi to carry out biological surveys and assessments. The hope is that local biologists will then be able to

use this knowledge to promote and publicise conservation issues in development planning. As well as providing training, a series of field expeditions made up of botanists and ornithologists from the UK, Mozambique and Malawi is looking at rare, threatened and endemic plant and bird species across five montane areas – the Chiperone, Cucuteia, Inago, Mabu and Namuli mountains.

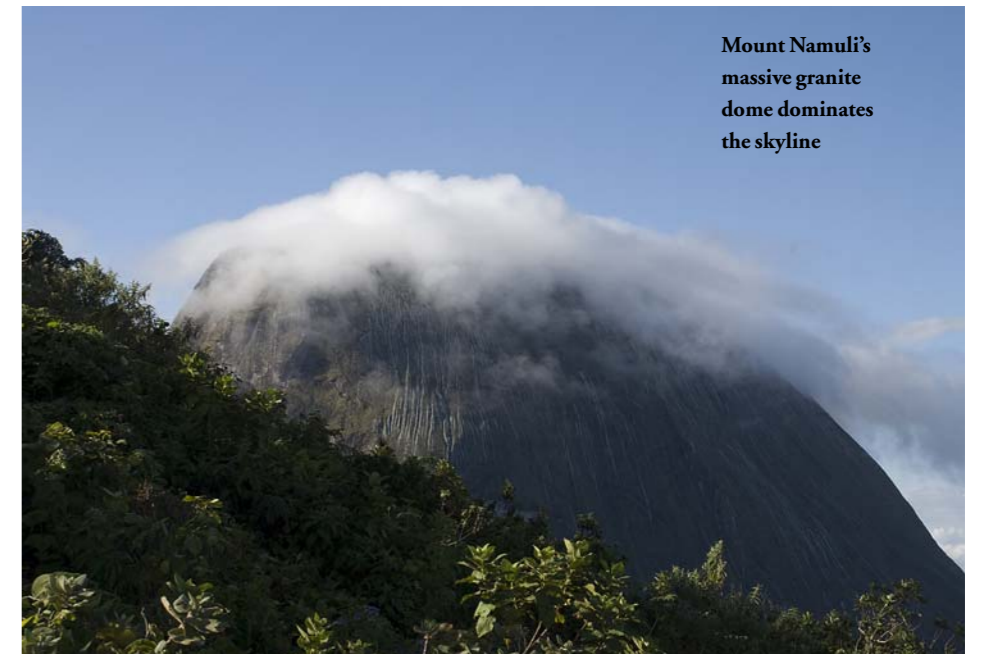
In mid-2007, Kew led an expedition to Mount Namuli, the largest and perhaps best known of these massifs, lying near Gurué, a small town that was once Mozambique's tea capital. Even now, it is surrounded by overgrown plantations and has a sort of Wild West atmosphere as roads, factories and shops are redeveloped. The whole area is very scenic, with tall, narrow, white-streaming waterfalls, a series of magnificent, towering, bald granite domes rising to 2,400m, and an upland grassland

plateau at 1,800m. However, settlement and fields are encroaching on the lower eastern slopes of the mountain, and to the west extensive areas of tea plantation are being restored, although the grasslands and forests up on the plateau remain more or less intact.

But we were not the first to be intrigued by the scenery. In 1885, the Royal Geographical Society sent Joseph Last, a geographer, to investigate this area. Spurred on by early reports of a snow-capped mountain in the interior, he spent more than a year travelling across the area on foot with native porters and wrote a graphic and detailed account of his travels. His main objective was Mount Namuli, and here he collected more than a hundred plant specimens, many of which are now in Kew's Herbarium.

In 1931, the Society funded another trip to the interior of northern Mozambique. Accounts of this trip by ornithologist Jack

Despite poor weather, Jonathan Timberlake surveys the montane forest vegetation



Mount Namuli's massive granite dome dominates the skyline



The expedition heads up to the plateau through low cloud that lasts for the entire first week



With vibrant flowers and jagged leaves, this aloe stands out among the tussocks of grass



When the vehicles can go no further, local porters are employed to carry the equipment



Repairs have to be made to many of the log bridges before any cars can cross

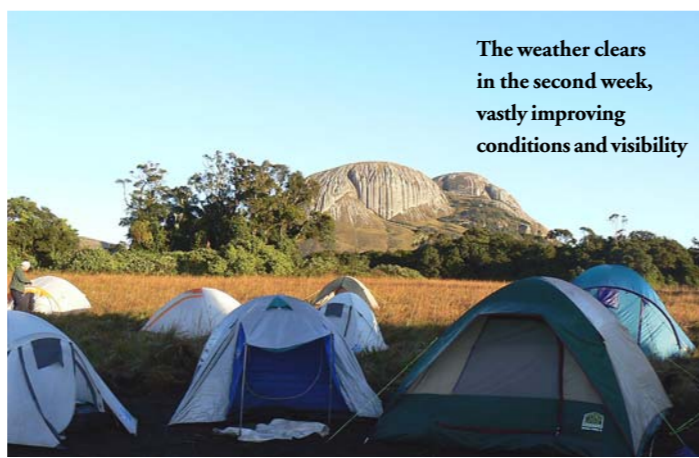
Aurelio Banze and Tim Harris record the exact location of a collection using GPS



ADDITIONAL PHOTOGRAPHS: JULIAN BAYLIS, CLAIRE SPOTTISWOODE



*Helichrysum sulphureofuscum* is found in montane grassland above 1,600m



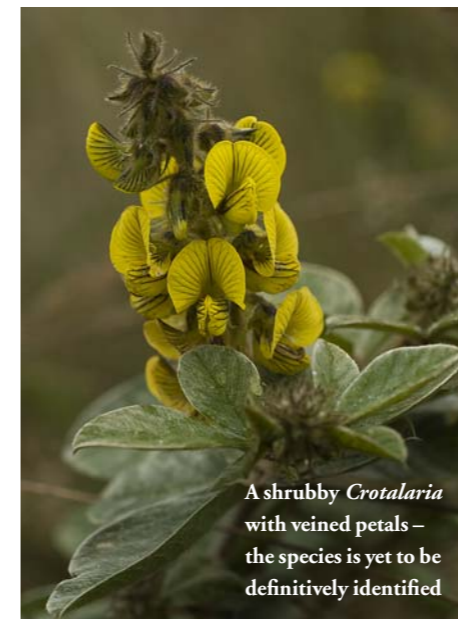
The weather clears in the second week, vastly improving conditions and visibility



The exquisite feathery flower of a creeping form of Commelinaceae



Left: ground-hugging *Crassula setulosa* reaches just 22cm tall and favours rocky sites Above: the Namuli apalis (*Apalis lynesii*) is found only around Mount Namuli



A shrubby *Crotalaria* with veined petals – the species is yet to be definitively identified



*Streptocarpus goetzei* grows on shady rock overhangs or even mossy tree branches

found about 1,200 hectares of montane forest, much of it hidden in folds in the plateau. We are still identifying the collections – mostly plants, but also some reptiles, small mammals and butterflies. Undoubtedly we have collected some of the eight known endemic plants, and possibly some new ones, and a number of new records for northern Mozambique. We also seem to have found a new *Satyridae* butterfly and a new species of dwarf chameleon (*Rbampholeon*).

In light of its conservation importance, we plan to revisit the mountain soon at a different time of year to build on the initial findings. The late dry season is a much better time for bird recording, so the ornithologists can assess the population status of some of the 'specials', including the small black-and-yellow Namuli apalis, Mozambique's only endemic bird and a conservation flagship species. Hopefully many of the grassland orchids will be in flower too, and the drier weather should mean we can climb some of the peaks and move further afield. Meanwhile, our Mozambican colleagues are starting to call for some form of conservation action at district, provincial and national levels to help keep intact what many regard as one of the most important montane areas in the country. 🌿

*Jonathan Timberlake is one of Kew's Drylands Africa experts*

*In Mozambique, the main institutions involved in the project are the National Agronomic Research Institute, which houses the National Herbarium, and the Maputo Natural History Museum. In Malawi, apart from the Mulanje Mountain Conservation Trust (the project's host institution), both the Forest Research Institute of Malawi and the National Herbarium are involved. The UK partners are BirdLife International and Kew*

Vincent from the Natural History Museum, detailing regular encounters with man-eating lions, areas ravaged by disease, falling through log bridges in his converted truck, and selective bird collecting by means of a shotgun and skinner, make wonderful reading and paint a very different picture from present-day scientific expeditions.

Vincent's photographs from Mount Namuli, where he spent more than a month, show it to be little changed from what we see today, although the extensive forest areas he describes lower down have mostly gone.

Our introduction to the peaks was a series of rotten log bridges that we had to repair before crossing – until progress was stopped by one that needed more attention than we could handle. From this point, the 17 expedition members, together with 48 local porters, climbed for hours to the cold, wet plateau with plant presses and dryers,

camping gear and supplies for two weeks. The weather was abysmal for the entire first week – almost continuous low cloud made everything wet and reduced visibility to 20m.

Plant collecting was often only possible for a few hours a day, and the ornithologists found bird-spotting unrewarding. Plant drying was particularly tricky in the perpetually damp conditions, until we rigged up a closed tent with charcoal burners going 24 hours a day. However, when the cloud lifted we got tantalising views of smooth, rounded, bare rock faces and gullies rising above the camp and glinting with moisture, but walking across the tussock grasslands on black peat, with numerous knee-deep water-filled holes for the unwary, made accessibility deceptive.

By the second week, the weather improved dramatically and we could get into the swing of collecting – different small groups going out to different localities each day. We