Grasses dominate the highest reaches of the Auas Mountain chain.

A biodiversity treasure trove

Text and photos by Antje Burke

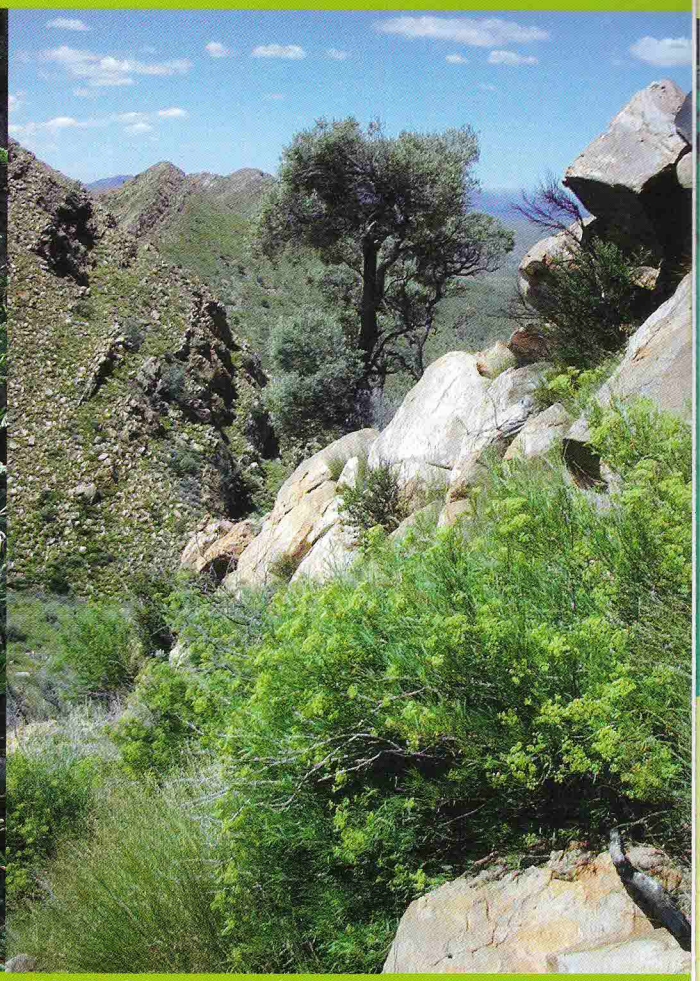
Namibia's prime savannah mountain range provides a glimpse into the past. Over the last 20 000 years, winter rains were sometimes more frequent than they are today, at other times the climate was more tropical. Today an interesting mix of plants from these different climatic periods persevere in the Auas Mountains, the second-highest mountain range in Namibia, and right on Windhoek's doorstep.

A fresh breeze blows through the valley and we enjoy watching the changing light at the top of Namibia's second highest mountain, now bathed in sunlight. We are climbing swiftly, enjoying the cool in the shade and the fresh breeze. But not for long – the sun will catch up with us any minute. As the day warms up and the slopes become steeper, our pace decelerates and our progress up the magnificent Auas mountain range south east of Windhoek slows down.

It is not only the temperature and altitude that are responsible for our slow progress, but also the sheer diversity and many new sightings of plants that await us around every corner – more and more of them, the higher we climb. They all need to be recorded, while some must be sampled and photographed, and this keeps us busy during our survey of the plant life of the Auas Mountains.

It is fascinating to observe the change from thornbush-dominated highland savannah to shrubland with more camphor bush and other broad-leaved shrubs and the eventual dominance of high-altitude grasses, similar to those found in the Drakensberg and other

*Red grass (*Themeda triandra*) is one of the most important components of the grasslands in eastern South Africa.*



*Wild olive (*Olea europaea*) and the parsley bush (*Heteromorpha papillosa*) (foreground).*

on Windhoek's doorstep

highland areas in South Africa. But the changes are gradual and not as distinct as the zonal arrangements of fir and spruce forests, grassland and shrubland that one encounters in high altitude mountains elsewhere, such as in the Alps and Rocky Mountains.

Paying attention to the finer detail, however, pays off. As we ascend through the mountain thorn- (*Acacia hereroensis*) and camphor bush- (*Tarchonanthus camphoratus*) dominated veld, we are rewarded with sightings of pretty flowers, remarkable adaptations and odd specks of every imaginable colour provided by a variety of bulbs. Two of the bulb species, *Haemanthus avasmontanus* and *Lapeirousia avasmontana*, occur nowhere else in the world and are restricted to this mountain range. Others are also found on mountaintops in Southern Africa and along the escarpment elsewhere in Namibia or on the plains in the south.

Fire is a destructive, but also invigorating force in this highland savannah, not sparing the mountains. Many of the plants growing here are well adapted to cope with the occasional onslaught by flames. Bulbs remain underground, grasses keep their growth points as close as possible to the ground and many of the trees and shrubs have fire-resistant barks.

At an altitude of about 2 200 metres, the change in vegetation becomes more visible. Now there are many new plants that we've not seen in the lower reaches. Tall wild olives (*Olea europaea*) with their silvery foliage catch our eye, barkbush (*Osyris lanceolata*) dot the mountain slopes and the conspicuous yellow-flowered, straggly euryops bushes (*Euryops subcarnosus*), typical of mountain areas in the Cape and the Namibian escarpment, occur on some of the cooler, south-facing slopes. Further up the slopes the grey-white snakebush (*Stoebe plumosa*), a blue-green

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The lovely bulb Babiana hypogea *occurs in scattered localities throughout Southern Africa's savannah regions.*

succulent shrub (*Lopholaena cneorifolia*) and the blue-flowered *Heliophila carnosa* are evident links to the Cape's winter-rain flora. *Stoebe*, for example, is a typical fynbos plant and grows on Table Mountain and many other mountain areas in the fynbos region.

Lopholaena and *Heliophila* also grow in the mountains of Namibia's Succulent Karoo areas, such as in the Sperrgebiet. The grasses here are also different. Pockets of red grass (*Themeda triandra*) and narrow-leaved turpentine grass (*Cymbopogon pospischilii*) occur in the matrix of kliphawer (*Danthoniopsis ramosa*), finger grass (*Digitaria eriantha*) and mountain love-grass (*Eragrostis scopelophila*).

Equally interesting are plants from savannah areas that receive higher rainfall, such as the unusual grass *Tristachya* and the sedge *Cyperus margaritaceus*. Are these remnants from a time when the Windhoek area also received higher rainfall? Or did they establish colonies in the Auas Mountains by chance, during a single colonisation event? Today the mountains provide a microclimate favourable for both: winter-rain as well as savannah plants. It remains to be seen whether environmental changes will leave this unique and diverse assemblage of Namibian flora unharmed.

Other than these global impacts, which are largely out of our hands, wise management of the Auas

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The highest peaks have yet more exciting discoveries waiting for us. Amongst the variety of tiny succulents, mainly crassulas, we find the endemic Auas midday flower (*Ebracteola montis-moltkei*), a compact succulent with lovely pink flowers which is restricted to the upper reaches of the mountain chain. This plant has one of the most restricted ranges in Namibia. Three more plants are currently known to occur only in the Auas mountain range, a woody herb and the two above-mentioned bulbs, making the mountains a very special place hosting at least four endemic species.

Mountains is an imperative. Not only does the rich and unique natural heritage deserve protection, but the mountains are also Windhoek's prime water reservoir. This in itself is a good reason for effective and integrated management involving the town's inhabitants, landowners and conservation institutions.

An altitude change of only about 800 metres takes us into a small sample of the Cape floral kingdom – almost 1 000 km away from its northern-most boundary. Windhoek's unmistakable landmark is hence very special, in many more ways than one.