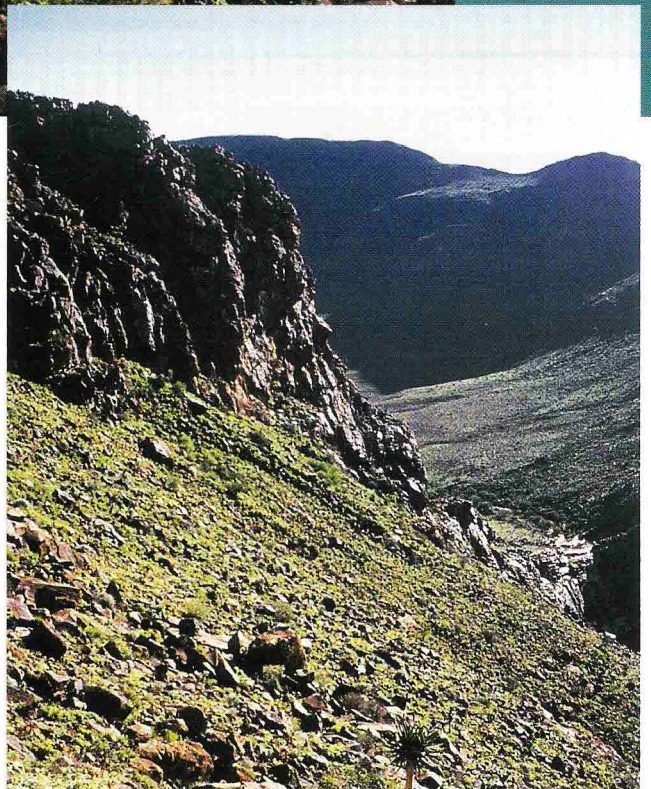


PHOTOGRAPHS BY A. &amp; J. BURKE

# An eruption of green

Rising majestically above its surroundings, the Brukkaros Mountain forms a prominent feature in the vast, open plains of Namaland in southern Namibia. For some 100 kilometres in every direction the only mountainous habitat of this magnitude raises expectations of interesting plant and animal life, perhaps some restricted to the mountain. We set out to find out whether or not one can call the Brukkaros Mountain an isolated outpost of biological diversity.

There is hardly any mountain in Namibia that suggests volcanic activity as plainly as the Brukkaros.



The Brukkaros Mountain springs to life





**Above:** Rising majestically above its surrounding, the Brukkaros Mountain forms a prominent feature in the vast, open plains of Namibia's Namaland.

**Page 37 top:** Large stands of Quiver tree (*Aloe dichotoma*) cover the west-facing slopes of the mountain.

**Page 37 bottom:** A hiker's paradise – the normally barren slopes of the Brukkaros crater are covered in a green blanket after good rains.

Steep slopes form a typical crater and rise up to about 600 metres above the surrounding plains. The central part of the mountain is bowl shaped with only one exit to the south, where occasional rains fill a steep river

at the surface associated with the release of steam and water from the broiling magma inside the central part of the earth mantle. All this happened some 80 million years ago and a subsequent collapse of the central part

cascading over boulders and rocks and eventually draining into a network of pans and rivulets that feeds the Fish River. Yet the textbook volcano has puzzled geologists for a long time for one simple reason: no volcanic rocks were ever found at the mountain or in its immediate surroundings. Only recently has this mystery been resolved. The mountain is now, in simple terms, considered a volcano that got stuck in the earth's crust. Although melted rock or magma never appeared at the surface, the mountain was created by magma pushing up the earth's crust from beneath and an explosion

of the mountain, formation of a lake and many, many years of erosion created the “pseudo volcano” we see today.

Besides its interesting geology the mountain has attracted many scientists over the last decade. The most adventurous for its day and age was probably an expedition jointly organised by the National Geographic Society and the Smithsonian Institute in the 1930s to erect a solar radiation observatory. Under much hardship, the scientists were based near the top of the crater for three subsequent years and called a little corrugated iron hut their home. The hut is still there today, and the only access track to the crater was created in those days.

So what did we expect to discover? Mountains of impressive age, isolated from similar habitats for long distances occasionally harbour species confined to this particular mountain. The much larger Brandberg to the north is a good example, where several plant species are endemic to the mountain and new species of endemic insects are discovered every time the scientists take a closer look. We appreciated that the Brukkaros is by magnitudes smaller and adapted our expectations accordingly. Our main objective was to catalogue the plant diversity of the mountain and its relationship to the surrounding plains. This research formed part of the larger project that investigates the role inselbergs, or isolated mountains, could play as sanctuaries of plants of conservation importance, either as sources for re-

colonising degraded lands in the area or providing habitat for species threatened elsewhere.

The Brukkaros Mountain sits in the heart of Namibia's Nama Karoo, which typically receives summer rainfall. It is shrub country with a sparse covering of the low driedoring (*Rhizogum trichotomum*) and somewhat taller trumpet thorn (*Catophractes alexandri*), with denser patches of water thorn (*Acacia nebrowonii*) in occasional depressions and drainage lines. The shrublands cannot boast high diversity, but where habitats are more diverse and different substrates have some influence, a more varied flora can be expected. The escarpment to the west of Brukkaros, for example, is home to a diverse flora with many species restricted to Namibia's escarpment.

After many successively dry years, when the weather bureau reported unusual rains in the south, we decided that the Brukkaros deserved a visit. Unexpectedly it turned into an exciting trip. Rather than following the B1 main road to the south and taking the easy access via Berseba, we had chosen to approach the mountain from the northwest on lesser-known back roads. Several flowing rivers stopped fast progress and it eventually took us several days and many detours to get to our destination. A well-maintained gravel road led to the main access to the mountain from the south. The last part, however, can only be negotiated with a 4x4 vehicle and was washed away at the time of our visit.

Well rewarded for our efforts, the usually dry and



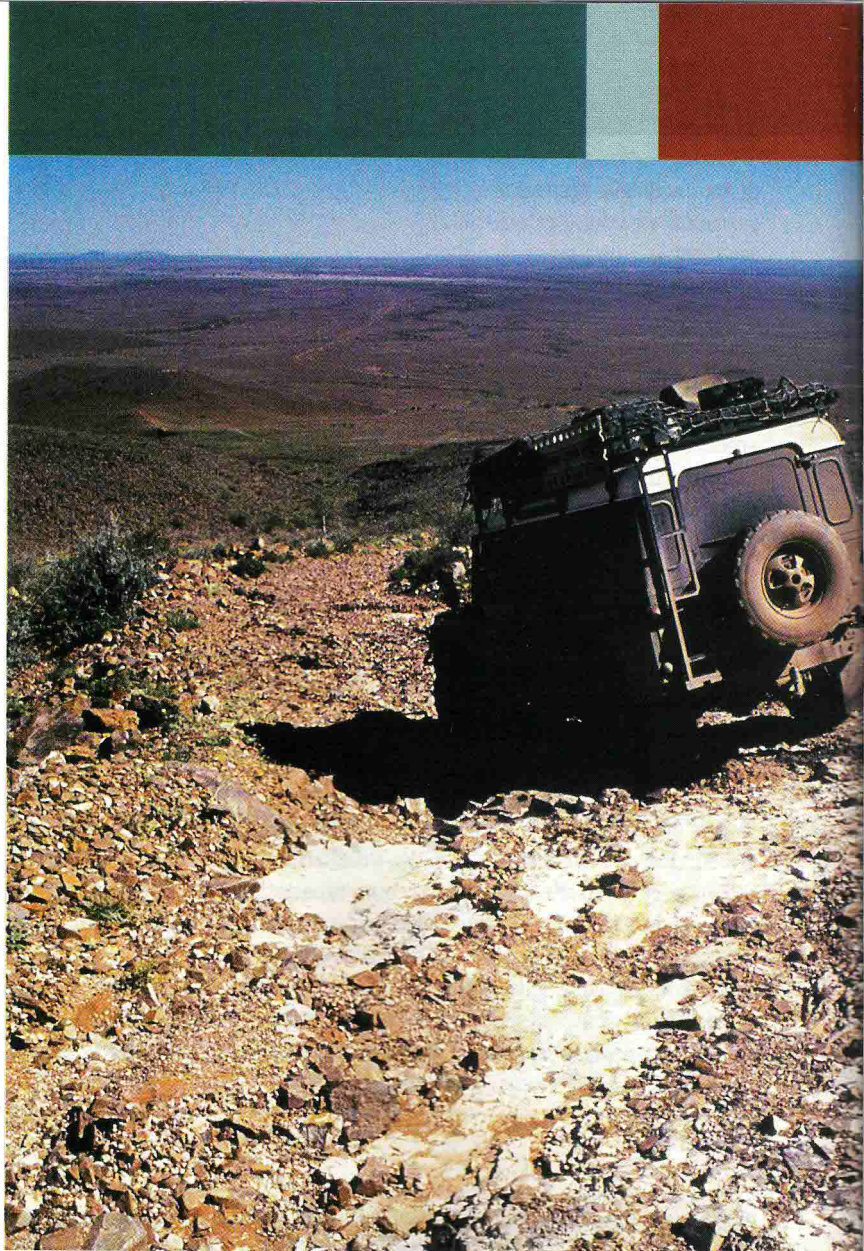
desolate mountain provided a startling sight. A dazzling green blanketed the mountain, and thousands of colourful butterflies, bees, grasshoppers and other insects filled the air. Almost every boulder was occupied by a lizard or agama, one more colourful than the other. This was a promising sight, and with unrelenting vigour we shouldered plant presses, cameras, soil-sampling kits, and lots of water.

We ran several transects across the mountain recording and collecting plant species along the way. We were not disappointed. Although no single plant could be found that was endemic to the mountain only, a great number of Namibia endemics, such as *Monechma grandiflora*, and a fairly diverse flora compared to the area made the expedition worthwhile. The more than 200 species recorded, half of which is shared with the surrounding areas, show resemblance with the flora on the western escarpment as well as other mountain habitats further north and south we had investigated on previous expeditions. An interesting and diverse mix of plant species typical of Namibia's Nama Karoo, species characteristic of the escarpment and the desert to the west, such as the stinkbos (*Boscia foetida*) and *Commiphora pyracanthoides* as well as remnants from more humid

periods in the past, all find a home on the mountain. Another remarkable and lovely sight was a healthy stand of Quiver trees (*Aloe dichotoma*) on the western slopes of the mountain. Further analysis of our data will reveal more about the linkages, but the Brukkaros Mountain can certainly be called conservation-worthy. Many species of conservation importance find a sanctuary here, and most of the valuable fodder and grass species of the surrounding plains can also be found on the mountain. These could re-colonise the plains from here, should degradation and droughts threaten their existence on the plains.

Worth mentioning are obviously the magnificent views one can enjoy over the wide open plains once the ridge of the crater has been reached. Tracing the ring of the crater is easy enough once the top has been reached, although one should allow a good, long day for this hike.

Following examples in the mainstream tourism areas, such as Brandberg and Spitzkoppe to the north, the local Nama who eke out a spartan living with small stock



**Above:** Access by vehicle is difficult, particularly after heavy rains have washed away half of the track. A well-maintained gravel road, however, leads to the base of the mountain.

farming in these drought-stricken shrublands have realised the mountain's potential for tourism. The establishment of conservancies is underway, and the community at Berseba is busy erecting a gate and possibly a camping site near the foot of the mountain. Prudent management by the people living in the area is most likely to result in the long-term conservation of this natural asset and we wish the people of Berseba and environs much success with their endeavour.

For those interested to visit this lesser known, remote spot in Namibia's south, follow the main road B1 south of Keetmanshoop. From here follow the "98" until Berseba comes into sight and turn north at the "Brukkaros" signpost. The D3904 takes visitors to a car park from which the mountain can be accessed on foot. It's best to be fully self-sufficient and bring adequate water, food and camp gear.



by Antje Burke

Flamingo May 2001