



In August last year a group of botanists* set off to explore Namaqualand - that treasure trove of interesting plants especially succulents and bulbs - which probably ranks as the world's most diverse desert. There were three aims to the expedition: to visit areas that are not botanically well known, to involve young and interested botanists in the study of the flora and to meet and share knowledge with people from the region.

NAMAQUALAND

JOURNEY OF DISCOVERY

The 1999 Institute for Plant Conservation and National Geographic Expedition.

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The ability to recognize plant species in the Cape Floristic Kingdom, of which Namaqualand is a part, is not easy. Successful conservation of the region's flora relies very much on the ability of people to correctly identify plants when necessary. There is a need to nurture young botanists who are committed to learning the region's flora. This expedition provided an opportunity for the participants* to interact and gain valuable field experience.

Meeting the landowners and residents of the region was a key component of the expedition. These people are the present custodians of our flora and helping people understand how important their natural heritage is, is the first step towards conservation of this country's biodiversity. Articles in the popular press generated a lot of interest with the broader public and helped draw attention to the region's unique flora. This increased interest can have longer-term benefits for conservation such as

Above. *Cheiridopsis peculiaris* camouflaged amongst rocks near Steinkopf. Left. *Meyerophytum globosum* is endemic to the Riethuis quartz patches. Photos: Philip Desmet.



A very unusual geophyte, *Eriospermum titanopsoides* glistening in the sunlight under a shrub in the northern Knersvlakte.

Photo: Philip Desmet.

through the expansion of the nature-based tourism industry. This is currently seen as one of the major mechanisms for promoting conservation-friendly land-use practices here, and one of the few real economic prospects for the region.

The expedition visited areas throughout Namaqualand from the Knersvlakte in the south to the Richtersveld in the north; from the coast in the west as far inland as Aggeneys in Bushmanland. The weather certainly challenged our powers of endurance. From berg winds with temperatures in excess of 35 °C on the Knersvlakte, we were plunged two days later into sub-zero temperatures with a thick blanket of snow at Leliefontein (see cover photo). Two days later with the approach of another front, the berg winds once again sent the temperatures soaring. Certainly last spring was the most variable and testing I have ever experienced in Namaqualand, but this did not dampen the enthusiasm of the participants.

The testing weather conditions could not detract from what we discovered along the way. Highlights of the expedition were the discovery of new or little known plants. Amongst the half dozen such finds, the most exciting was the discovery of *Conophytum 'mirabile'*, a tiny fuzzy vygie, near Springbok. Steve Hammer, our succulent guru from the Spaeeroid Institute in California, had been shown a picture of this strange *Conophytum* many years back by a British collector, and he immediately recognized something new. The British collector, however, never described the plant and subsequently the photographed plant disappeared into obscurity. Many years were spent searching Namaqualand for this plant to no avail. Lots of detective work later and Steve's



The new *Cheiridopsis* species found near *Conophytum 'mirabile'* in the Springbok area. The plants are almost completely in the shade of deep cracks. Photo: Philip Desmet.

hunch eventually proved correct as we discovered this beauty nestled in cracks on sun-baked rocks. What a find!

To our surprise we also stumbled across a new species of *Cheiridopsis* (another vygie) at this same locality. Quite a remarkable plant. The neat clumps lie nestled under small rock overhangs, never exposed to the sun. The brilliant yellow flowers need to be in direct sunlight to attract pollinators. Consequently the pedicel elongates anywhere up to 15 cm long depending on the plant's location under the overhang relative to where the flowers should be to catch the sun. The result is a hillside peppered with yellow flowers all neatly facing the sun, but without a single plant visible.



An exciting new discovery, *Conophytum 'mirabile'*, a tiny fuzzy vygie, near Springbok. Photo: Philip Desmet.

Another interesting find was the re-discovery of '*Moraea ovata*' in the heuweltjie veld of the northern Knersvlakte. This strange geophyte was first collected by Francis Masson in the 1790s and described as '*Moraea ovata*'. The only other known collection comes from Annelise le Roux of Cape Nature Conservation who collected the plant in 1995 from a farm near Skilpad. When John Manning and Peter Goldblatt, who could not be with us, heard we were heading in that direction we were given explicit



Above. *Diplosoma luckhoffii*, the strawberries of the Knersvlakte!
Below. Vygies paint this northern Knersvlakte landscape.

Photo: Philip Desmet.

instructions to keep our eyes peeled for this mysterious plant that had for many years eluded their collection. Although the series of overlapping boat-shaped leaves is very distinct, both existing collections lacked flowering material. Naturally this lead to the uncertainty surrounding the plant's identity. When totally by accident we stumbled, quite literally, across the plant in the Knersvlakte 200 km south-east of where it was last collected, the source of their confusion was revealed - '*Moraea ovata*' is actually a dwarf species of *Ferraria*!

Recently, Peter and John were on the blower to me again, this time with a totally new discovery. Evidently we picked up a new species of *Romulea* ('*R. maculata*') on a mountain in the northern Knersvlakte. This very large, white-flowered geophyte is distinguished by its speckled cataphyls

and is a close relative of the magenta-flowered *R. neglecta* from the Kamiesberg. This was not the only new geophyte we found. We also picked up a small white-flowered *Hesperantha* near Aggeneys. I suspect that as we work through the 360 specimens we collected on the expedition we will be making many more exciting discoveries.

We were also privileged to visit some very special places. Two that have etched themselves in my mind are Fyftien-Myl-se-Berg near Port Nolloth and the Gamsberg just east of Aggeneys in northern Bushmanland. Fyftien-Myl-se-Berg is a Vatican-equivalent for mesembryanthemologists and succulentophiles. Very few places in the Succulent Karoo are so jam-packed with interesting plants. The fascinating diversity of plants is due partly to the diversity of unique habitats at this site created by the combination of the cool Atlantic sea-breeze, frequent fog that shrouds the mountain and quartzite rock. Amongst our many interesting finds was a new population of *Mitrophyllum roseum*, a plant thought to be close to extinction! The South African National Park currently owns the northern section of this mountain. Consequently the veld has been rested for many years and is in an excellent condition making plant watching a very rewarding experience - no sheep or goats to get to the plants before you. I am sure many will agree with me that this site certainly warrants being elevated to full National Park status at some stage in the future.

The Gamsberg is another very special place. Like a ship on the open ocean, it 'sails' across the flat sandy plains of northern Bushmanland drawing the inquisitive traveller in for a closer look. The brilliant white quartzite is like none other I have seen elsewhere in



Namaqualand. At times one gets the impression that the mountain is just pure quartz crystals. Its stark location and brilliant white rocks give an air of mystery or purity that is truly captivating. From forests of kokerbooms to button-like dwarf succulents hidden between quartz pebbles, the mountain is endowed with many interesting and some very rare plants, and like a true island, forms an outpost of winter rainfall Succulent Karoo vegetation deep within the summer rainfall Nama Karoo. This inselberg is owned by Anglo American and like the northern part of Fyfien-Myl-se-Berg has also remained 'livestock-free' for a number of years. One is able to approach within meters of the klipspringer that inhabit the slopes and volcano-like crater in the middle of the inselberg, testimony to the absence of human intrusion.

Nowhere have I mentioned the plants that people generally think of when you mention Namaqualand to them - the annual flower displays. The drought conditions last year played havoc with the spring-flowering annuals. Only at Skilpad, now part of the Namaqua National Park, and in the sandveld along the coast did we experience the postcard carpets of flowers. In fact we were quite surprised at how good it was in these places. We were, however, privileged to witness the most spectacular displays of vygie flowers we have ever seen. Steve, one of the expedition's more experienced participants, has visited Namaqualand every year, sometimes twice, for the last twenty-five years! He said he had never seen such brilliant displays. Probably the best display was in the camel thorn 'forest' west of Komaggas where the ground between the shrubs and trees was tuned an iridescent red by the expansive carpet of



Lachenalia zebra in the sandveld near Riethuis. Photo: Philip Desmet.
Below. All eyes down. The expeditioners admire conophytums on top of the Gamsberg. Photo: Nick Helme.





Members of the Paulshoek community, huddled in the shelter of the kookskerm, prepare the evening meal around the braai. Photo: Nick Helme.

Livingstone daisies (*Dorotheanthus bellidiformis*). Truly a remarkable sight.

The unsurpassed botanizing was accompanied back at camp by some of the finest hospitality Namaqualand has to offer. We did not stay in hotels or formal accommodation but opted to camp in farmers' back gardens, using their sheds as office space to process the days collections, or camp in community camp sites such as at Paulshoek and Lekkersing. At Soebatsfontein we were given permission from the South African National Parks to camp under the date palms at a bubbling fresh-water spring called Kookfontein. This farm, purchased with funds from the Leslie Hill Succulent Karoo Trust, was recently included in the newly proclaimed Namaqua National Park. Only at our final port of call in Aggeneys were we afforded hot showers as guests of the Black Mountain Mine and allowed to stay in a mine guest house for the duration of our visit.

At each campsite I had arranged, in advance, with the respective farmer or community to organize a braai for the expedition. These turned out to be an experience worthy of their own article. Six braais with six groups of people straddling the entire cultural spectrum that Namaqualand has to offer, diamond smugglers excluded. Incredibly, at each braai we were served the same fine Namaqualander-fare – boerewors, 'tjops' and 'roosterbrood'. Namaqualand is really about sheep and goats and we tasted some of the best the territory has to offer, prepared and served each time in the same quintessential manner over the fire no matter what the social or cultural background. Greenery in the desert is rare, and for the vegetarians meals at these braais consisted of extra 'roosterbrood' (bread rolls baked on the grid over the open fire) with double helpings of sousboontjie or beetroot salad. There is a standing joke in Namaqualand that when confronted by a

vegetarian they remark – 'Oh well in that case we will have to bring out the pork then.'

Culinary experiences aside, the braais were a fantastic opportunity to chat to people and hopefully give them some insight as to why city folk are so hung up on their plants. These experiences make the trip sound like a holiday. It was actually quite hard work, but then it is nice to find on arriving at work in the morning that the 'office' floor has been carpeted with flowers.

The expedition was a great success. All the

participants thoroughly enjoyed the experience and learnt much about this wonderful corner of our land. Amazingly, we suffered not a single technical hitch. With over 10 000 kilometers travelled by the combined vehicles we did not have a single puncture! However, the expedition would not have been the success it was were it not for the generous support of the sponsors* and the warm welcome and hospitality of the farmers and the local communities of Paulshoek, Soebatsfontein and Lekkersing where we stayed. Given the achievements of the expedition and positive feedback from the participants, we look forward to organizing another expedition in the near future. ■

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*Thanks to the sponsors of the expedition

The group of fifteen botanists, from three countries (SA, U.S.A. and Germany) representing different organizations (the Institute for Plant Conservation, University of Cape Town, the Bolus Herbarium in Cape Town, the University of Cologne in Germany, the Spaeroid Institute in the USA, MacGregor Museum in Kimberly and Cape Nature Conservation) were given the opportunity to travel together and learn from one another thanks to the Institute for Plant Conservation (IPC), the National Geographic Society and Mazda Wildlife. In 1998, National Geographic gave the IPC at the University of Cape Town a research grant for 'exploration research' in the Succulent Karoo and this was used to fund the plant collecting expedition to Namaqualand, undoubtedly one of South Africa's botanical crown jewels. Unfortunately the invited participants from the National Botanical Institute, Northern Cape Nature Conservation and South African National Parks were unable to join the expedition.