When east meets west

RALPH PECKOVER DISCUSSES *CEROPEGIA MAFEKINGENSIS*, A RARE BUT WIDESPREAD SPECIES. *PHOTOGRAPHY BY THE AUTHOR.*

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For collectors and researchers interested in the Family Asclepiadaceae it remains a challenge to find those elusive species which have been collected only occasionally, or even, in some cases, just once. One such plant, which has been collected only very occasionally, and which is also strange in both vegetative and floral characteristics, is *Ceropegia mafekingensis*.

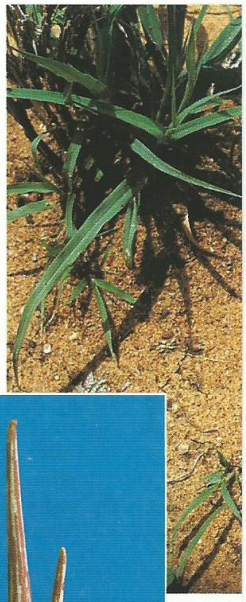
This plant was described by N. E. Brown at the beginning of the century as *Brachystelma mafekingensis* from a plant collected near the town of Mafeking (now known as Mafikeng). In 1977, after studying the flower structure, R. A. Dyer transferred it to *Ceropegia*. When not in flower this species is certainly very *Brachystelma*-like, as confirmed by my first sighting of it in habitat at Platveld in Namibia. It grows as a dwarf, perennial herb with a tuber up to 10cm diameter and 4cm thick. Stems are single, branching above ground, up to 8cm high, covered in fine hair. Leaves are ovate, from 4cm long and 2cm wide (Platveld population) to 8cm x 1cm (Botswana and Klaserie populations), with undulate edges, finely pubescent only on the underside. Up to 50 flowers are produced in each cluster, mostly opening simultaneously; the corolla is up to 15mm long, divided half way to form a tube and 5 free, black, warty corolla lobes; the tube is whitish and bottle-shaped. Seed capsules are upright, greenish with red mottling, very similar in both size and colour to those of *Brachystelma brevipedicellatum*.

C. mafekingensis is unusual in its very wide distribution throughout southern Africa, and in the fact that the character of the plants varies little from one population to the next. It is also unusual that it should be placed in *Ceropegia*, when most of its characteristics are similar to those of *Brachystelma*, and only the corolla tube is similar to that of *Ceropegia*.

The distribution of this species ranges from the central area of Namibia, through Botswana, to the lowveld areas in Mpumalanga (formerly eastern Transvaal), e.g. at Klaserie, near the Kruger National Park, a distance of around 1,500km. Previous collections of this species appear to have been of single plants, giving the impression that the species is very rare locally, but distributed over a wide area. I too was under this impression, until a trip to Botswana was undertaken with Peter Bruyns, a fellow asclepiad enthusiast. I joined Peter on the first weekend of December 1995 in Gaborone and we first drove to Molepolole to look at some asclepiads which I had found there previously. These included *Orbeopsis knobelii*, *Ceropegia lugardiae*, *Brachystelma arnotii* and *B. cupulatum*, along with *Euphorbia duseimata*.

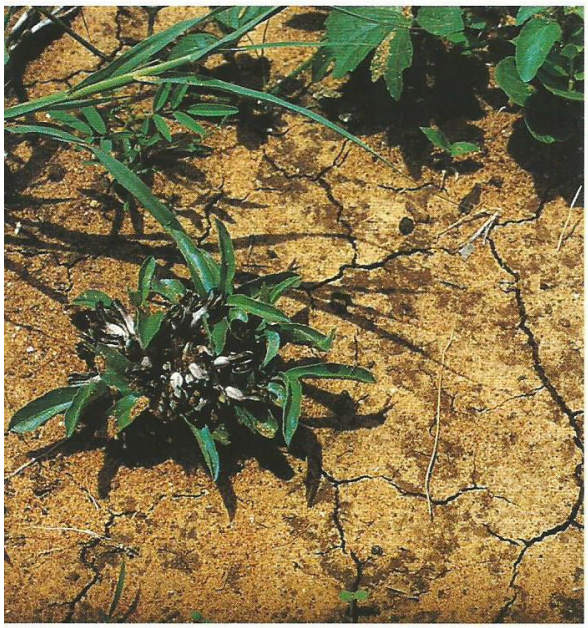
The soil just outside Molepolole changes abruptly from reddish, sandy loam to yellowish Kalahari sand, in which trees such as *Terminalia sericea*, *Peltophorum africanum* and other low-veld trees abound. The almost pure sand is highly leached of plant nutrients and there is very little grass cover; the local vegetation consists of sourveld species. A storm was rapidly approaching and we just had time to pitch our tents before a torrential downpour was upon us.

The next day we drove back to Molepolole and stopped alongside a rocky ridge. At first this ridge did not look at all interesting with scattered bushes and shortish grass, grazed by cattle which roam this area. Suddenly, before my eyes, it was there in all its glory — *Ceropegia mafekingensis*. The plant was only 50mm tall, and in full flower, with its typical blackish flowers; it could easily have been overlooked. I shouted "Eureka", and then began the photographic session. In half an hour nine plants had been found on the ridge, and the total population at this site was probably around 15 plants — possibly the largest population of this species recorded at that time. There were small seedlings as well as mature plants in the area, and the population looked healthy. What was strange about this population was the absence of any other asclepiads. Where ceropegias or



ABOVE: *CEROPEGIA MAFEKINGENSIS* FLOWERING IN HABITAT IN BOTSWANA IN A ROCKY SOIL.

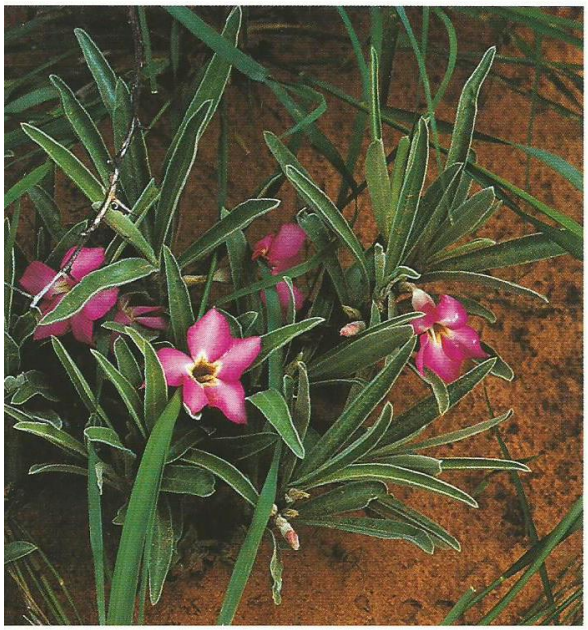
BELOW: *C. MAFEKINGENSIS* – A CLOSE-UP OF THE FLOWERS, THIS PLANT IS FROM THE KLASERIE GAME RESERVE, NEAR THE KRUGER NATIONAL PARK.



ABOVE: *CEROPEGIA MAFEKINGENSIS* IN HABITAT NEAR PLATVELD, NAMIBIA,

LEFT: THE RESULT OF EAST MEETING WEST, SEED CAPSULES ON A PLANT OF *C. MAFEKINGENSIS* FROM NEAR PLATVELD.

BELOW: THE STRIKINGLY VIVID FLOWERS OF *ADENIUM (OBESUM* SUBSP.*) OLEIFOLIUM*,



brachystelmas are found, other plants of this Family, ie orbeas, other stapeliads, raphionacmes, etc are usually also found growing in association with them.

Our journey then proceeded north, and we found *Adenium* (*obesum* subsp.) *oleifolium* and *Brachystelma arnotii* growing in very sandy soils. At this site we almost lost the road and our vehicle after trying to escape another afternoon downpour and this made us aware of how easy it would be to get lost in a Kalahari woodland. Caudiciform plants of the Family Cucurbitaceae were seen clambering up nearby trees and a few ripe seeds were collected to propagate from.

We camped near an almost dried-out pan and scouted the area, observing a few plants of a *Pancratium* species bearing large, singular flowers. The regular afternoon storm developed and we ducked into our tents. The downpour, accompanied by a gale force wind, persisted for an hour, and over 50mm of rain must have fallen during this time. The gale was so strong that I had to keep the one tent pole up with my feet, while pushing with all my might.

The next morning the pan had filled up and was now a lake hundreds of metres in diameter. We packed up camp and passed through a few rural villages. Peter's aim for this trip was to find *Orbea maculata*. Due to the over-grazing near the villages, the natural grass cover is reduced or almost eliminated and is replaced by non-palatable weeds. The areas among the stunted shrubs host a multitude of plants, especially stapeliads, and at one village the following were observed: *Huernia zebrina*, *H. longituba*, *Orbeopsis caudata*, *Orbea maculata*, *Tavaresia barklyi* and *Stapelia kwebensis*. These stapeliads are protected from the harsh summer sun and appear to be immune to the deprivations of the goats. These plants thrive in the conditions found around the villages and will not easily become extinct. At the end of this day we camped again, and as usual it rained that evening, although not as heavily as it had the previous day.

We found a few hours the next morning to do some botanizing, and we found a very pretty form of *Ceropegia nilotica*, with long, yellow, corolla lobes, growing in red, sandy loam and intertwined into the shrubs and trees. A species of *Nerine* with large bunches of flowers was growing in the same area.

We joined the main road to Gaborone at Mahalapye, and this marked the end of a very eventful trip which had yielded a significant habitat locality for *Ceropegia mafekingensis*. However, this was not the end of my search for this elusive species.

After a business trip to Namibia in January 1997, I leased a car and first visited Mrs Charlotte Grabow near Steinhausen, about 150km north-east of Windhoek. On her farm, after a short search, the following plants were found: *Brachystelma stenophyllum*, *B. cupulatum*, and *B. arnotii*, as well as plants in seed of *B. schultzii* (previously called *Tenaris schultzii*). The plants were all found growing in a reddish, sandy loam, usually between the clumps of grass. After this very pleasant visit I drove west to a small stop called Platveld, which is between Otjiwarongo and Otavi. The next morning, I drove again in a westerly direction toward the marble and dolomitic hills. At the first hill, which was marble, *Adenium* (*obesum* subsp.) *boehmianum*, a euphorbia similar to *E. schinzii*, and very pretty, flowering plants of *Tavaresia barklyi* were observed.

The next set of hills I encountered were lower and of dolomitic origin. Here the predominant trees were acacias and combretums. At the base of the ridge, *Caralluma peschii* was seen growing in the shade. *Brachystelma dinteri* was at home in the red, sandy loam and also in the blackish, humic soils higher up the slope. On top of the ridge I observed one of the jewels of the genus *Ceropegia* — *C. dinteri* was growing in the shade of the acacias, and it was in full flower. There were around ten of these plants growing over an area of 30 x 10 metres. Not to be outdone, a favourite *Huernia* species, also in full flower, grew in the shade of these trees. This species is *H. oculata*, with a distinctive white inside to the flower. As if this find was not enough, at a site a few kilometres further on, devoid of grass, a brachystelma-type plant was observed underneath the thorn trees. At first sight the plants resembled the shiny-leaved *B. brevipedicellatum*, but after observing a number of specimens I found one plant growing in the open, which was just coming to the end of its flowering display, and it was clearly *Ceropegia mafekingensis*. This plant was growing in an extremely over-grazed area where *Acacia mellifera* (swarthaak) was developing into an almost impenetrable mass.

One might ask how a rare plant like *C. mafekingensis* could be so prolific in a completely over-grazed field being overgrown by 'swarthaak'. The reason is that many ceropegias and brachystelmas do not flourish where grass is plentiful. An overgrazed area is also ideal for the proliferation of stapeliads and aloes. I gave up counting the specimens of *C. mafekingensis* in the population when I had found 20 plants.

A few plants of *C. mafekingensis* were collected from this locality and brought back into cultivation, and when one flowered in October 1997 it was used to produce seed. A grafted plant of *C. mafekingensis,* which was originally collected at the Klaserie Game Reserve by a researcher now working for the Kruger National Park, flowered at the same time and a few pollinia were used to pollinate the flowers of the plant from Namibia. It was here that East met West, for a distance of at least 1,500km separated the two populations. I am pleased to report that seed capsules were produced. The only apparent difference between the plants from these distant populations is the leaf shape. Plants from Namibia have almost oval leaves which are shiny, while that from Klaserie had linear-lanceolate leaves which arre less shiny. It should be noted that leaf shape is not generally a very consistent character in ceropegias or brachystelmas.

The offspring of this crossing will be observed with interest when hopefully they flower in around three years' time.