

The unusual odd man out – *Macropetalum burchellii*

Ralph Peckover

This monotypic plant of the Stapeliad group is found in rocky as well as sandy areas in various regions in Southern Africa. The plant has been recorded at Bloemfontein on Rayton Ridge (now covered with houses), north of Pretoria near Soutpan, near Hoedspruit in the eastern Transvaal, in Natal near Hluhluwe and there are also records from other areas.

If the veld is not overgrazed or burnt, plants are very difficult to find as they blend in with the natural grass, but if the grass cover is absent, plants are easily seen from a distance. On the smallholding where I reside, after a fire the previous season I counted two dozen plants growing happily, but the previous 12 years I was unaware of their existence. In various areas north of Pretoria, I have encountered numerous plants and they are definitely more common than previously thought.

The plant itself consists of an underground tuber similar to that found in many *Brachystelmas* and *Ceropegias*, a slender aerial stem measuring 30-100 cm in height, which can be single or branched, opposite leaves being 3-10 cm in length and 2-3 mm in width and an internode length of up to 10 cm. The epidermis on stems and leaves can be smooth

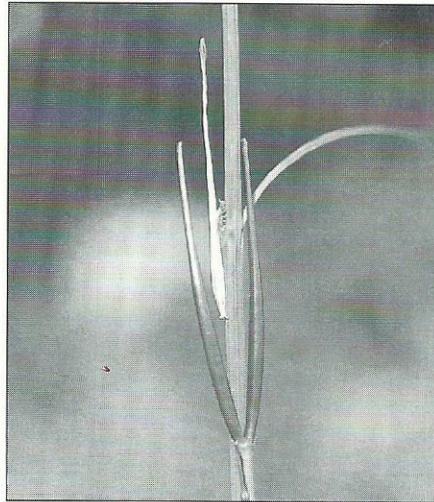


Fig. 2. Part of the stem showing the cylindrical flowers and emerging seed capsules of *M. burchellii*.

or hairy and green to greyish in colour. Flowers are produced between the leaf axils along most of the stem and 4-7 flowers are produced in succession from a common peduncle.

The whitish to greenish orange flowers are unique in that the petals (corolla) are reflexed from the base with the corona (containing ovules and pollinia) being entirely exerted. The flowers actually point downwards. The sequence of the opening of the flower is interesting in that the corona bends downwards through the petal margins whilst the petals remain in the upright position and twist themselves inside out. The flowers have no scent which can be detected

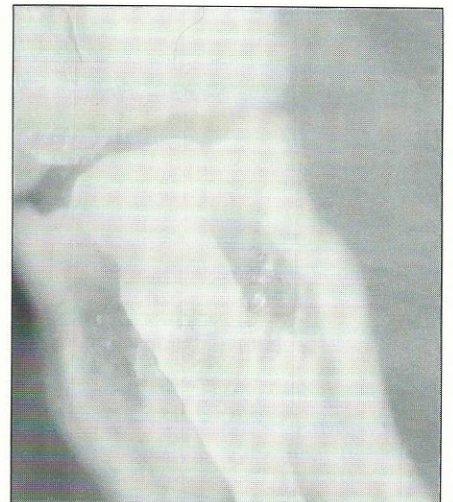


Fig. 3. Close-up of the staminal column with distinctive yellow pollinia (photo: Roger Dixon).

by the human nose. After two or three days, the petals wilt and collapse downwards whilst the pedicel will bend upwards (if fertilisation has occurred) and the seed capsules will develop.

The two seed capsules develop rapidly and can reach a length of 80 mm by 4 mm in breadth. They remain in an upright position for seed shedding later in autumn-winter. There are two forms (ecotypes) of plants, the form *burchellii* having smaller flowers which are usually small (\pm 20-30 mm in length), whitish in colour and having the corona lobes recurved at the tips. The form *grandiflora* has larger flowers, being 30-50 mm long, orange in colour and not having the recurved tips on the corona lobes. The edge of the corona lobes can be toothed, a property which is absent in the type *burchellii*.

Flowering takes place over an extended period throughout the summer and plants should be allowed to become dormant during the winter months. Watering can again be resorted to in spring when growth will commence.

This is an unusual plant which is unique amongst the Stapeliads, especially with regard to its floral form.

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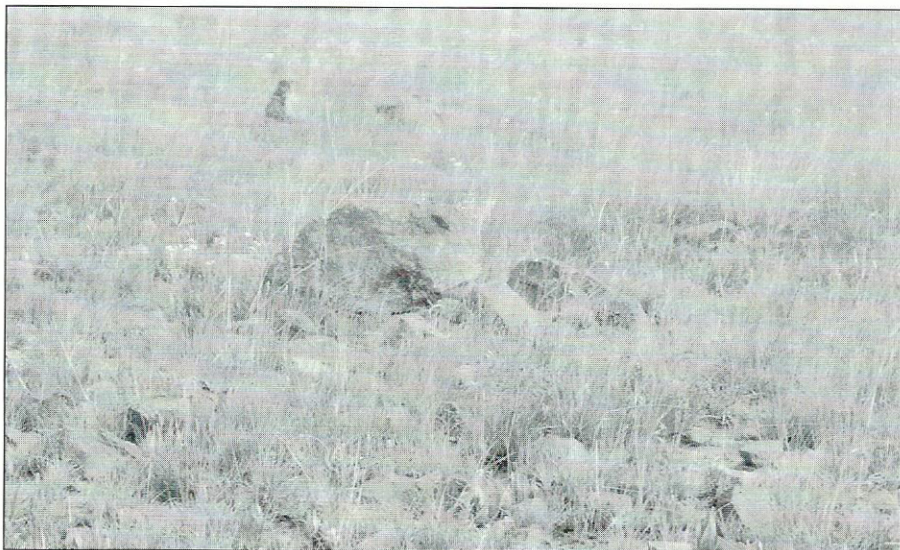


Fig. 1. Typical habitat of *Macropetalum burchellii*.