

A new species of *Brachystelma* (Asclepiadaceae) from the Grahamstown area

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Fig. 1. *Brachystelma lutea* flowering in habitat near Grahamstown

Diagnosis

Brachystelma lutea Peckover sp. nov., *Brachystelma huttonii* Harv. affinis, sed floribus flavovirentibus, corollae lobis erectis prorsum aspicientibus, corollae appendiculus exterioribus structuris 2-lobatis redactis differt.

Description

Perennial herb. *Tuber* 40–50 mm in diameter and up to 30 mm thick. *Stem* single, upright, 50–70 mm tall, branching to give 2–5 stems, 1–2,5 mm diameter at base, puberulent with white hairs, reddish, internodes 3–5 mm apart. *Leaves* horizontal, sessile, linear 12–30 mm x 2–6 mm, subglabrous, vertically undulate, margin entire, both surfaces greenish-red. *Flowers* 2–3 at nodes. *Pedicels* 4–5 mm long, puberulent reddish-green. *Calyx lobes* erect, 1 mm x 0,3 mm, linear-lanceolate and sub-glabrous, reddish-green. *Corolla* 7–8 mm diameter, greenish to yellow, erect; lobes 5 mm x 0,7 mm, sharply recurved edges which almost meet; bulb 3 mm diameter and 0,5 mm deep, saucer shaped. *Corona* 3 mm diameter and 1 mm high. *Outer corona appendages* bilobed, greenish-yellow, 0,6 mm high and 0,7 mm broad. *Inner corona appendages* 0,5 mm at base, incumbent on the backs of the anthers, yellowish-green and glabrous.

Name

The yellow flowers are distinctive and led to the specific name of *lutea*.

Type

Cape, 3326AD (Salem) R.G. Peckover 0157



Fig. 2. Close-up of the corona to show the bilobed appendages

Distribution

This species was discovered 15 km NW of Grahamstown on top of a ridge, the soil being a red sandy loam of reasonable depth. The plants in association with this species consisted of short karroid bushes as well as *Euphorbia meloformis* and various grasses. The rainfall in this area is approximately 450 mm per annum. *B. lutea* is probably also found on

neighbouring sandy-loam ridges with similar climatic conditions.

Discussion

The nearest relative to *B. lutea* is *B. huttonii* which occurs about 15 km NW of this locality in a distinctly drier habitat. The major differences between *B. lutea* and *B. huttonii* lie in the floral structure, with *B. huttonii* having the outer appendages of the corona forming a large distinctive tube whilst in *B. lutea* these appendages become only bilobed protuberances. The corolla lobes of *B. lutea* are distinctly recurved, erect, forward-facing and yellow/green as against the reddish, less recurved, reflexed lobes

which are characteristic for *B. huttonii*. The corona of *B. lutea* is contained within the corolla bulb, whilst in *B. huttonii* this is pronounced and exerted above the bulb.

Representative specimen

Salem 3326AD
R.G. Peckover 0157
(Holotype GMT)

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the most striking of the *H. heidelbergensis* populations. This population is only a few hundred metres from populations of *H. retusa/turgida*, earlier classified as *H. nitidula* (Bayer, 1974 and 1980).

An interesting locality was found on a hill nearer to Riversdale where the plants grow socially with *Gasteria carinata*. Here the plants grow under low bushes and between grass similar to *H. magnifica*. First sight creates the impression that the plants are *H. magnifica* var. *maraisii* (fig. 1, no 3) since they have a red/dark greenish appearance with roughness on the leaves. About 100 m from this hill similar plants which closely resemble *H. heidelbergensis* are found, but unlike the previous localities they favour the morning sun. Plants here grow singly, although at one place they grow so close together that it resembles a honeycomb. *H. magnifica* var. *maraisii* is located on the most easterly point, just west of the Dui-venhoks River about 20 kilometres away. A healthy population of *H. magnifica* var. *atrofusca* and *H. retusa* are found not far from here.

Plants from all four of the above-mentioned localities flower at the same time and it would appear that plants from all four localities are *H. heidelbergensis*.

There is also the well-known locality near Matjestoon (fig. 3) south-west of Heidelberg where plants with narrower leaves than those discussed above are observed. *H. heidelbergensis* is also found at localities across the Breede River towards Bredasdorp

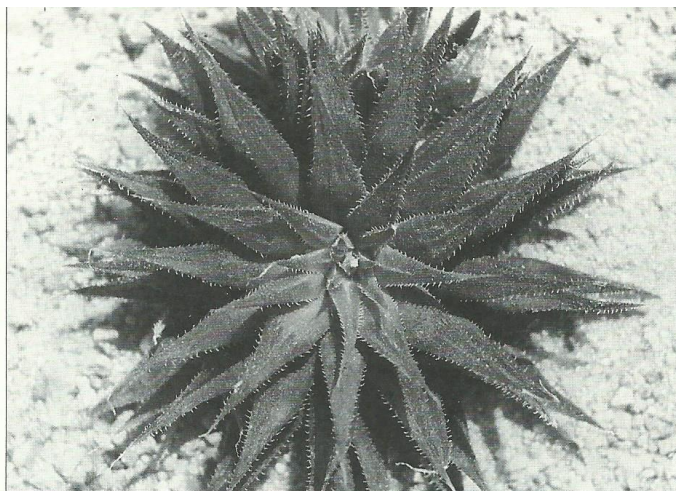


Fig. 3. *Haworthia heidelbergensis* from Matjestoon

(Bayer, 1975). Although the author has seen plants from various localities between the Breede River and Bredasdorp, he has not yet made a field study of these localities.

This investigation which spanned a period of three weeks, proved that *H. heidelbergensis*' most prominent enemy is man, whose greedy collecting habits often pose a threat to this plant. Furthermore, its natural habitat is arable land (such as wheat fields) which is constantly on the decline. Another factor for consideration lies in the fact that *H. heidelbergensis* is sparsely distributed in the above-mentioned localities, compared to *H. retusa/turgida* which in some localities forms large clusters.

Acknowledgement

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