

Erica hanekomii, a new prostrate species from the Western Cape, South Africa.

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In the last *Yearbook* (1998: 33) we referred to the many new species of *Erica* that need to be described from among the collections already existing in the Cape herbaria. However, there are the occasional new species that have never previously been collected and which are still being brought to our attention. Among several examples of such recent discoveries are *Erica magnisylvae* E. G. H. Oliv. which was first collected in 1997 (Oliver 1997), and the new species described here.

This new species of *Erica* was brought to our attention by Mr. W. J. Hanekom near Citrusdal in December 1997. He subsequently visited the population several times and found that the species has a very long flowering season possibly for most months of the year with a peak in spring and early summer. We visited the site with him in August 1998 (late Winter) to study the plants in the wild. There were quite a number of flowers open as well as fruiting stages, but there were numerous developing buds as well.

Most of the Middelberg ridge had been burnt some five years ago, but there were patches of vegetation that had escaped the fire, mostly in the rocky places. It was therefore encouraging to record that numerous seedlings were noted coming up in the open burnt area around the population.

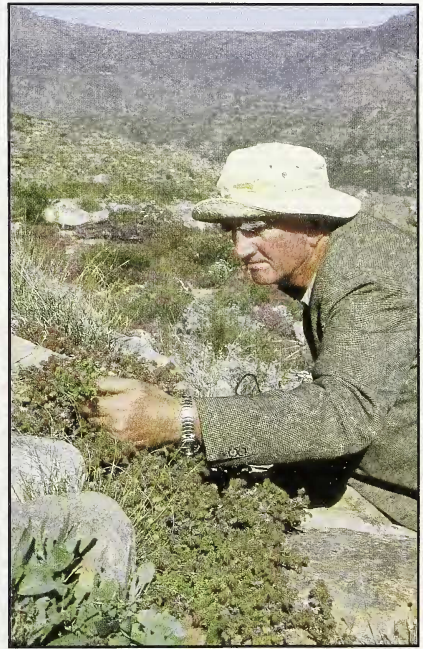


Fig. 2. Willem Hanekom examining his discovery.



Fig. 3. *Erica hanekomii* showing compact, sprawling habit over rocks.



Fig. 4. *Erica hanekomii*, flowering branches.

We then revisited the ridge in early October 1998 to obtain more floriferous material and also better photographs for this article. Instead of going straight to the population previously visited we tackled the highest part of the ridge which is rockier. There we were fortunate to find small islands of unburnt vegetation with a number of plants of the new species, all in good condition and with numerous flowers open.

Most of the plants are low and compact, either spreading over rocks or up into the spaces between rocks. These produce several long spreading branches that grow in amongst the short restiad clumps or other short shrublets. In some cases these branches can be up to 1.5m in length and need to be extricated from the restiads with care.

The plants are rather cryptic in their flowering with only the upper portions of the red flowering heads being visible. Only when the main shrublet or the long spreading branches are picked up does one see the flowers clearly, which in most cases are only a few centimetres above the level of the substrate (soil or rock).

With the relatively large flowers positioned so close to the ground and not visible to flying insects, one immediately wondered what the pollination syndrome of the species could be. No visit by any animals was noted at the time and no syndrome was clearly evident to us. However, there was one unusual feature which struck us when examining the plants. Nearby each shrublet or group of shrublets there were small piles of flowering heads. Each head had the hairy involucreal leaves, bract and sepals removed on one side and there were holes in the sides of the flowers. The neat heaps of flowers were clear evidence of the presence of mice.

Back in the laboratory examination of the fresh flowers showed that some of them contained substantial quantities of nectar so much so that the whole corolla was filled with the sweet tasting, clear liquid. This strongly suggested that the mice were removing flowerheads and probing the flowers for the nectar. This would mean that a small foraging mouse would have to move forcibly under the plants to smell out nectar-bearing flowers and in the process could brush past the far-exserted anthers of other flowers and thereby pass pollen onto the stigmas of other flowers. Freshly open flowers in the laboratory easily shed their pollen when touched.

This leads us to the intriguing postulation that mice could be active in the pollination of *E. hanekomii*, which syndrome is a new one for the genus. This will have to be verified in the field by observation of mouse activities, which usually occur at night. By the setting up of video cameras to observe mouse activity between 7pm and 11pm at night, mouse pollination has been

shown to be the syndrome in several species of ground-flowering Proteaceae in the Cape Fynbos vegetation (Rourke 1980; Weins & Rourke 1978).

We have great pleasure in naming this species after its discoverer, Mr. Willem J. Hanekom (pronounced *har-ne-corn*) who collected plants in the Citrusdal district for many years when on leave from his work in telecommunications in the former Transvaal. Citrusdal is about 160km north of Cape Town. Now that he has retired to the town he has begun a systematic search for interesting and new records and in the process is providing the herbarium with extremely well prepared and documented collections. With a keen eye for anything unusual or different and meticulous recording of details, he has already turned up a few new species.

This remarkable new species is clearly allied to the complex of species that is characterized by a sprawling, almost mat-like habit, the pendulous often involucrate inflorescences, hairy corollas which are usually white, approximate bract and bracteoles which are similar to the narrow elongate sepals (all covered with long hairs), broad filaments, large nectaries, and cross-section of leaves showing numerous sclereids or fibres (over 50) with a thick cuticle and thin single layer of epidermal cells. Species of this group are *E. involucreta* Klotzsch ex Benth. (see Baker & Oliver 1967: t. 127), *E. senilis* Klotzsch ex Benth., *E. eriophoros* Guthrie & Bolus, *E. tegetiformis* E. G. H. Oliv. (see Schumann & Kirsten 1992: 185, 186) and *E. greyii* Guthrie & Bolus and all occur in the same part of the Cape Florist Region, namely Tulbagh/Ceres northwards to the Cedarberg of Citrusdal and Clanwilliam.

Erica hanekomii is easily distinguished from the above-mentioned species by the red-hairy, involucrate, pendulous, much larger inflorescences, the well-exserted stamens with very large pores but without any appendages, and the glabrous ovary. It is perhaps most similar to *E. involucreta* with its pink heads of flowers and the leaves with the same characteristic appressed petiole and reflexed lamina, but the latter has plumose, gland-tipped hairs on most organs (including the ovary) and the cup-shaped corolla is hidden by the broad pink involucreal leaves, bract and bracteoles and spurred anthers with relatively small pores. *E. senilis* occurs near the populations of the new species but has all white flowers (including the stamens) and the corolla and stamens are completely hidden within the very hairy heads.

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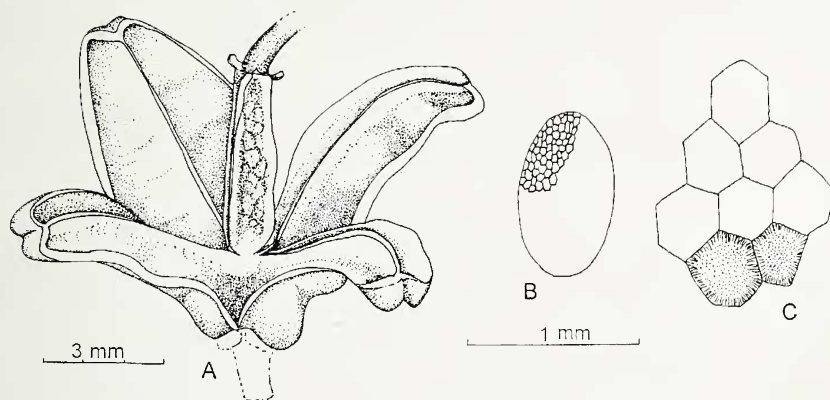


Fig. 5. *Erica hanekomii*. Fruit details; A, capsule; B, seed; C, testa cells, each $70 \times 55 \mu\text{m}$. Drawn from Oliver 11172.

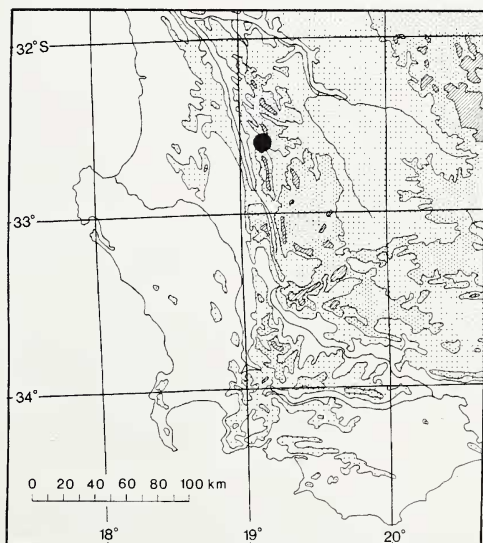


Fig. 6. The known distribution of *Erica hanekomii* in the Western Cape, South Africa.

***Erica hanekomii* E. G. H. Oliv., sp. nov.**

Species in genere distincta propter habitum prostratum repentem, inflorescentias involucratas pendulas pilis multis rubris, antheras bene exsertas poro magno et sine calcaribus, ovario glabro.

TYPE: SOUTH AFRICA, Western Cape, 3219CA, Citrusdal District, Middelberg ridge, just north of summit of Middelberg Pass, on rocky east slope, 1200m, 5-10-1998, *Oliver 11172* (NBG holo.; K, PRE)

Prostrate, sprawling, sparse to matted **shrublet** to 10cm tall and up to 1.5m wide, single-stemmed reseeder. **Branches**: several main branches sprawling up to 1.5m long, mostly continuing growth, occasionally terminating in a florescence; numerous secondary branches 15–100mm long, the longer ones sometimes with tertiary branchlets, all ending in a florescence, internodes on main branches ± 4 mm long and on lateral branches ± 1.5 mm long; indumentum of numerous short spreading hairs with fine hairs ± 1.5 mm long admixed, these eglandular or glandular. **Leaves** 4-nate, of two types; normal vegetative leaves 3.5–6.0 \times 0.8–1.0mm, reflexed with petiole appressed, narrowly oblong to lanceolate, margins subobtuse, narrowly sulcate, green, puberulous with short fine eglandular hairs and longer stouter glandular hairs admixed and longer eglandular hairs towards the apex; leaves just below inflorescence 7.0 \times 1.3mm like bract but slightly narrower, reddish; petioles appressed, puberulous. **Inflorescence**: flowers 4-nate in 1, occasionally 2, whorls as pendulous heads terminal on secondary branchlets; pedicel 2mm long, puberulous with eglandular or glandular hairs and sometimes longer hairs admixed; bract partially recalcrescent and approximate to calyx, 7.0 \times 1.8mm, oblong-elliptic, apex acute, subopen-backed to widely so, red, puberulous with numerous fine hairs and a few gland-tipped hairs and with numerous conspicuous simple hairs 2–4mm long admixed, these white to red when facing sun; bracteoles 2, like the bract but slightly smaller. **Calyx** 4-partite or very slightly fused at base; segments nonimbricate, $\pm 6.4 \times 1.0$ mm, narrowly oblong, subnarrowly sulcate in upper half, indumentum and colour like bract and bracteoles. **Corolla** 4-lobed, 6.0 \times 4.0mm, ovoid-ampullaceous, exserted ± 2 mm beyond bract/bracteoles/calyx complex, puberulous with reflexed hairs, white with green tinge often reddish towards sunny side; lobes erect, small, 0.5 \times 1.0mm, rounded, shortly ciliate, white turning brown. **Stamens** 8, free, far exserted; filaments $\pm 7.5 \times 0.4$ –0.6mm, straight, flat, lower $\frac{2}{3}$ white, upper $\frac{1}{3}$ golden-yellow to reddish brown; anthers bilobed, oblong, golden brown, muticous; thecae 2.7 \times 0.5mm, oblong, appressed; pore $\frac{4}{5}$ of theca, almost slit-like; pollen as tetrads. **Ovary** 4-locular, 2.0 \times 1.5mm, ovoid, emarginate, green, with a few apical hairs, nectaries large, yellow; ovules ± 14 per locule, spreading to suberect from placenta in upper half; style 9mm long, exserted, straight becoming apically curved with age, glabrous, white; stigma capitate, small, greenish. **Fruit** a dehiscent capsule, golden brown, valves free from columella and splitting to nearly 90°, with small basal pouches, septa equal on valves and columella; seeds 1.0 \times 0.6mm, ellipsoid, rounded in transverse-section; testa dark brown, alveolate, medium thick, cells subequal, 4- or 5-polygonal with straight anticlinal walls, anticlinal and inner periclinal walls well pitted.

Paratypes: Western Cape. 3219: (-CA), Citrusdal, Middelberg, 1150m, 1-11-1997, *Hanekom 2932* (BOL, K, NBG, PRE); Middelberg ridge, north extension between Witberg & Grootberg, 1160m, 18-08-1998, *Oliver & Hanekom 11108* (K, NBG, PRE).

Observations and experiences in searching for heathers in the wild in Ireland.

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Having read the late Major Walter Magor's account of an Irish tour in the 1981 *Yearbook*, I went to Connemara for the first time in the summer of 1982 and since then I spend a week each year "tramping" the bog lands of Connemara in search of new cultivars.

My first and best find was in 1986 when I discovered *Daboecia cantabrica* 'Celtic Star' on the Errislannan Peninsula (Nelson 1990, 1992). It is characterised by a strange bright red calyx against a pale lavender bell (see illustration on cover of *Yearbook* 1994, and also p. 14). Unfortunately the original plant did not survive a subsequent gorse fire. Also, in 1986 I discovered *Daboecia cantabrica* 'Clifden' at Clifden Bay. The crimson flowers of this plant are a good contrast to the dark foliage (registered 1990; see *Yearbook* 1998: 74).

On a visit to Errislannan in September 1990 and near to the site of 'Celtic Star' I found *Daboecia cantabrica* 'Celtic Flame' which has a bright magenta (heliotrope) corolla (*Yearbook* 1998: 73).

Prompted by David McClintock's find of *Erica x stuartii* 'Irish Lemon' and 'Irish Orange' at Lough Nacung at the foot of Errigal Mountain in County Donegal, I visited the area in Spring 1989 and noticed many plants with yellow and orange new growth on a turf cutting patch. When I drew the attention of a turf cutter to the unusual heather, he replied that he had been cutting turf there for many years and hadn't noticed it. It is necessary to visit in the Spring as the young growth eventually reverts to green. I did, however, notice a few isolated clumps with rose-tipped shoots from which I successfully propagated *E. x stuartii* 'Irish Rose' (McClintock 1993).

My visit to Connemara in August 1991 resulted in finding *Daboecia cantabrica* 'Celtic Snow' (see this *Yearbook*: p. 68; see also *Yearbook* 1998: 73) on high ground above the Sky Road, near to Clifden. This is a prostrate plant with intense white flowers.

On one occasion I had a distressing experience when searching for heathers. I had gone to an area near Roundstone where more than 150 years ago James Townsend Mackay (see Mackay & Nelson 1997) recorded finding