

Studies in the Ericoideae (Ericaceae). XVI. Six new species of *Erica* from the Western Cape, South Africa.

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Keywords: *Erica*, taxonomy, new species, South Africa, Western Cape

ABSTRACT

Six new species of *Erica* L. from the mountains of the Western Cape are described: *E. alnea* E.G.H. Oliv., *E. hexensis* E.G.H. Oliv., *E. hispiduloides* E.G.H. Oliv. and *E. tarantulae* E.G.H. Oliv. from the inland areas centred on the Hex River Mountains; *E. hottentotica* E.G.H. Oliv. and *E. magistrati* E.G.H. Oliv. from the Hottentots Holland Mountains between Stellenbosch and Somerset West.

UITTREKSEL

Ses nuwe spesies van *Erica* L. van die berge van die Wes-Kaap word beskryf: *E. alnea* E.G.H. Oliv., *E. hexensis* E.G.H. Oliv., *E. hispiduloides* E.G.H. Oliv. en *E. tarantulae* E.G.H. Oliv. van die binnelandse streke gesentreer op the Hexrivierberge; *E. hottentotica* E.G.H. Oliv. en *E. magistrati* E.G.H. Oliv. van die Hottentots-Hollandberge tussen Stellenbosch en Somerset Wes.

INTRODUCTION

During our investigations of 'incertae' material housed in herbaria, a number of new taxa have been encountered. Five small-flowered species that would currently be placed in the section *Arsace* and one in the section *Eurystoma*, according to *Flora capensis* (Guthrie & Bolus 1905), are dealt with in this paper. Most of the material has resulted from the remarkable collecting done by T.P. Stokoe and then Miss Elsie Esterhuysen on the high mountains of the Western Cape during the period from the 1930's to the 1980's.

1. *Erica hispiduloides* E.G.H. Oliv., sp. nov. (§ *Arsace*), *E. hispidulae* L. pervulgatae, *E. maestae* Bolus et *E. glandulipilae* Compton affinis sed ab *E. hispidula* pilis mollibus in ramulis foliis pedicellis et sepalis, ab *E. glandulipila* pilis longis eglandulosis vel glandulosis in ramulis, glandibus sessilibus in marginibus sepalorum, ab *E. maesta* bracteis bracteolisque subaequalibus saepe esulcatis et glande apicali distinguitur. Figura 1.

TYPE.—Western Cape, 3319 (Worcester): Worcester Div., Hex River Mtns, Milner Ridge Peak, cliffs on S side, 1 525–1 678 m, (–AD), 10-11-1943, *Esterhuysen* 9379 (BOL, holo.; PRE, STE).

Shrub erect, densely branched, 0.3–1.2 m tall. Branches puberulous and with very long soft gland-tipped, rarely eglandular hairs and shorter gland-tipped hairs intermixed, with no infrafoliar ridges, bark splitting irregularly. Leaves 3-nate, 2.0–3.0 × 0.6 mm, elliptic-

oblong, erect to spreading, subopen-backed with revolute rounded edges, puberulous, edged with a few very long stout gland-tipped hairs and one apically; petiole ± 0.5 mm long, ciliate. Flowers 3-nate at ends of short lateral branchlets, erect to spreading; pedicel 1–2 mm long, puberulous; bract submedian, 0.5–1.0 × 0.3–0.5 mm, narrowly elliptic, sulcate or occasionally esulcate, puberulous, with large apical gland; bracteoles opposite, median, similar to bract but slightly smaller. Calyx 4-lobed almost to base, 0.7–1.5 mm long, cyathiform, green to pink, lobes ovate, acute, sparsely puberulous, edged with large glands. Corolla 4-lobed, 1.5 × 2.0–2.5 mm, cyathiform-urceolate, glabrous, pink, occasionally creamy yellow, lobes erect, broadly rounded, about quarter length of corolla. Stamens 8 included; filaments ± 0.5 mm long, oblong, slightly broadening to base with sigmoid bend below anther, glabrous; anther erect, mucicous, thecae oblong-elliptic, 0.4 × 0.8 mm, glabrous; pore half length of theca; pollen in tetrads. Ovary 4-locular, 4-lobed, 0.5 × 0.9 mm, obovoid and emarginate, sparsely pilose, with no basal nectary glands, ovules 15–20 per locule, spreading to pendulous on a subapical placenta; style 0.3–1.0 mm long, glabrous; stigma broadly cyathiform. Capsule depressed globose, 1.0 × 1.2 mm, glabrous, yellowish brown, septa free from central axis; seeds ellipsoid, ± 0.4 mm long, elongate reticulate, golden brown. Figure 1.

This species is distinguished by the short soft hairs on the stems, leaves, pedicel and sepals with long soft bending hairs, which may be glandular and eglandular, intermixed with them on the branches, by sessile glands edging the sepals and by the small subequal bract and bracteoles which have a terminal stalkless gland and are often devoid of a sulcus.

It is closely related to the very common and widespread *E. hispidula* L. which has a shiny rather than dull

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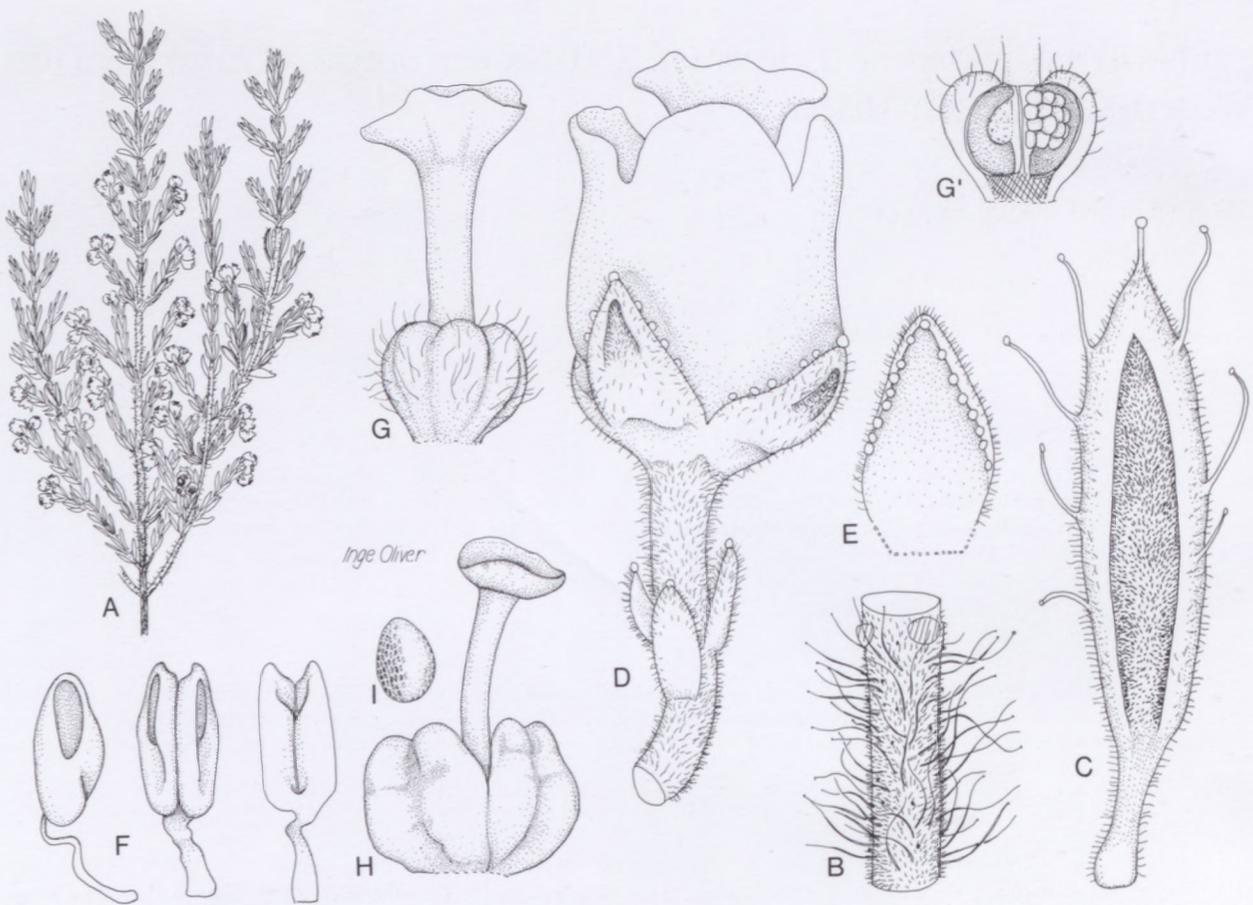


FIGURE 1.—*Erica hispiduloides*. A, flowering branches, $\times 1$; B, stem; C, leaf; D, flower; E, sepal; F, anther, side, front & back views; G, gynoecium; G', ovary cut longitudinally; H, fruiting gynoecium; I, seed. B, $\times 6$, C-I, $\times 25$. All drawn from type, Esterhuysen 9379.

appearance on close examination, stiffer, hispid hairs which are sparser than the dense puberulous hairs of the new species, particularly on the branches. *E. hispidula* has lanceolate glabrous cartilaginous sepals and the corolla is more urceolate with spreading lobes. It can also be distinguished from another species, *E. glandulipila* Compton, which has long gland-tipped hairs on the sepals, anther appendages and a peltate stigma. The other close relative, *E. maesta* Bolus, differs in having no sessile glands on the sepals, a glabrous ovary and plumose hairs on branches and leaves.

E. hispiduloides occurs at high altitudes on the mountains around the Worcester basin with an outlier to the north in the southern Cedarberg and an extension eastwards along the Klein and Great Swartberg as far as Blesberg (Figure 2). The species could well be more frequent, but may have been overlooked due to its close superficial resemblance to *E. hispidula* which is probably the commonest species of *Erica* in the Western Cape.

The habitat of the species is distinctive, being on moist rock ledges on cliffs or very steep gullies on the south

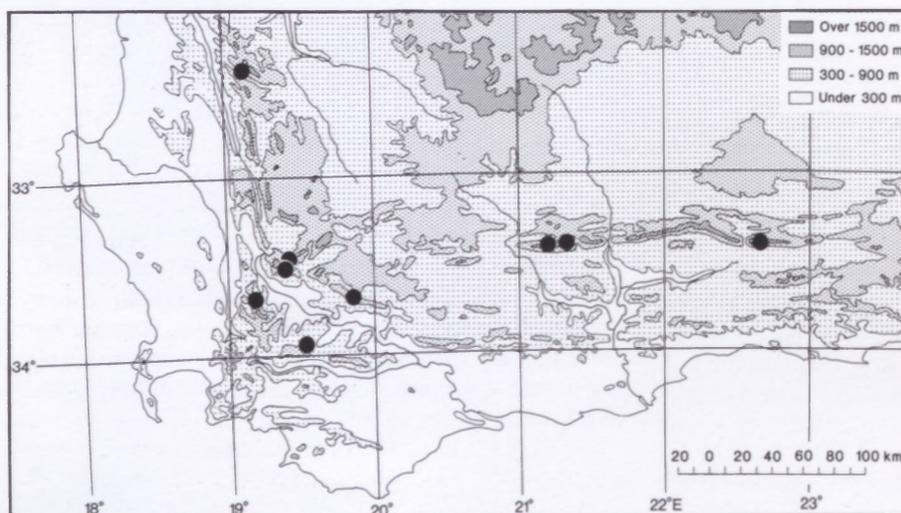


FIGURE 2.—The known distribution of *Erica hispiduloides*.

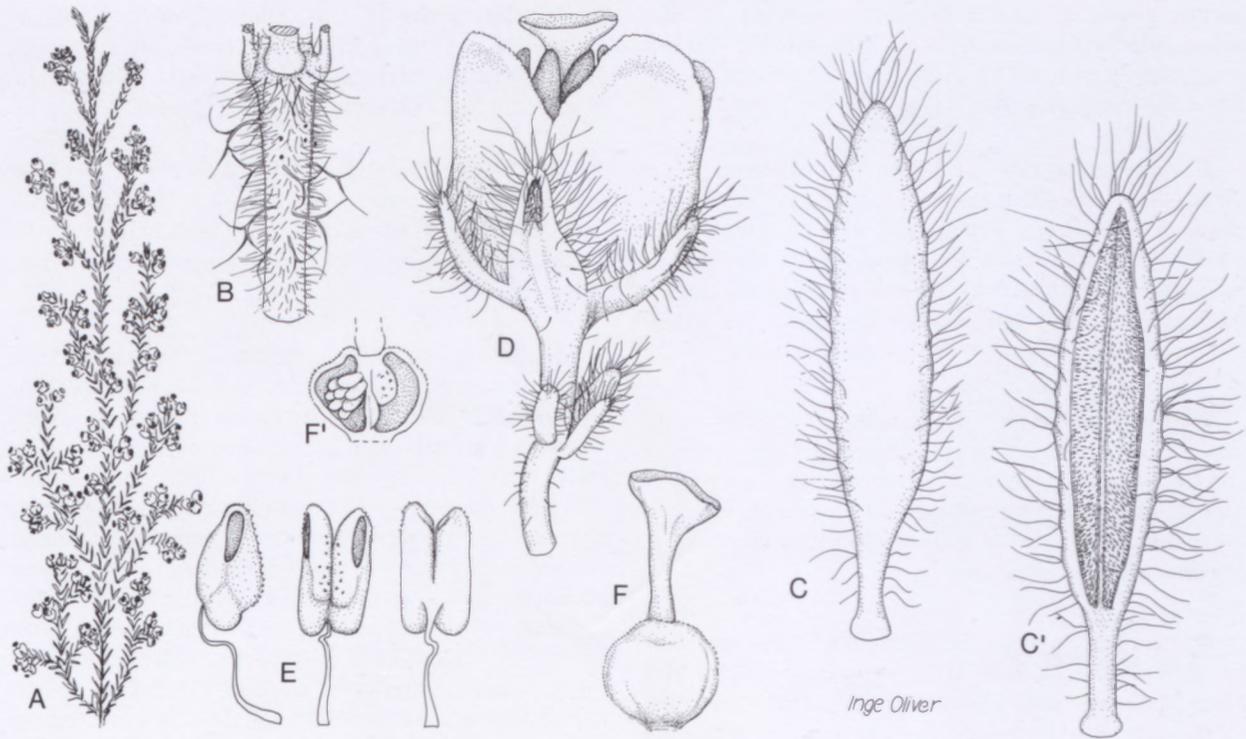


FIGURE 3.—*Erica hexensis*. A, flowering branch, $\times 1$; B, stem; C, leaf, adaxial view; C', abaxial view; D, flower; E, anther, side, front & back view; F, gynoecium; F', ovary, cut longitudinally. B–F', $\times 25$. All drawn from *Esterhuysen 8164*.

side of mountains between 1 500 and 2100 m where it forms dense woody shrubs up to 1.2 m tall. On the ledges facing south on Jonaskop, the plants were not common and displayed two colour forms in the flowers on different plants—creamy yellow with a tinge of pink or pure bright pink. The latter were the taller shrubs, otherwise no differences could be found between the two forms. Flowers from September to December.

Specimens examined

WESTERN CAPE.—3219 (Wuppertal): Cedarberg, Uitkyk Peak, 1 495 m, (–AC), 12-10-1975, *Esterhuysen 34008* (BOL, PRE). 3319 (Worcester): Hex River Mtns, Milner Ridge Peak, 1 520–1 680 m, (–AD), 10-11-1943, *Esterhuysen 9379* (BOL, PRE, STE); Milner Peak, 1 830 m, (–AD), 11-11-1960, *Esterhuysen 28610* (BOL, K, PRE); kloof between Milner Ridge Peak & Shale Peaks, 1 680 m, (–AD), 2-01-1961, *Esterhuysen 28711* (BOL); Milner Peak, 1 680 m, (–AD), 11-10-1980, *Esterhuysen 35525* (BOL); Du Toits Kloof, Molenaarsberg, 1 520 m, (–CA), 5-10-1947, *Esterhuysen 14095* (BOL); Slanghoek Mtns, Witteberg, 1 830 m, (–CA), 28-10-1979, *Esterhuysen 35269* (BOL, K); Brandwacht Peak, 1 830 m, (–CB), 26-11-1944, *Esterhuysen 11022* (BOL); Chavonnesberg, 1 620 m, (–CB), 3-10-1948, *Esterhuysen 14581* (BOL); Hex River Mtns, Horseshoe Peak, 1 680 m, (–CB), 1-11-1953, *Esterhuysen 22205* (BOL); Fonteintjiesberg, Meiring's Plateau, 1 680 m, (–CB), 20-10-1963, *Esterhuysen 30412* (BOL); Robertson Dist., Dasiesshoek Peak, 1 370 m, (–DB), 3-09-1961, *Esterhuysen 29122* (BOL); Jonaskop, 1 616 m, (–DC), 04-1983, *Oliver 7971* (STE); *Oliver 7972* (STE); *ibid.*, 8-04-1994, *Oliver & Oliver 10450* (BM, K, PRE, STE); top of Baviaanskloof in Boschjesveld Mtns, (–DC), 02-1940, *Stokoe 7488* (BOL, PRE) & *SAM 55109A* (SAM). 3321 (Ladismith): Klein Swartberg, Toverkop, 1 980 m, (–AC), 16-12-1956, *Esterhuysen 26760* (BOL, K); Klein Swartberg W of Seven Weeks Poort Mtn, ledges on S side of Ridge Peak, 2 100 m, (–AD), 27-12-1928, *Andrae 1231* (BOL, PRE, STE); Klein Swartberg, main ridge W of Hoeko Peak, 2 060 m, (–AD), 4-02-1992, *Oliver 10015* (STE). 3322 (Oudtshoorn): Swartberg, Blesberg, 1 830 m, (–BC), 17-10-1955, *Esterhuysen 24919* (BOL, K, PRE).

2. *Erica hexensis* E.G.H. Oliv., sp. nov., (§ *Arsace*), *E. hispidulae* L. et *E. glandulipilae* Compton affinis sed

pilis longis apicibus perlonge furcatis, glandibus sessilibus paucis in ramulis, aliter eglandulosa, antheris muticis, ovario papillato-verrucoso differt. Figura 3.

TYPE.—Western Cape, 3319 (Worcester): Ceres Dist., Hex River Mtns, shale band from Witels Kloof up to Buffelshoek Peak, SW aspect, 1 525–1 830 m, (–AD), 8-10-1956, *Esterhuysen 26366* (BOL, holo.; K, NBG, STE).

Shrub erect, compact up to 1 m tall. Branches erect with numerous soft small lateral branchlets, puberulous, some hairs up to 0.2 mm long and with long stouter long-forked hairs up to 0.5 mm long and occasional sessile red glands intermixed, older branches with more forked hairs, with no infrafoliar ridges, bark grey, splitting irregularly when older. Leaves 3-nate, 2.0×0.5 mm, oblong-elliptic, open-backed, sparsely long villous mainly towards margins, abaxially shortly hispid; petiole ± 0.5 mm long, sparsely long ciliate. Flowers 3-nate at ends of very short lateral branchlets, mostly facing upwards; pedicel ± 1.4 mm long, glabrous or occasionally with a few short hairs; bract and bracteoles median 0.4 and 0.3 mm long respectively, oblong not sulcate, glabrous sparsely ciliate with long hairs. Calyx 4-lobed, fused at base only, lobes 0.8 mm long, lanceolate, acute, sulcate in upper half, half as long as corolla, ciliate with long thin hairs and with some scattered on abaxial side. Corolla 4-lobed, 1.5×1.4 mm, cyathiform, glabrous, dusky red to pink, lobes obtuse, crenate-fimbriate, erect. Stamens 8 included; filaments 0.7 mm long, narrowly linear from a slightly broader base with a subsigmoid bend below anther, glabrous; anther just manifest, 0.8×0.4 mm, ovate, obtuse, erect, dorsally attached near base, muticous, very shortly strigose on adaxial edge; pore one third to half length of theca; pollen in tetrads. Ovary 4-locular, 4-lobed, 0.6×0.6 mm, broadly ellipsoid and slightly emarginate, finely papillate, with no

nectary glands at base, ± 8 ovules per locule, subpendulous, placenta bulbous in upper half; style 0.5–1.0 mm long, slightly to much exerted, glabrous; stigma cyathiform, red. *Fruit* unknown. Figure 3.

E. hexensis is another of the small-flowered species in the section *Arsace* that bears a resemblance to the very common *E. hispidula*. From this it may be distinguished by the long soft hairs with long-forked tips on the branches, lack of glands except a few sessile ones on the branches, distinct white median line down the sepals, cyathiform corolla and papillate-verrucose ovary.

From the more eastern *E. glandulipila* it differs in the lack of glands and anther appendages, the ovary surface and the cyathiform stigma, the latter having a subpelate-capitate stigma. The type of hairs on the branches and the ovary indumentum serve to distinguish it further from *E. hispiduloides*.

As the name suggests the distribution of this species is centred on the high peaks collectively known as the Hex River Mountains in the Worcester/Ceres Districts (Figure 4). It grows on southwest- to southeast-facing slopes which are cool and moist. Flowers from September to November.

Specimens examined

WESTERN CAPE.—3319 (Worcester): Worcester Dist., Hex River Mtns, shale band near Buffels Dome, 1 700 m, (–AD), 10.11.1943, *Esterhuysen* 9370 (BOL, PRE); Worcester Dist., Hex River Mtns, Milner Ridge Peak, 1 650 m, (–AD), 10.11.1943, *Esterhuysen* 9371 (BOL); Ceres Dist., Hex River Mtns, shale band from Witels Kloof up to Buffelshoek Peak, 1 525–1 830 m, (–AD), 8–10-1956, *Esterhuysen* 26366 (BOL, K, NBG, PRE, STE); Worcester Dist., Hex River Mtns, slopes below Buffelshoek Peak at head of Sentinel Kloof, 1 670 m, (–AD), 19-09-1965, *Esterhuysen* 31201 (BOL); Worcester Dist., Mostertshoek, S face, 300 m, (–AD), 12-09-1976, *Mostert s.n.* (BOL); Mostertshoek, left side of Donkerkloof, 1 060 m, (–AD), 17-09-1977, *Mostert s.n.* (BOL); Worcester Dist., Chavannesberg, cliffs below summit, 1 525 m, (–CB), 3-10-1948, *Esterhuysen* 14578 (BOL); *ibid.*, 1 220 m, 4-10-1942, *Esterhuysen* 8164 (BOL, K, NBG, MO, PRE, STE) & 8165, 8166, 8167 (NBG); Worcester Dist., Fonteintjiesberg, 1 525 m, (–CB), 20-10-1963, *Esterhuysen* 30409 (BOL).

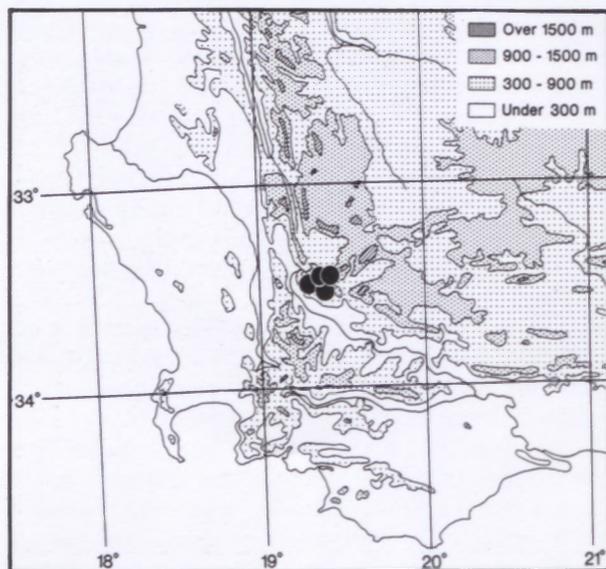


FIGURE 4.—The known distribution of *Erica hexensis*.

3. *Erica alnea* E.G.H. Oliv., sp. nov., (§ *Arsace*), *E. cupuliflorae* Dulfer affinis sed corolla late ellipsoidea, antheris muticis thecis adaxialiter setiferis, ovario glabro et stigmatate late cyathiformi differt. Figura 5.

TYPE.—Western Cape, 3319 (Worcester): Ceres Dist., Hex River Mtns, shale band from Wit Els Kloof up to Buffelshoek Peak, SW aspect, steep banks above stream, 1 220 m, (–AD), 8-10-1956, *Esterhuysen* 26362 (BOL, holo.; PRE, STE).

Shrub erect, to 600 mm tall, much branched, dense, lax and spreading in shady places. *Branches* hispidulous with no infrafoliar ridges, bark grey, flaking irregularly. *Leaves* 3-nate, appressed to spreading, reflexed in shaded plants, 2.0–2.5 \times 0.6 mm, linear-elliptic, flat adaxially with acute margins, convex and sulcate abaxially, glabrous and shortly ciliate; petiole ± 0.5 mm long, ciliate, otherwise glabrous. *Flowers* 3 to 6-nate at ends of numerous short lateral branchlets; pedicel ± 2 mm long, glabrous or with occasional short hairs at base; bract median to remote, ± 0.5 mm long, oblong-lanceolate, slightly sulcate subapically, ciliate; bracteoles opposite, just above bract and similar to bract. *Calyx* 4-lobed, fused in lower quarter, glabrous, lobes broadly ovate, subacute, glabrous, ciliate, pink. *Corolla* 4-lobed, broadly ellipsoid, 2.0 \times 1.5 mm, glabrous, pink, lobes broadly rounded, erect to incurved, one third the length of corolla. *Stamens* 8 included; filaments ± 0.5 mm long, oblong, almost straight, glabrous; anthers erect, muticous, glabrous, thecae ellipsoid, 0.8 \times 0.3 mm, with a few stiff hairs ± 0.15 mm long on adaxial edges; pore two thirds the length of theca; pollen in tetrads. *Ovary* 4-locular, 8-lobed, globose and emarginate, 0.5 \times 0.7 mm, glabrous, no nectaries basally, ovules 20–26 per locule pendent from large complete placenta; style 0.5–1.0 mm long, glabrous, red; stigma cyathiform, manifest to well exerted, red. *Capsule* globose, 1.4 \times 1.0 mm, septa free from central axis; seeds 0.2 \times 0.1 mm, subovoid-ellipsoid, irregularly angled, the angles often sharp, shallowly reticulate, yellow to yellowish brown. Figure 5.

E. alnea is most closely related to *E. cupuliflora* on account of the bulbous joined base of the calyx but differs in having a broadly ellipsoid corolla, muticous anthers placed on short broad filaments and with short stout setae on the adaxial edges of the thecae, a glabrous ovary and far exerted cyathiform stigma. Dulfer's (1963) species has an open cyathiform flower, scabrid anthers with long awns, a sparsely pubescent ovary and subcapitate-cyathiform stigma which is included. He likened his species to *E. micrandra* Bolus but that species has remarkable small anther thecae with relatively large narrow crests, and also to *E. monantha* Compton which has aristate leaves and belongs to the *E. longipedunculata* Lodd. complex. The species could also be mistaken for *E. tenuis* Salisb. or *E. leptopus* Benth. which have the same general facies but simple stigmas.

All of the species mentioned above occur in the Ceres District. The close ally, *E. cupuliflora*, occurs on sandy flats and lower slopes, whereas the new species is confined to damp slopes, streamsides and ledges at higher altitudes from the Worcester/Ceres area with an outlier in the central Cedarberg to the north (Figure 6). The type

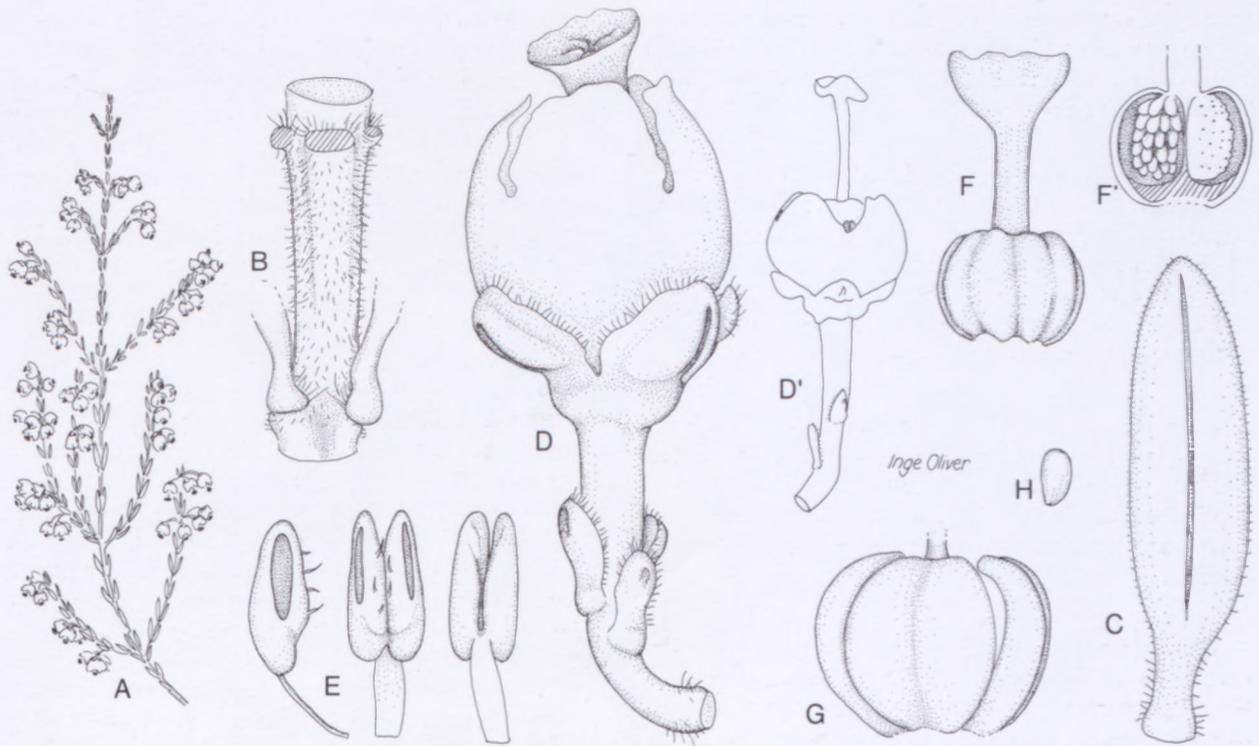


FIGURE 5.—*Erica alnea*. A, flowering branch, $\times 1$; B, stem; C, leaf; D, flower; D', old fruiting flower; E, anther, side, front & back views; F, gynoeceium; F', ovary cut longitudinally; G, fruit; H, seed. B–H, $\times 25$, with D', $\times 12.5$. All drawn from type, Esterhuysen 26362.

collection comes from the Witels area, named after the white alder [witels], *Platylophus trifolius* (L.f.) D. Don (Cunoniaceae), hence the name of the new species. It was collected at the same time as the type of *E. hexensis* (q.v.). Flowers from May to October depending on the locality.

Specimens examined

WESTERN CAPE.—3219 (Wuppertal): Cedarberg, Sneeuwberg area, Cedarhout Kloof, 910 m, (–AC), 2-09-1963, *Esterhuysen 30316* (BOL, K); 3319 (Worcester): Roodezand Pass, Tullbagh side, (–AA), 1-08-1938, *Stokoe 6836* (BOL); Hex River Mtns, shale band from Witels Kloof up to Buffelshoek Peak, 1 220 m, (–AD), 8-10-1956, *Esterhuysen 26362* (BOL, PRE, STE); Red Kloof at Worcester end of Du Toits Kloof, (–CA), 7-09-1958, *Esterhuysen 27890* (BOL); Sanddrift Kloof, 910 m, (–BC), 29-05-1949, *Esterhuysen 15402* (BOL, MO, NBG, PRE, STE); Prospect Peak, 1 070 m, (–BC), 2-10-1949, *Esterhuysen 15914* (BOL); Outer Sanddrift Peaks, 1 220 m, (–BC), 28-10-1962, *Esterhuysen 29752* (BOL, PRE); Audensberg, (–CB), 6-10-1940, *Esterhuysen 3343* (BOL); Fontejntjiesberg, (–CB), 08/09-1925, *Stokoe in BOL 18399* (BOL); Stettynsberg, (–CD), 07-1949, *Stokoe in SAM 62334* (BOL, SAM); Louwshoek Mtn, (–CD), 11-1946, *Stokoe in SAM 62341* (BOL, PRE, SAM).

4. *Erica tarantulae* E.G.H. Oliv., sp. nov., in genere distinctissima propter cristas antherarum perasymmetricas et saepe ascendentes sed in sectione *Eurystoma* posita, *E. calycinae* L. et *E. brevicaulis* Guthrie & Bolus affinis sed ab eis pilis paucis simplicibus non dendroideis, stylo apicale papillato differt. Figura 7.

TYPE.—Western Cape, 3319 (Worcester): Cape, Ceres Dist., Waaihoek Mtns, peak E of Tarantula Peak, on small stony plateau, 1 200–1 370 m, (–AD), 7-10-1954, *Esterhuysen 21829* (BOL, holo.; MO, K, PRE, STE).

Shrublets low, semi-sprawling up to 160 mm tall. Branches trigonous with no distinct infrafoliar ridges,

puberulous when young, soon becoming glabrous, bark splitting irregularly and with small infrafoliar flakes. Leaves 3-nate, erect, adpressed, 1.5–2.0 \times 0.8 mm, narrowly ovate to elliptic, convex and sulcate abaxially with sharp edges, flat adaxially, puberulous towards base adaxially and sparsely ciliate with hairs and a few stalked, red, gland-tipped hairs, otherwise glabrous; petiole \pm 0.3 mm long, ciliate, glabrous abaxially, puberulous adaxially. Flowers 3–6 at ends of main and short lateral branchlets, mostly pendulous; pedicel \pm 0.3 mm long, glabrous; bract approximate, 1.3 \times 1.0 mm.

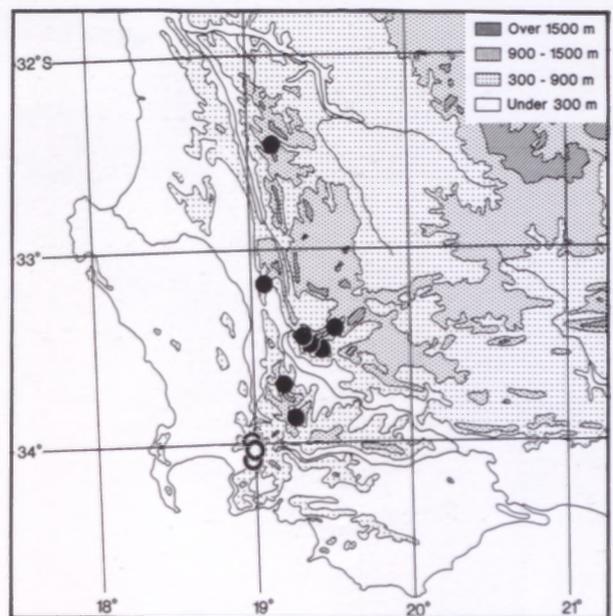


FIGURE 6.—The known distribution of *Erica alnea*, ●, and *E. hottentotica*, ○.

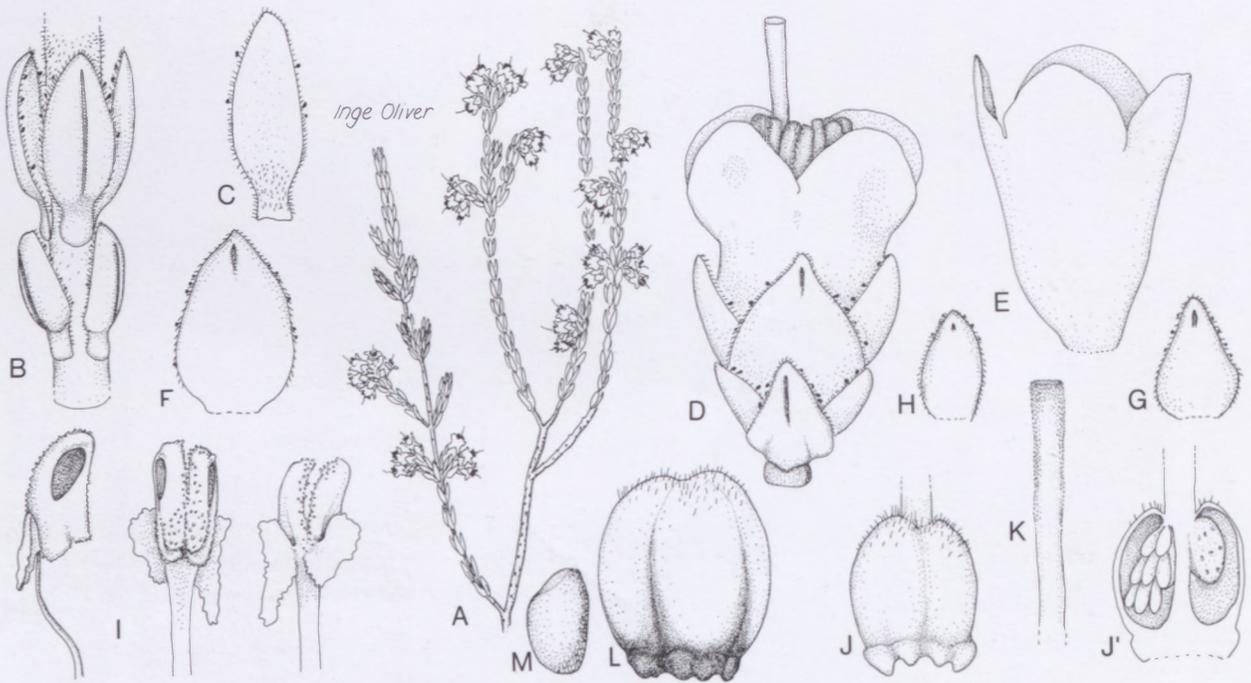


FIGURE 7.—*Erica tarantulae*. A, branch, $\times 1$; B, stem & leaves; C, leaf, adaxial view; D, flower; E, corolla; F, sepal; G, bract; H, bracteole; I, anther, side, front & back views; J, ovary; J', ovary, cut in half longitudinally; K, style & stigma; L, fruit; M, seed. B–H, $\times 12.5$; I–M, $\times 25$; L, drawn from *Stokoe* 7889; rest drawn from type, *Esterhuysen* 21829.

broadly ovate, sulcate in upper half, glabrous, ciliolate with hairs and stalked red glands, rose pink; bracteoles approximate, like bract, but 1.2×0.8 mm. *Calyx* 4-partite, segments 2.0×1.3 mm, elliptic to ovate, shortly sulcate apically, glabrous, ciliolate with hairs and some stalked red glands, rose pink. *Corolla* 4-lobed, 4.5×2.5 mm, obconical, glabrous, rose pink, lobes quarter the length of corolla, broadly obtuse, erect to slightly spreading. *Stamens* 8, included to manifest; filaments ± 2 mm long, linear, slightly bent backwards below anther; anthers dorsally attached near base, appendiculate, thecae ± 0.7 mm long, oblong-falcate, obtuse, roughly papillate, crests very variable in shape and size even on same anther, large,

fleshy, variously serrate, sometimes erect, pore half the length of theca; pollen in tetrads. *Ovary* 4-locular and 4-lobed, 1.0×0.8 mm, broadly ellipsoid and emarginate, sparsely puberulous apically, with nectary glands basally, 6–8 ovules per locule, pendulous on subglobose placenta in upper half; style ± 4 mm long, narrow cylindrical, exserted, papillate apically; stigma simple to subpeltate. *Capsule* ellipsoid, 1.3×0.8 mm, reddish brown with much darker base, valves splitting to base, septa almost free from axis; seeds 0.5–0.6 mm long, subtrigonal-ellipsoid, yellowish brown, finely and closely reticulate, reticulations tangentially finely undulate. Figure 7.

This very distinct species is unique in the genus for the form of the anther appendages which are broad, very irregularly shaped crests which, in some anthers, may be absent on one side (Figure 7I). They are remarkable in sometimes being larger above the point of attachment to the theca and therefore totally ascending.

The superficial facies of the calycine, open-mouthed flowers with manifest stamens would place the species in the section *Eurystoma* of *Flora capensis* (Guthrie & Bolus 1905) where it shows some resemblance to several species which occur in the same area: *E. calycina*, *E. brevicaulis* and *E. costatisepala* H.A. Baker. These latter species have complex dendroid hairs on many parts of the plant and have long pedicels. *E. tarantulae* has a sparse complement of short fine simple hairs and almost sessile flowers. The style is also unusual in being apically papillate, a condition found only in the section *Platyspora*.

E. tarantulae appears to be very restricted in its distribution, being known only in the Hex River Mountains complex as two localized collections from Tarantula and Milner Peaks (Figure 8). It is recorded as growing on stony ground where it forms low, spreading shrublets. Flowers from early August to late in October.

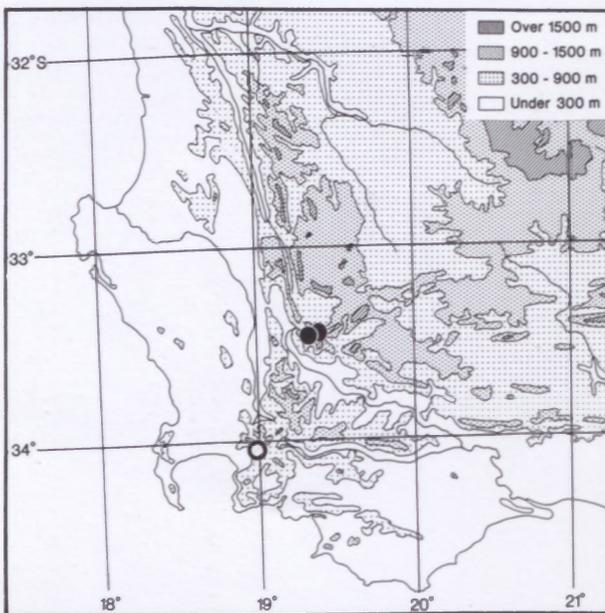


FIGURE 8.—The known distribution of *Erica tarantulae*, ●; and *E. magistrati*, ○.

Specimens examined

WESTERN CAPE.—3319 (Worcester): Ceres Dist., peak E of Taran-tula Peak, stony plateau, 1 200–1 370 m. (–AD), 7-10-1953, *Esterhuysen* 21829 (BOL, K, MO, PRE, STE); Ceres Dist., Hex River Mtns, Ezelsfontein, stony N slopes of Milner Peak, 900 m. (–AD), 24-08-1958, *Esterhuysen* 27859 (BOL). Without locality: *Stokoe* 7889 (BOL).

5. *Erica hottentotica* E.G.H. Oliv., sp. nov. (§ *Ephebus*), *E. parviflorae* L. affinis sed sepalis ovatis petaloideis roseis, corolla puberula, stigmathe cyathiformi differt. Figure 9.

TYPE.—Western Cape, 3418 (Simonstown): Somerset West area, Hottentots-Holland Mtns, Somerset Sneeuw-kop, (–BB), *Stokoe* 6641 (BOL, holo.; K, PRE, STE).

Erect compact shrub 0.5–1.0 m, rarely up to 2.5 m, tall. Branches erect, leafy with numerous dense lateral short shoots, softly puberulous, without infrafoliar ridges, bark flaking irregularly when old. Leaves 4-nate, erect, imbricate, 0.5–3.5 mm long, oblong-elliptic, subobtuse, flattened adaxially with a distinct sharp margin, convex and sulcate abaxially, with a few scattered short hairs mainly towards margins abaxially, adaxially hairy; petiole \pm 0.5 mm long, sparsely ciliolate. Flowers 1- to 4-nate terminal on short lateral branchlets, upright to pendent; pedicel \pm 2.0 mm long, puberulous; bract remote to median, 0.6×0.2 mm, oblong, not sulcate, sparsely puberulous; bracteoles 2, median, same as bract. Calyx 4-partite; segments 1.4×0.8 mm, ovate to lanceolate, slightly sulcate apically, puberulous, pink. Corolla 4-lobed, 3.0×2.0 mm, cyathiform to urceolate, puberulous, red, lobes \pm 0.5 mm long, rounded erect or slightly reflexed. Stamens 8, included; filaments \pm 1.5 mm long, filiform, with sigmoid bend just below anther, glabrous; anther dorsally attached near base, appendiculate, thecae 1.0×0.3 mm, oblong with acute apex, sparsely puberulous laterally and adaxially mainly towards base,

awns \pm 0.4 mm long, sparsely puberulous, pore half length of theca. Ovary 4-locular, 0.5×0.7 mm, oblate to obovate, slightly 8-lobed, emarginate, with basal nectary glands, with a few longish hairs apically, \pm 4 slightly erect ovules per locule; style \pm 4.0 mm long, glabrous, just exerted; stigma cyathiform with 4 apical stigmatic papillae. Fruit unknown. Figure 9.

This species is closely related to the common and widespread *E. parviflora* but can easily be distinguished by its broader, ovate, petaloid, pink sepals, finely hairy corolla and broad cyathiform stigma. The latter species has linear-lanceolate foliaceous sepals, a coarsely long-haired corolla and a small capitate stigma. The flowers of *E. hottentotica* are larger than those of *E. parviflora* although the form of the latter in the Hottentots Holland Mountains has fairly large flowers. *E. parviflora* is generally a scrambling plant in marshes, whereas the new species appears to form an erect sturdy shrub which may reach a height of 2.5 m (*Stokoe* 4009). There is also a resemblance to some forms of the common *E. sitiens* Klotzsch which has, however, a glabrous corolla, foliaceous sepals and a capitate stigma.

This species is confined to the higher reaches of the Hottentots-Holland Mountains above Somerset West, hence the name (Figure 6). It has been recorded with the following species, *E. magistrati*, on Langkloofberg frequenting similar habitats—moist southeast-facing slopes. The Hottentots-Holland Mountains host the largest number of species of *Erica*: 175 spp. have been recorded so far (Oliver *et al.* 1983). Flowers from September to late November.

Specimens examined

WESTERN CAPE.—3418 (Simonstown): Somerset West area, Hottentots Holland Mtns, (–BB); Langkloofberg, 1 220 m, (–BB), 30-10-1943, *Esterhuysen* 9150 (BOL, STE); The Triplets, 1 220–1 520 m, (–BB), 31-10-1943, *Esterhuysen* 9173 (BOL); Klein Valleiberg, 1 070–1 220 m, (–BB), 11-10-1962, *Esterhuysen* 29868 (BOL, K, PRE);

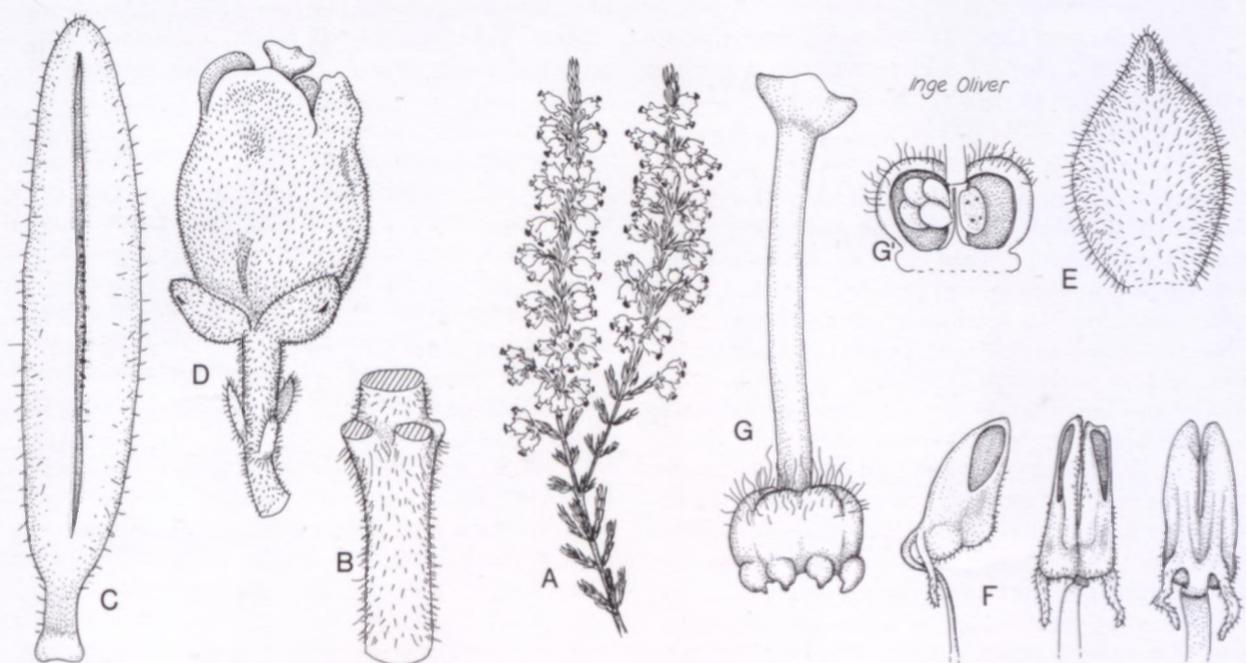


FIGURE 9.—*Erica hottentotica*. A, flowering branch, $\times 1$; B, stem; C, leaf; D, flower; E, sepal; F, anther, side, front & back views; G, gynoecium; G', ovary, cut longitudinally. B–E, $\times 12.5$, F, G & G', $\times 25$. All drawn from *Esterhuysen* 9150.

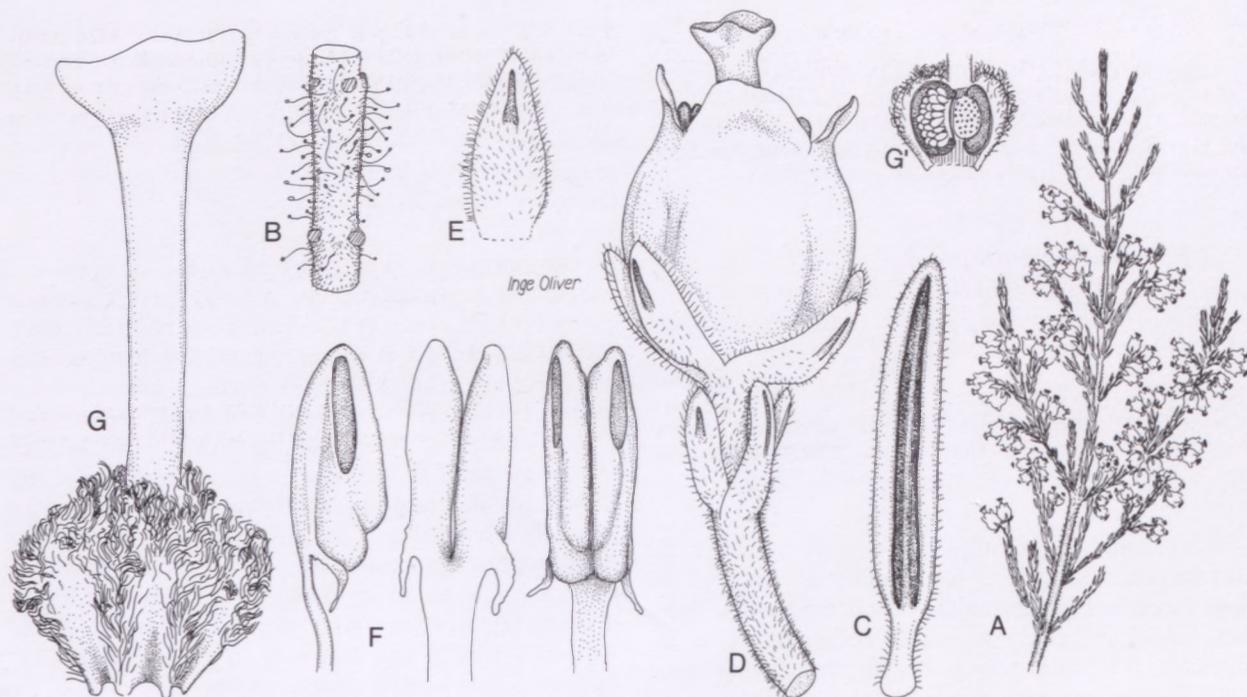


FIGURE 10.—*Erica magistrati*. A, flowering branch, $\times 1$; B, stem; C, leaf; D, flower; E, sepal; F, anther, side, back & front views; G, gynoecium; G', ovary, cut longitudinally. B–G', $\times 25$. All drawn from Esterhuysen 33921.

Landdrost Kop, 910–1 070 m, (–BB), 30-09-1979, *Esterhuysen* 35249 (BOL, K); vicinity of Landdrost Kop & Somerset Sneeuwkop, (–BB), 11-1934, *Stokoe* 4026 (BOL, PRE); Somerset Sneeuwkop, (–BB), 11-1938, *Stokoe* 6641 (BOL, K, PRE, STE); *ibid.*, *Stokoe* 6826 (BOL); between Somerset Sneeuwkop & Landdrost Kop, (–BB), 26-09-1943, *Stokoe* 8927 (BOL).

6. *Erica magistrati* E.G.H. Oliv., sp. nov. (§ *Arsace*), *E. salaci* Salisb. affinis sed ab ea ramis ramulisque pilis multis brevissimis et longis glandulosis tectis, foliis pilis simplicibus, corolla urceolatiore et ovario villosa differt. Figura 10.

TYPE.—Western Cape, 3418 (Simonstown): Caledon Div., Hottentots-Holland, Langkloofberg, SE slopes near water, 910–1 220 m, (–BB), 30-10-1943, *Esterhuysen* 9145 (BOL, holo.; PRE, STE).

Erect woody shrub 0.6–1.8 m tall. *Branches* densely puberulous, the older with many long spreading stouter gland-tipped hairs intermixed, without infrafoliar ridges, bark splitting irregularly with age. *Leaves* 3-nate, imbricate to spreading, 4.0×0.8 mm, oblong-elliptic, elliptic in section with rounded margins, slightly open-backed, apex subacute sometimes the younger ending in a long gland-tipped hair, the younger pubescent with adpressed hairs, becoming glabrous abaxially, with scattered short hairs, marginally rarely also with long stouter gland-tipped hairs; petiole ± 0.8 mm long, ciliolate. *Flowers* mainly 3-nate, terminal on short lateral branchlets 0.5–10.0 mm long, erect to slightly spreading; pedicel ± 3 mm long, softly puberulous; bract median to approximate, lanceolate, 2.0×0.6 mm, sulcate in upper half, puberulous, white; bracteoles opposite, just above the bract, like bract but smaller. *Calyx* 4-lobed very slightly fused at base, lobes 2.0×0.6 mm, ovate, acute, sulcate in upper third, puberulous and ciliolate, white. *Corolla* 4-lobed, 3.0×2.5

mm, urceolate to cyathiform, glabrous or very rarely with a few short hairs, lobes ± 0.5 mm long, rounded, erect to slightly reflexed. *Stamens* 8 included; filaments filiform, 2.5×0.5 mm, erect, subsigmoid below anther, glabrous; anthers erect, placed just above ovary, dorsally attached near base, appendiculate, thecae 2.5 mm long, narrowly ovate-oblong, glabrous, crests ± 0.6 mm long, slightly serrate, attached at top of filament, pore half length of theca; pollen in tetrads. *Ovary* 4-locular, 8-lobed, broadly obovate, emarginate, 2.2×2.2 mm, villous mainly in upper half and in lower half along lobe edges, with no nectary glands at base, 15–20 ovules per locule spreading from a rounded central placenta; style ± 2.5 mm long, straight, glabrous, exserted; stigma cyathiform with 4 central stigmatic papillae, glabrous. *Fruit* unknown. Figure 10.

This species in the section *Arsace* is allied to *E. salax* Salisb. which has been collected only a few times in the same area. The latter has no long gland-tipped hairs on the branches, but has very short dendroid or gland-tipped marginal hairs on the leaves, a more cyathiform corolla and glabrous ovary. We have been able to examine Salisbury's type (*Masson s.n.*, Herb. Salisb. in Kew) to verify the correct identity of the few collections which were tentatively identified as this species.

There are also slight resemblances to *E. sphaeroidea* Dulfer and *E. argyrea* Guthrie & Bolus from the same area, but these have puberulous corollas and numerous gland-tipped hairs on various other parts of the plant in addition.

E. magistrati is confined to the mountains in the Stellenbosch/Somerset-West area (Figure 8) where it is found mainly on south-facing slopes from 450 m to 1 068 m in situations receiving extra moisture. Several collections are

associated with Landdrostkop (Magistrate's Head) in the Hottentots-Holland range, hence the name of the species. Here there is often a good deposition of moisture from the dense moving clouds produced by the strong southeast winds which occur frequently during the summer months. Flowers from August to December.

Specimens examined

WESTERN CAPE.—3318 (Cape Town): Stellenbosch Dist., Jonkershoek, Langrivier, 760 m, (–DD), 08-1965, *Kerfoot* 5392 (PRE, STE); 3418 (Simonstown): Hottentots-Holland Mtns, Langkloofberg, 910–1 220 m, (–BB), 30-10-1943, *Esterhuysen* 9145 (BOL, PRE, STE); Landdrost Pinnacle above Lourensford, 460 m, (–BB), 7-09-1975, *Esterhuysen* 33921 (BOL, K, PRE, STE); Jonkershoek, beyond Second Waterfall, 1 220–1 520 m, (–?BB), 11-1925, *Krige in STE* 2130 (BOL); Somerset

Sneeuwkop, Landdrost Kop & environs, (–BB), *Stokoe* 6826 (BOL); *ibid.*, 11-1938, *Stokoe* 6827 (BOL, SAM); Landdrost Kop, (–BB), 26-09-1943, *Stokoe* 8933 (BOL, K, PRE). 3419 (Caledon): Jonkershoek, ridge between Eerste River Kloof and Victoria Peak, 1 070 m, (–AA), 7-09-1979, *Esterhuysen* 35242 (BOL, K).

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