

## ERICACEAE

### A NEW SPECIES OF *ERICA* FROM THE BREDASDORP DISTRICT

***Erica occulta*** *E. G. H. Oliver*, sp. nov. in genere singularis propter lobos longos corollae et tubum brevem, habitum similitudine specierum *Aspalathi*, flores occultos et alternationem bractearum foliorumque.

Fruticulus dense ramosus, erectus, ramis caespitosis vel pulvinatis, caulibus principalibus paucis. *Rami* tantum vetustiores visibiles, suberosi juniores foliis omnino tecti, internodis brevissimis, apparenter glabris. *Folia* 3(?4)-nata, caespitosa ad extremis ramulorum, imbricata erecta vel parum incurva ad  $9 \times 1$  mm cum petiolo, lineares acuta ad obtusa, complanata versus basim, rotundata versus apicem,

minute sulcata, fere sine distinctione inter laminam petiolumque, longe ciliata in marginibus et in pagina abaxiali et versus apice in pagina adaxiali, aliter glabra; petiolo incolorato plano ciliato; folia aggregata alternantesque bracteis parvis; bracteis breve triangularibus ad spathulatis ad ovatosubacuminatis ad 2 mm longis ciliatis longe ciliatis apice aliter glabris, albis mox fuscescentibus, persistentibus. *Flores* singulares terminales in ramulis, subtenti bracteis; pedicello brevi ad 1 mm longo glabro albo; bracteolis 3,  $1,6-1,8 \times 1$  mm plus minusve oblongis adpressis ad basim calycis, mediano parum brevioribus subacuto, lateralibus obtusis apice obliquo, omnibus

glabris ciliatisque subviridibus vel albis. *Calyx* 4-partita; segmentis ad  $3,5 \times 2$  mm ellipticis ad obovatis obtusis ad subacutis sulcatis, versus apice incurvis et carinatus, glabris in dimidio superiore ciliatis, viridibus. *Corolla* profunde lobata, 7–8 mm longa, alba in dimidio inferiore subviridis superiore mox flavescens, glabra; tubo 1–2 mm longo et ad 2 mm lato breve cyathiforme; lobis erectis ad 6 mm longis, oblongis, parum contractis infra medium obtusis. *Stamina* 8 libera; filamentis linearibus circa 3,5 mm longis glabris; antheris inclusis ad 1,9 mm longis anguste oblongis cum vel sine base gibba in fronte, terminalibus ad subterminalibus, glabris hinnuleis, aristis decurrentibus; aristis ad 1 mm longis breve liberis; poro magno ad 1,3 mm longo; granis pollinis in tetradis formantibus massae pollinis. *Ovarium* 4-cellulare ovulis numerosis,  $1,2 \times 1$  mm, late ovoideum ad ellipsoideum, interdum apice distincto breve cylindraceo, glabrum, album; stylo 5–6 mm longo exserto; stigmatibus initio simplicibus demum minute peltato processibus quattuor, viridi fusciscenti.

TYPE: Cape, Bredasdorp District, limestone hills near Pearly Beach, 7 Sept. 1974, *Esterhuysen* 33606 (STE, holo, BOL; K; MO; NBG; PRE).

Shrublet growing from rock crevices on cliffs, densely branched, erect with main stems adpressed to the rock faces or caespitose and cushion-like with few to several main stems. *Branches*, only the older visible, gnarled and covered with thick dark brown irregular cork and the remnants of old leaves, the younger completely covered with leaves with the

internodes almost non-existent, apparently glabrous. *Leaves* 3(?4)-nate crowded together at the ends of branches with dead leaves persistent on some older branches, imbricate erect and slightly incurved, up to  $9 \times 1$  mm including the petiole, linear, acute to obtuse, flattened towards the base, rounded towards the apex, inconspicuously sulcate, with almost no distinction between the lamina and petiole, long-ciliate on the edges and on the abaxial surface and towards the apex on the adaxial surface, otherwise glabrous; petiole colourless, flat, ciliate; leaves alternating in groups with small bracts which subtend the flowers; bracts from shortly triangular to spatulate to ovate-subacuminate, up to 2 mm long, ciliate, long ciliate at the apex otherwise glabrous, white soon turning brown, persistent. *Flowers* borne singly on the ends of main branches and subtended by bracts; pedicel short up to 1 mm long glabrous whitish; bracteoles 3,  $1,6-1,8 \times 1$  mm, more or less oblong, adpressed to the base of the calyx, the median slightly shorter subacute, the laterals obtuse with an oblique apex, all glabrous and ciliate, pale green or whitish. *Calyx* 4-partite; segments up to  $3,5 \times 2$  mm, elliptic to obovate, obtuse to subacute, sulcate at the apex, incurved and boat-shaped, glabrous, ciliate in the upper half, green. *Corolla* deeply 4-lobed, 7–8 mm long, white or colourless in the lower half, pale green in the upper half soon turning yellowish, glabrous; tube 1–2 mm long and up to 2 mm wide, shortly cup-shaped; lobes erect, up to 6 mm long, oblong, slightly contracted  $\frac{1}{3}$  of the way up, obtuse. *Stamens* 8, free; filaments elongate linear, about 3,5 mm long, more or

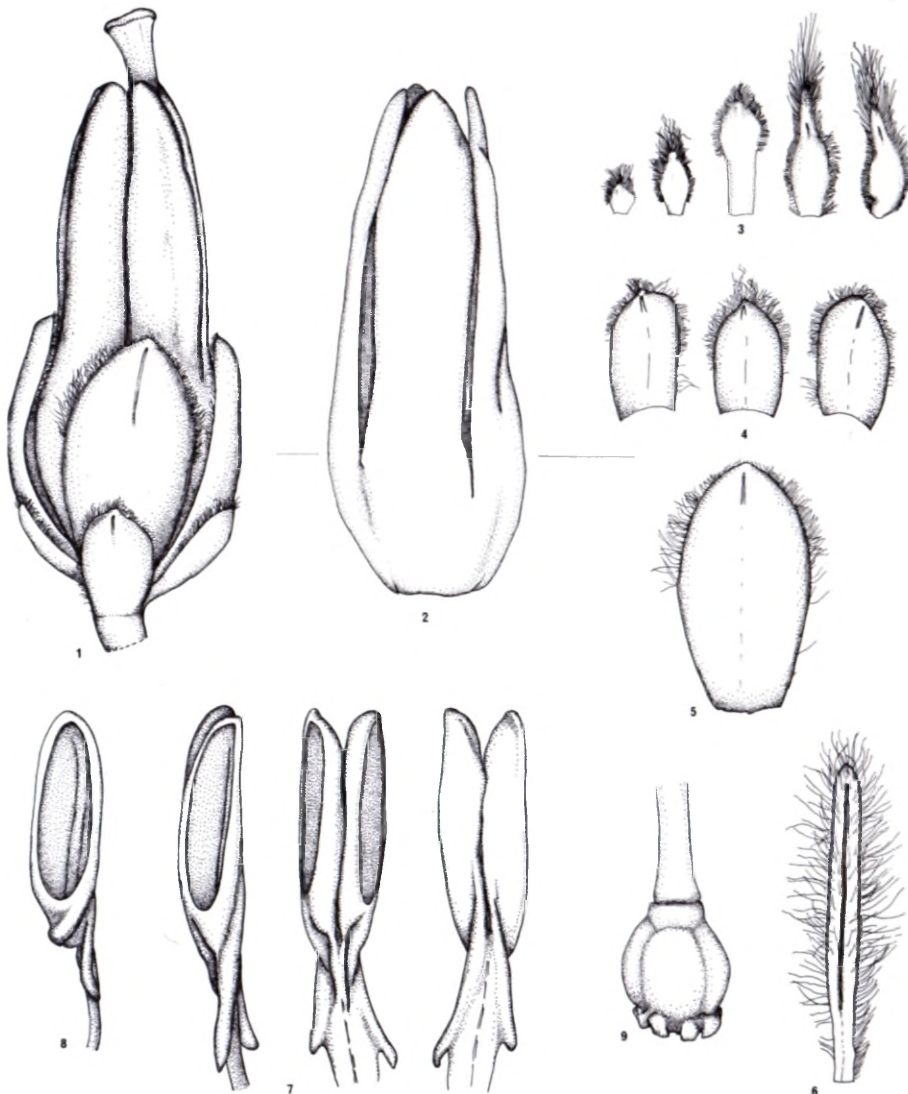


FIG. 8.—*Erica occulta*. 1, flower,  $\times 5$ ; 2, corolla,  $\times 5$ ; 3, series of bracts,  $\times 5$ ; 4, bracteoles,  $\times 5$ ; 5, sepal,  $\times 5$ ; 6, leaf, abaxial view,  $\times 2$ ; 7, anther, side, front and back views,  $\times 10$ ; 8, ovary,  $\times 5$ . All drawn from *Esterhuysen* 33606 (STE).

less straight or curved outwards just above the middle, glabrous, colourless; anthers included, up to 1,9 mm long, narrowly oblong with or without a gibbous base in front, terminal to subterminal, glabrous, pale brown, decurrent-aristate; awns up to 1 mm long, shortly free with tips slightly spreading; pore large up to 1,3 mm long; pollen grains in tetrads forming pollen masses. *Ovary* 4-celled with numerous ovules, 1,2 × 1 mm, broadly ovoid to ellipsoid, sometimes with a distinct short cylindrical apex up to 0,4 × 0,7 mm below the base of the style, glabrous, white; nectariferous disc present, colourless; style 5–6 mm long, cylindrical, white turning brown, exserted; stigma at first simple becoming minutely peltate with four protuberances arising from its centre, green becoming brown. FIG. 8.

CAPE.—3419 (Caledon): limestone hills near Pearly Beach (-DA), 8 Oct. 1972, *Esterhuysen* 32989 (BOL); 9 Sept. 1974, *Esterhuysen* 33606 (BOL; K; MO; NBG; PRE; STE).

This remarkable species recently discovered by Miss E. Esterhuysen of the Bolus Herbarium is very distinct in the genus for its tufted cushion-like habit, almost hidden flowers and much divided corolla.

The latter condition immediately brings to mind a similar one occurring in *Erica lanuginosa* Andr., which is a species of uncertain position in the Ericoideae. In *E. lanuginosa* the corolla lobes are very large, but each has a large gibbous base and unique stiff inward projecting sinus.

Apart from this superficial similarity, *Erica occulta* bears no close relationship to any other species in the genus and its position in a section of the genus is uncertain. For convenience, it will probably be best to

place the species in the section *Eurystegia* with *E. lanuginosa* despite the fact that it has such small flowers. The general appearance of the flower is also similar to species such as *E. bodkinii* and *E. grisbrookii*, which occur in the hills of the Caledon and Bredasdorp districts.

The leaves of *E. occulta* are extremely crowded together at the ends of the branches; so much so that the internodes are almost non-existent. It is thus difficult to determine the number of leaves per whorl. It would appear that they are 3-nate. The crowded tufted leaves and the almost hidden cream flowers give the species the appearance of some species in the genus *Aspalathus*; in fact its true identity is hidden until one makes a close examination of the material.

The possession of bracts is an unusual feature in the genus *Erica* shared only by a few species. Normally in the genus the flowers alternate with the leaves and are not subtended by any vegetative organ and no bracts are present. In *E. occulta*, however, there are whorls of bracts, distinct and unlike the leaves, alternating with the leaves. These bracts occur at the ends of the branches at the time of flowering and one of them subtends the single flower. Among the remaining bracts there are two buds which later develop into new branches.

In the fresh material examined the pollen remained aggregated in clumps. This was the case in all of the flowers examined but may have been an unusual occurrence. I have not seen this in other species in the genus.