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PLANTAE NOVAE AFRICANAE

"Ex Africa semper aliquid novi."—*Pliny*.

SERIES VI.

By

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and

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***Oxalis blastorrhiza***, Salter (Oxalidaceae) § Tripartitae (Lineares).

*Planta* parva, gracillima, 3—5 cm. alta, caule exserto. *Bulbi* late subuloidei vel ovoideo-subuloidei, saepe leviter tortuosi, ad 4·5 cm. longi, juniores inter bulborum seniorum tunicas imbricantes papyraceas exorientes. *Rhizomata* plerumque fascicularia, ad 6 cm. longa, squamis parvis amplexicaulibus satis numerosis et radiculis paucis induta. *Caulis* gracilis, rigidus, ad 4 cm. longus, rare ramosus, atro-viridis, minute pubescens, squamis 1—2 instructus. *Folia* 6—12, ad caulis apicem aggregata, petiolis pubescentibus 0·5—1·5 cm. longis: foliola lineari-oblonga, saepe leviter cuneata, conduplicativo-falcata, emarginata, 5—9 mm. longa, 1·5—3 mm. lata, supra glabra, infra pubescentia, ciliata. *Pedunculi* uniflori, pauci, 5—8 mm. longi, pubescentes, ad apicem bibracteati bracteis parvis subulatis ciliatis, calycem saepe imbricantibus. *Sepala* late lanceolata, 2·5—3 mm. longa, pubescentia, crispato-ciliata, inferne purpureo-marginata, ad apicem nigrescentia, callis 2 apicalibus elongatis induta. *Corolla* 1·2—1·5 cm. longa, pallide lilacea, tubo subanguste infundibuliforme luteo: petala spathulata, 2·5—3 mm. lata., venis violaceis notata, marginibus, in unguiculae medio, striis purpurcis, fere 1 mm. longis, ornatis. *Filamenta* (parte connata inclusa) exteriora 2—3·5 mm., glabra, interiora 3—6 mm. longa, glandulosa, edentata. *Ovarium* ovoideum, fere 1 mm. longum, in dimidio superiore pubescens, ecallosum, stylis ad basin pubescentibus, superne pluricellulari-pilosis. *Capsula* globosa, loculis 2-ovulatis.

*Hab.* Cape Province: 4 miles north of Van Rhy'n's Dorp, Salter 5607 (*type* in Bolus Herbarium.)

An affinity of *O. tenella*, Jacq., but a more slender plant, differing in having much narrower pale lilac petals, rather coarser pubescence on the leaflets and in the shape and method of vegetative reproduction of

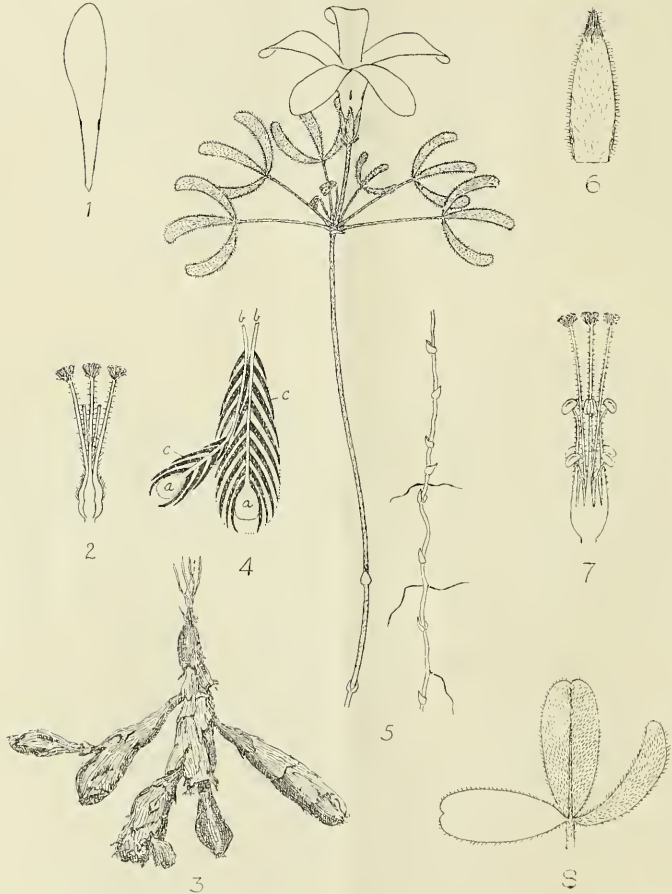


FIG. 1. *Oxalis blastorhiza* Salter. 1. Petal  $\times 2$ . 2. Gynoecium  $\times 6$ . 3. Bulb scales, natural size. 4. Diagram showing course of rhizomes through bulb tunics: a.a. living nuclei, b.b. rhizomes, c.c. bulb tunics (not to scale). 5. Plant  $\times 2$ . 6. Sepal  $\times 9$ . 7. Androecium  $\times 6$ . 8. Leaf, showing upper and under sides of leaflets  $\times 4$ . (Salter 5607.) Del. T. M. Salter.

the bulbs. The bulb structure, which sometimes superficially resembles a branched tuber, seems to be peculiar to this species.

The bulbillae are apparently developed on the lowest part of the rhizome within the imbricating tunics of the parent bulb, sending up their own rhizomes through these tunics to emerge at the common apex.

**Oxalis bullulata**, Salter (Oxalidaceae) § Tripartitae (Rotundatae).

*Planta* parva, fere glabra, 2—5 cm. alta (rare altior) caule non exserto. *Bulbus* ovalis vel subglobosus, apice basique acutus, leviter angularis, ad 1.4 cm. longus, tunicis rugosis bullatis brunneis. *Rhizoma* 1—3 cm.

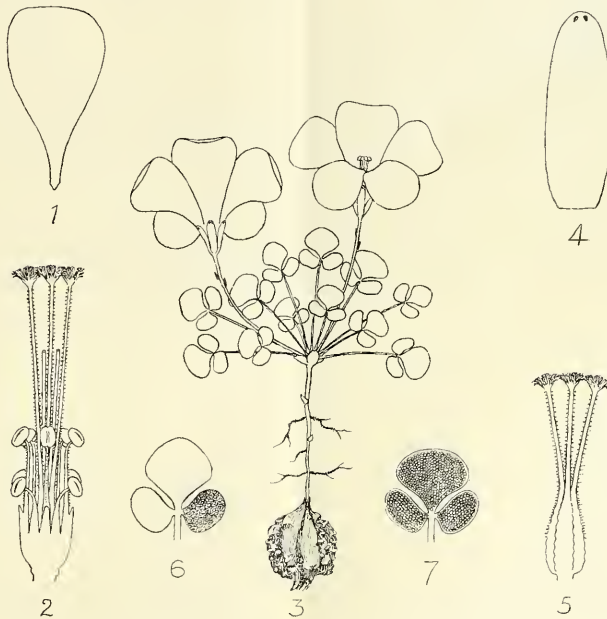


FIG. 2. *Oxalis bullulata* Salter. 1. Petal  $\times 1\frac{1}{2}$ . 2. Androecium  $\times 6$ . 3. Plant and bulb, natural size. 4. Sepal  $\times 6$ . 5. Gynoecium  $\times 6$ . 6. A leaf, under side  $\times 2$ . 7. A leaf, upper side  $\times 2$ . (Salter 5552.) Del. T. M. Salter.

longum, squamis paucis parvis instructum. *Folia* basalia, 10—18 : petioli 0.5—2 cm. longi, ad basin (infra articulum) leviter dilati, interdum, sicut pedunculi, sparse minuteque glanduloso-pilosi : foliola sessilia,

medium suborbiculare, antice rotundatum, ad basin late cuneato-atenuatum. interdum securiforme, 2—7 mm. longum et latum, lateralia oblique rotundata, minora, in vita nitescencia cellulis conspicuis, in siceo utrinque manifeste celluloso-lacunosa, glabra. *Pedunculi* 1—3 cm. longi, folia superantes, in dimidio superiore bibracteati bracteis minutis linearibus alternantibus. *Sepala* 4—6.5 mm. longa, oblonga vel lanceolato-oblonga, obtusa, submembranacea, glabra, callis 2—4 apicalibus instructa. *Corolla* 1.5—2.1 cm. longa, lutea, tubo breve late infundibuliforme colore: petala e basi breviter unguiculata ( $\frac{1}{3}$  laminae) cuneato-obovata, subtruncata 0.8—1.2 cm. lata. *Filamenta* (parte connata inclusa) exteriora 2.2—4.5 mm., glabra, interiora 3.5—7 mm. longa, glanduloso-pilosa, in forma medio-stylosa edentata, in ceteris breviter dentata, longissima e corollae tubo exserta. *Ovarium* ovoideo-oblongum, in dimidio superiore glandulosum, ecallosum, stylis glandulosis. *Capsula* fere 4 mm. longa, loculis multi-ovulatis.

*Hab.* Cape Province: Namaqualand; 10 miles north-west of Steinkopf, flowers June-July, *Salter* 5552 (*type* in Bolus Herbarium): Van Rhy'n's Dorp Div.; 11 miles south of Nieuwerust, *Salter* 2513, 3387, Vlermuisklip, 968: S.W. Africa; Buchberge, *Dinter* 6372 (*O. parvicormus*, M.S.).

This species may be recognized by its bulb, the outer tunics being wrinkled and puckered. It is perhaps nearest to *O. inaequalis*, Weintroub, but besides the difference in the bulb, the corolla tube is wider, the claws of the petals much shorter in proportion to the lamina and the styles are also shorter. It is also near *O. bella*, R. Kunth, which has, however, a narrow elongate bulb, obovate leaflets and a white corolla.

The plants vary considerably in size, those from the Van Rhy'n's Dorp District being smaller, with leaflets rarely exceeding 3 mm. in length and there has been no tendency to enlargement in cultivation. The difference is scarcely sufficient to warrant any varietal distinction (v.v.s., v.v.c.)

*Dinter* 6372 which I attribute to this species was distributed and has been referred to under the *manuscript* name *O. parvicormus*, but as the mature bulbs are by no means the smallest among the South African *Oxalis*, I have considered it best to discard this name as unsuitable.

#### ***Oxalis lichenoides*, Salter (Oxalidaceae) § Tripartitae (Rotundatae).**

*Planta* minima glauca, omnino glabra, caule non exserto, ad 3.5 cm. alta. *Bulbus* ovoideus vel oblongus, ad 1.4 cm. longus, 5—6 mm. latus, manifeste alatus: tunicae ellipticae, longitudinaliter concavae, subnitentes, brunneae, marginibus undulate crenulateque aliformibus.

*Rhizoma* breve, gracile, inferne annorum praeteritorum tunicis vel bulbis, interdum in serie moniliforme obiectum, superne breviter glanduloso-pilosum, squamis minutis instructum. *Folia* basalia, numerosa: petioli graciles, ad 2 cm. longi, sicut pedunculi subpellucidi, ad basin

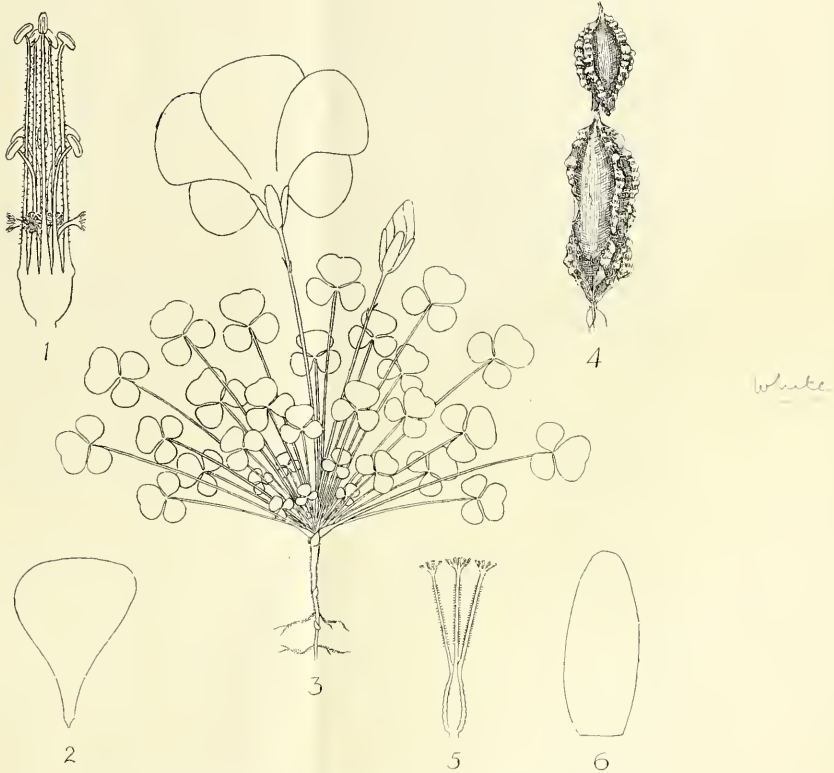


FIG. 3. *Oxalis lichenoides* Salter. 1. Androecium  $\times 6$ . 2. Petal  $\times 2$ . 3. Plant  $\times 2$ . 4. Bulb  $\times 2$ . 5. Gynoecium  $\times 6$ . 6. Sepal  $\times 8$ . (Salter 928.) Del. T. M. Salter.

articulati (in vita, sapa coccinea leviter tincti): foliola 3 (in sicco utrinque conspicue impresso-punctata), medium late rotundatum, nunc ad basin attenuatum, nunc leviter marginatum vel retusum, ad 2.5 mm. longum, 3.5 mm. latum, lateralia oblique suborbicularia, minora, integra. *Pedunculi* uniflori, ad 3.5 cm. longi, folia superantes, prope

apicem bibracteati bracteis alternantibus, subulatis, membranaceis, fere 1.5 mm. longis. *Sepala* elliptico-oblonga vel ovato-oblonga, obtusa, submembranacea, 3—4 mm. longa. *Corolla* 1.2—1.4 cm. longa, alba (in sicco interdum lutescens), tubo breve late infundibuliforme luteo: petala latissime cuneata ad basin leviter attenuata, antice subtruncata, 6—9 mm. lata. *Filamenta*, exteriora glabra, interiora glandulosa, levissime gibbosa vel edentata, longissima (parte connata inclusa) 7—7.5 mm. longa, e corollae tubo satis exserta (forma longistylosa non visa). *Ovarium* oblongum, 1.5 mm. longum, glabrum vel sparsissime glandulosum, loculis multi-ovulatis, stylis ad basin glabris, superne glandulosis.

*Hab.* Cape Province: Van Rhy'n's Dorp Div.; one mile south of Bitterfontein, flowers June, *Salter* 928 (*type* in Bolus Herbarium), Knecht's Vlaagte, 10 miles north of Zout River Bridge, 5460 (one plant).

A close affinity of *O. bella*, R. Knuth, differing in its lichen-grey foliage, proportionately shorter peduncles and very distinct undulate-winged bulbs. Its habit is also different for it is always found growing in the shade of small shrubby plants (especially mesembrianthemum) where it is very difficult to detect unless in flower. The broad crenulate wavy margins of the *concave* bulb-tunics are adpressed to one another, forming somewhat irregular wings to the bulbs and the old bulbs often persist on the rhizome, sometimes in a moniliform series one above the other. The petioles and peduncles exude a pale vermilion sap under pressure, a character never noticed in *O. bella*. The floral characters in Fig. 3 were drawn from *Salter* 5460.

**Oxalis Fourcadei**, Salter (Oxalidaceae) § Tripartitae (Oblongae).

*Planta* hirsuta, 4—6 cm. alta, caule non exserto vel breviter exserto. *Bulbus* ovalis, basi apiceque attenuatus, ad 2 cm. longus, tunicis exterioribus attenuato-acutis rigidis fuscis, interioribus brunneis. *Rhizoma* 0.5—2.5 cm. longum, in parte superiore hirsutum, squamis paucis amplexicaulibus indutum. *Caulis* nil vel ad 0.5 cm. longus, squamis 2—3 anguste ovatis amplexicaulibus cuspidatis, ad 0.9 cm. longis, hirsutis, ciliatis, instructus. *Folia* 2—8, basalia, adscendentia, petiolis 1—2 cm. longis, dense hirsutis: foliola 3, sessilia, linearia vel anguste oblonga, 1—2.5 cm. longa, 2—4 mm. lata, obtusa, lateralia in margine exteriori basale leviter obliqua, manifeste involuta, ciliata, punctis parvis numerosis aurantiacis (in sicco atris) marginaliter notata, utrinque hirsuta, supra laevigata, infra in nervo mediale conspicuo dense hirsuta, leviter impresso-punctata, saepe purpurea. *Pedunculi* ad 6, uniflori, 1.5—3.5 cm. longi, hirsuti, ad basin, infra articulum, teretes, ad apicem bibracteati bracteis linearibus alternantibus hirsutis rubellis vel rarius ebracteati. *Sepala* late lanceolata, 6—8 mm. longa, hirsuta, praecipue

in dimidio superiore purpureo-marginata, ecallosa. *Corolla* 1.7—2.0 cm. longa, alba. tubo luteo: petala e basi unguiculata leviter attenuata, superne obovata. fere 7 mm. lata, ad apicem acutiusculum callis paucis aurantiacis ornata. *Filamenta* pilosa vel fere glabra (parte connata inclusa), exteriora 2 mm., interiora 3—4.5 mm. longa, breviter dentata (forma brevistylota non visa). *Ovarium* ovoideo-oblongum, fere 2 mm. longum, in dimidio superiore pilosum, ad apicem callis 10 oblongis ornatum, loculis 8—9-ovulatis, stylis plus minusve pilosis.

*Hab.* Cape Province: Uniondale Div.; Kamanassi Hills, 8 miles west of Avontuur, 3,100 ft.. Oct., 1933. *H. G. Fourcade* 5063 (*type* in Kew Herbarium).

An affinity of *O. algoensis*. E. and Z. (E. and Z. 704!) but differing in the shape of the leaflets which are linear or narrow-oblong, the medial obtuse at the base and not tapering cuneately and the lateral are less unequal sided. In the dried state the leaflets are smooth and show no signs of collapsed cells on the upper surface and only very slight signs on the lower, while in *O. algoensis*\* this character is very marked on both surfaces of the leaflets. The teeth on the inner filaments are much shorter and more obtuse. The density of the indument on the filaments, ovary and style is variable in this species.

***Oxalis anomala*, Salter (Oxalidaceae) § Cernuae (Purpuratae).**

*Planta* gracilis ad 18 cm. alta, caule non exserto. *Bulbus* globosus vel ovoideus, apice attenuatus vel rostratus, 1.5—2.7 cm. longus, tunicis exterioribus subligneis, longitudinaliter nervatis, plerumque minute bullatis, atro-brunneis. *Rhizoma* tenue, squamis late ovatis semiamplexicaulibus membranaceis indutum. *Folia* 10—30, basalia: petioli 2—6 cm. longi, graciles, sparse villosi, ad basin (infra articulum) squamiformes, villosi: foliola breviter petiolulata, latissime obcordata, ad basin cuneato-attenuata. antice ad  $\frac{1}{2}$ -incisa, 3—7 mm. longa, 0.5—1.1 cm. lata, supra glabra, infra villosa (in vita) livido-purpurascens. *Pedunculi* basales, *uniflori vel biflori*, folia valde superantes, sparsissime villosi, ad 11 cm. longi: bracteae 2—4, subulatae, 3—4 mm. longae, villosae, apice minute callosae: pedicelli 1 vel 2, 3—4.5 cm. longi, glabri. *Sepala* lanceolata vel late lanceolata, 5—7 mm. longa, glabra vel sparsissime villosa, callis

\*The medial leaflets in *O. algoensis* are variable in shape, elliptic-oblong, sometimes 4 times as long as broad, or shorter and somewhat rhomboid, but always tapering more or less cuneately to the base. There are many intermediates between this species and *O. collina*, E. and Z., which differs only in the shape of the leaflets, the medial being often broader than long and the undulate (not crenate) margin is not a constant character. I, therefore, believe the two to be conspecific. In both cases Sonder describes the under surface of the leaflets as tomentose, but he seems to have been deceived by the scurfy appearance of the collapsed cells beneath the hairs which gives them at first glance a matted appearance.

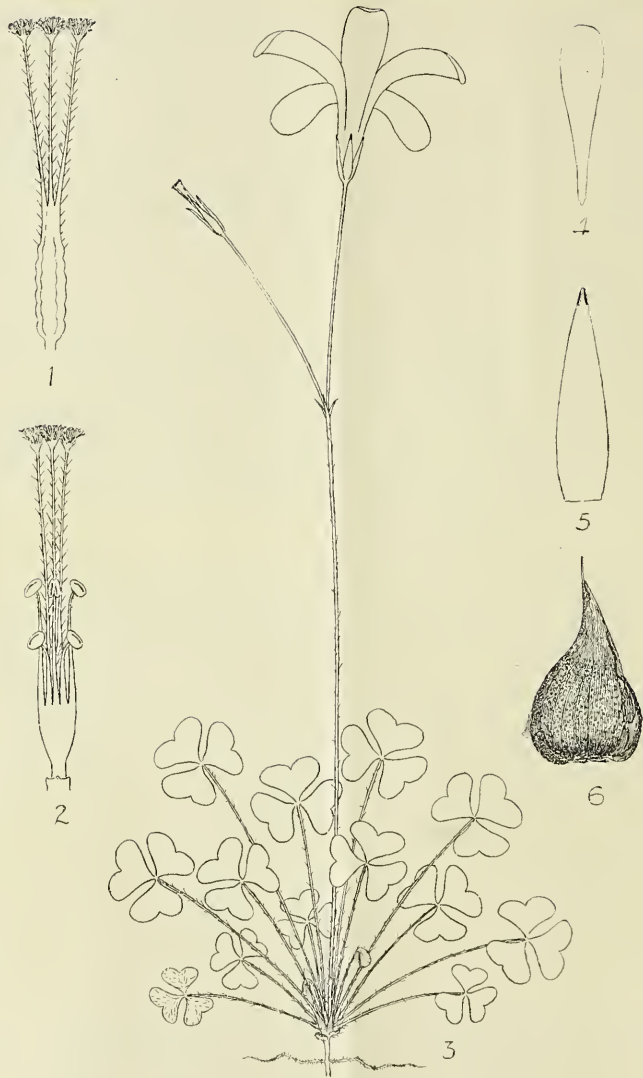


FIG. 4. *Oxalis anomala* Salter. 1. Gynaecium  $\times 6$ . 2. Androecium  $\times 6$ . 3. Plant, natural size. 4. Petal, natural size. 5. Sepal  $\times 5$ . 6. Bulb, natural size (Salter 2334.) Del. T. M. Salter.



2 elongatis aurantiaciis apice instructa. *Corolla* 2·1—2·8 cm. longa, roseo-violacea, tubo angusto viridi-luteo cum laminis aequante: petala cuneato-spathulata, 6—7 mm. lata, leviter venata. *Filamenta* (parte connata inclusa) exteriora 3—5 mm., glabra, interiora 5—8·5 mm. longa, apice sparsissime glandulosa, edentata, longissima inaequalia. *Ovarium* oblongum, 2—3 mm. longum, breviter stipitatum, ad apicem, sicut styli, villosopubescent, loculis 6-ovulatis.

*Hab.* Cape Province: Swellendam Div.; near Warmbad, Barrydale, flowers June-July, *Salter* 2334 (type in Bolus Herbarium), *L. Bolus*, Bolus Herbarium 20110: Ladismith Div.; 10 miles south-west of Ladismith, *Salter* 2332.

An affinity of *O. caprina*, L., but differs in having less deeply divided leaflets, peduncles with one or at most two flowers, a much larger corolla with narrower petals and a very different bulb. (v.v.s., v.v.c.)

***Oxalis campylorhiza***, Salter (Oxalidaceae) § Tripartitae (Obcordatae).

*Planta* viscosa, caule exserto vel rare non exserto, sparse ramoso, ad 15 cm. alta. *Partes herbaccae* pilis capitatis, saepe pluricellularibus dense pilosae. *Bubus* globosus vel depresso-globosus, basi praemorsa, apice conico oblique etiam horizontaliter deflexo, ad 2 cm. altus, 3 cm. latus: tunicae imbricantes, sub-rigidae, ad basin diffusae, apice attenuato-aciculares, brunneae. *Rhizoma* 5—10 cm. longum, squamis paucis amplexicaulibus instructum. *Caulis* erectus, interdum bifurcatus, 2—12 cm. longus, nonnumquam e squamae vel foliorum caulinorum axillis breviter ramulosus. *Folia* satis numerosa, ad caulis vel ramulorum apices aggregata, rare 1—2 caulina, petiolis ad 2·5 cm. longis: foliola obcordata, inferne interdum subcuneata, medium breviter petiolulatum, lateralia sessilia, tenuia, nervata, 0·5—1 cm. longa, 5—9 mm. lata, supra glabra, infra et marginibus pilis pluricellularibus capitatis pilosa. *Pedunculi* 1—6, uniflori, terminales, 2—7 cm. longi, bracteati bracteis 1—2 (rare 0) minutis gracillimis 1—1·5 mm. longis. *Sepala* ovato-lanceolata, attenuata, valde acuta, subpellucida, 3—6 mm. longa, rare apice rubro-callosa, plerumque minute purpureo-maculata, ciliata. *Corolla* 1·3—2·2 cm. longa, alba vel rare rosea, tubo breve luteo: petala oblique cuneato-obovata ad basin breviter leviterque attenuata, antice oblique subtruncata, 6—10 mm. lata, unguiculae basi extrema purpurea, ad marginem exteriorem glanduloso-ciliata et saepe purpureo-maculata. *Filamenta* (parte connata inclusa) exteriora 2·5—4 mm., glabra, interiora 4—7 mm. longa, ad apicem glabra, inferne minute glanduloso-pilosa, breviter obtuseque dentata. *Ovarium* ovoideo-oblongum, 1·5—2·2 mm. longum, in dimidio superiore, sicut styli, glandulosum vel pluricellulari-pilosum, ecallosum. *Capsula* subglobosa, loculis 2—3-ovulatis.

*Hab.* Namaqualand ; 9 miles north-west of Steinkopf, flowers May-July, Salter 5553 (*type* in Bolus Herbarium) ; near Steinkopf, 5557 (pink), 5558 ; Springbok 897 ; about Kamieskroon 800, 860, 4601, 4606.

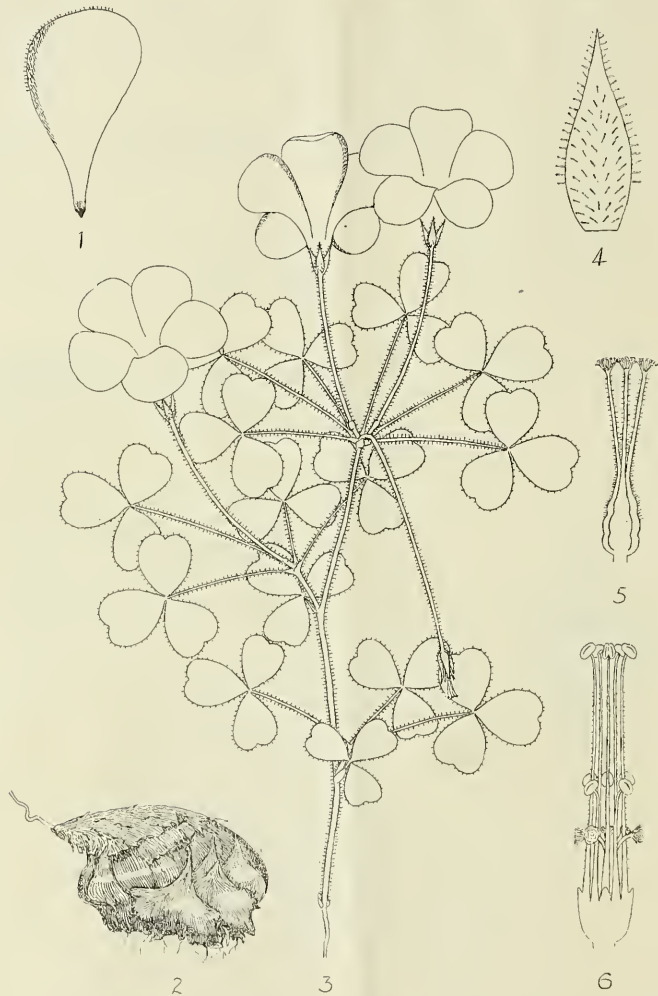


FIG. 5. *Oxalis campylorhiza* Salter. 1. Petal  $\times 1\frac{1}{2}$ . 2. Bulb, natural size. 3. Plant, natural size. 4. Sepal  $\times 6$ . 5. Gynoecium  $\times 6$ . 6. Androecium  $\times 6$ . (Salter 5553.) Del. T. M. Salter.

A very variable species allied to *O. amblyosepala*, Schltr., but more upright in habit. It differs in having sharply acute sepals and leaflets rather broader in proportion to their length. It is also probably an affinity of *O. ebracteata*, Savign., but differs in having apical peduncles and leaves, the latter with much longer petioles. The mature bulb, which is unlike any other that I have seen in this genus, is broader than it is long. The base is usually flattened and praemorse and the conical or attenuate apex is generally bent over nearly at right angles to the axis. The young bulbs are ovoid with the apex more or less upright. (v.v.s., v.v.c.)

(NOTE.—Several specimens of this plant have been distributed under the name *O. variiformis* M.S.)

**Oxalis kamiesbergensis**, Salter (Oxalidaceae) § Tripartitae.

*Herba* parva. fere 2 cm. alta, caule non exserto. *Bulbus* ovoideus, attenuatus, 1.5—2.5 cm. longus, tunicis papyraceis rugosis brunneis, apice acutis. *Rhizoma* ad 10 cm. longum, pallidum, squamis ovatis amplexicaulibus, ad 4.5 mm. longis indutum. *Folia* 10—30, basalia: petioli fere 1 cm. longi, breviter pilosi, ad basin (infra articulum) dilati: foliola 3, sessilia, lineari-oblonga vel cuneato-oblonga, conduplicativo-falcata, minute emarginata, 6—9 mm. longa, 2—3 mm. lata, supra glabra, infra pubescentia, nervo mediale conspicuo, ciliata, callis minutis inconspicuis atro-brunneis dense notata. *Flores* viventes 1—3. *Pedunculi* uniflori, satis numerosi, post anthesin deflexi, fere 0.5 mm. longi, rare longiores, pilosi, paulo infra calycem bibracteati bracteis subulatis ciliatis, fere 1.5 mm. longis. *Sepala* ovato-lanceolata vel lanceolata, saepe acuminata, 4—5 mm. longa, pubescentia, ciliata, apice inconspicue bicallosa. *Corolla* glabra, 1.7—2.2 mm. longa, rosea, ad fauces albescens. tubo infundibuliforme luteo: petala cuneata vel oblique cuneata, in parte inferiore leviter attenuata, antice rotundata obscure acutiuscula. *Filamenta* (parte connata inclusa) exteriora 3—7 mm. longa, glabra vel in forma longistylota sparse glandulosa, interiora 5.5—11 mm. longa, inaequalia, minute glandulosa, edentata, longissima e corollae tubo exserta. *Ovarium* ovato-oblongum, fere 1.3 mm. longum, inter angulos callis rubris notatum, in dimidio superiore pilosum, stylis ad basin pilosis, superne glandulosis. *Capsula* globoso-ovoidea, loculis 3-ovulatis.

*Hab.* Namaqualand: Kamiesberg Mts., 6 miles east of Kamieskroon in open grassy places, Salter 5513 (type in Bolus Herbarium).

This small plant is an affinity of the following (*O. albiuscula*, Salter, q.v.) but the leaflets are quite different in shape and the petals, rose red at the tip, pale gradually to white in the throat of the corolla above the yellow tube. Both might be placed in either of the two somewhat

artificial sub-sections *Oblongae* or *Lineares*. They do not appear to be closely related to any other species, though in some characters they seem to be nearest to *O. ciliaris*, Jacq. and *O. Mundtii*, Sond., both of which have, however, well developed above-ground stems.

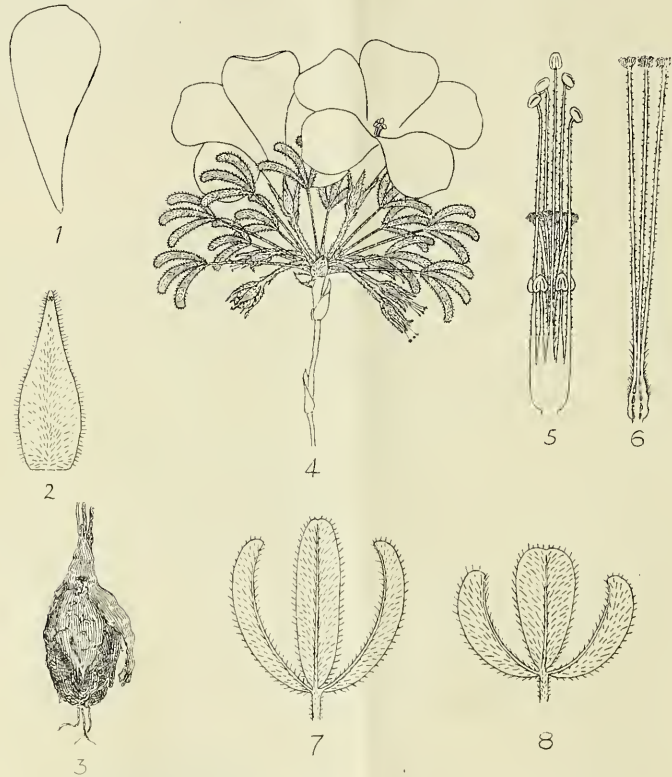


FIG. 6. *Oxalis kamiesbergensis* Salter. 1. Petal  $\times 1\frac{1}{2}$ . 2. Sepal  $\times 6$ . 3. Bulb, natural size. 4. Plant  $\times 1\frac{1}{2}$ . 5. Androecium  $\times 6$ . 6. Gynaecium  $\times 6$ . 7 and 8. Leaflets, under side  $\times 3$ . (Salter 5513.) Del. T. M. Salter.

***Oxalis albiuscula*, Salter (Oxalidaceae) § Tripartitae.**

*Herba* parva, ad 3 cm. alta, caule non exserto. *Bulbi* saepe congesti, globoso-ovoidei, acuti, ad 2 cm. longi, tunicis papyraceis rugosis fuscis. *Rhizoma* gracile, 3—10 cm. longum, squamis paucis parvis semi-amplexicaulibus instructum. *Folia* basalia, numerosa: petioli 1—2 cm. longi,

graciles, adpresso-pubescentes : foliola 2, sessilia, lineari-oblonga, basi apiceque acuta, mucronulata, 8—12 mm. longa, 1·5—2·5 mm. lata, subconduplicativa vel saepe involuta, supra glabra, infra adpresso-pubes-

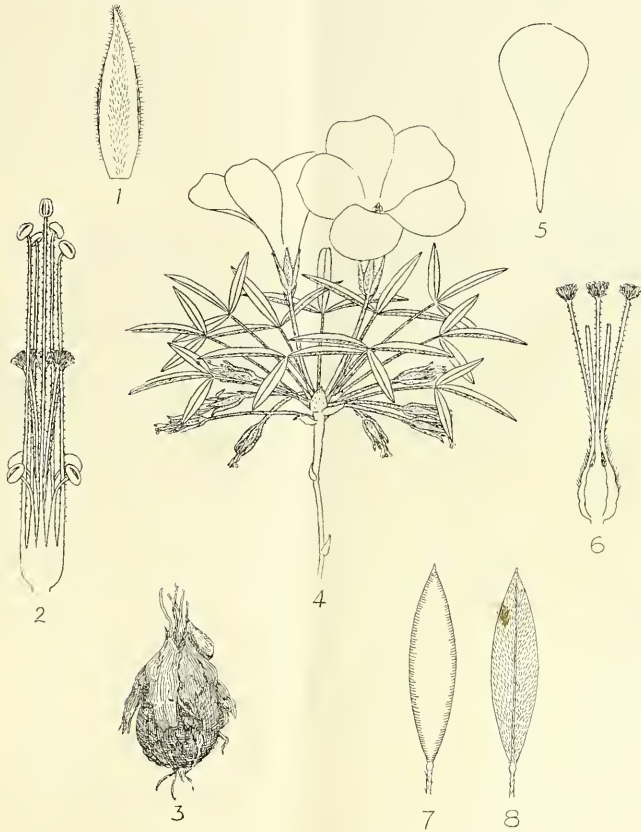


FIG. 7. *Oxalis abiuscula* Salter. 1. Sepal  $\times 6$ . 2. Androecium  $\times 6$ . 3. Bulb, natural size. 4. Plant  $\times 1\frac{1}{2}$ . 5. Petal  $\times 1\frac{1}{2}$ . 6. Gynaecium  $\times 6$ . 7. Medial leaflet, upper side  $\times 3$ . 8. Leaflet, under side  $\times 3$ . (Salter 4603.) Del. T. M. Salter.

centia, pilis incurvatis dense ciliata. Flores viventes 1—2, rare 3. Pedunculì uniflori, numerosi ad 35, post anthesin deflexi, folia plus minusve aequantes, sparse pubescentes, ad apicem bibracteati bracteis subulatis

1—1.5 mm. longis, ciliatis, saepe calycem imbricantibus. *Sepala* late lanceolata, interdum breviter attenuata, 4—5 mm. longa, rubescentia, ad medium pubescentia, ad margines glabra, ciliata, ecallosa. *Corolla* glabra, 1.6—2.3 cm. longa, alba, tubo infundibuliforme luteo: petala e basi leviter attenuata cuneato-obovata, antice obscure acutiuscula 0.7—1.0 cm. lata, rare roseo-marginata. *Filamenta* sparse glandulosa (parte connata inclusa) exteriora 3.5—6 mm., interiora 6—10 mm. longa, valde inaequalia, edentata. *Ovarium* ovoideum, 1.6 mm. longum, in dimidio superiore cano-pubescentis, ad apicem callis elongatis ornatum, stylis ad basin pilosis, superne glandulosis. *Capsula* subglobosa, loculis 2—3-ovulatis.

*Hab.* Namaqualand: 6 miles south of Kamieskroon, plentiful but very local, June 1934, *Salter* 4608 (*type* in Bolus Herbarium) and 5509; 13 miles south of Kamieskroon, *Salter* 5572.

This species is closely related to the foregoing (*O. kamiesbergensis*, *Salter*, q.v.) but differs mainly in the shape of the leaflets, which taper to a point at both ends and are slightly mucronate, an uncommon character in this genus. It also has a softer and shorter indumentum, white flowers, fewer calli on the ovary and ecallose sepals. As evidenced by the large number of dead flowers and capsules it has a long flowering season and flowers prolifically, although the plants had only 1, 2 or 3 flowers actually in bloom.

No. 4606 was found growing in arable land and the bulbs were all lying in the ground horizontally or slightly inverted, a peculiarity at first thought to be characteristic of the species. Later collecting in undisturbed ground shows, however, that the bulbs lie upright in congested masses formed by the yearly increase of the new bulbillae and it is probable that those first examined had been scattered and turned over by ploughing. The bulb illustrated is from No. 5509. (v.v.s., v.v.c.)

#### ***Erica Comptonii*, Salter (Ericaceae-Ericoideae) § Didymanthera.**

*Frutex* erectus rigidus, ad 60 cm. altus. *Rami* adscendentes, inferne nudi, conspicue cicatricosi, superne dense foliati, cano-tomentulosi. *Folia* 3-nata, erecto-patentia, linearia subtrigona, sulcata (petiolo incluso), 1.3—1.6 cm. longa, supra et ad margines prope basin minute tomentulosa, demum omnino glabra, superne serratulata, apice seta pallida, 1—1.5 mm. longa, denique caduca, aciculata, petiolis fere 2 mm. longis, albo-ciliatis. *Flores* 3-nati, subcernui, ramos ramulosque terminantes. *Pedunculi* 1.5—2 mm. longi, cano-tomentosi: bracteae 3, lineari-lanceolatae, calycem adpresse imbricantes, 0.9—1.2 cm. longae, alioque sepala similes. *Sepala* lanceolata, convexa, rigida, carinata, 0.9—1.1 cm.

longa, praecipue in parte inferiore minute ciliata, alba, ad apicem viridescens, apice seta pallida 1—1.5 mm. longa instructa. *Corolla* tubiformis, leviter inflata, ore vix constricto, 1.6 cm. longa, glabra, laeticolor, segmentis deltoideis, fere 1.6 mm. longis, viridibus, in floribus maturis abrupte reflexis. *Stamina* valde exserta: filamenta recta, compressa, alba, fere 2 cm. longa, 1 mm. lata: antherae prope basin dorsifixae, basi oblique acutae, lobis oblongo-oblancoelatis, 3.5 mm. longis, demum divaricatis, poro  $\frac{1}{3}$  lobi. *Ovarium* subglobosum, sessile, dense cano-sericeum: stigma parvum, turbinatum.

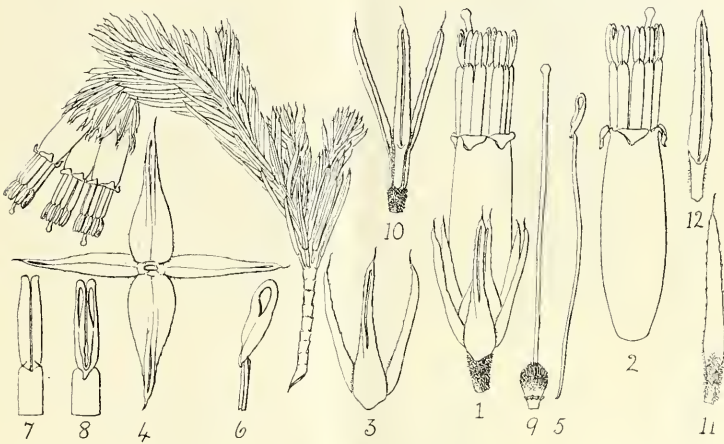


FIG. 8. *Erica Comptonii* Salter. 1. Flower  $\times 2$ . 2. Corolla  $\times 2$ . 3. Bracts  $\times 2$ . 4. Sepals, spread out  $\times 2$ . 5. Stamen, side view  $\times 2$ . 6. Anther, side view  $\times 2$ . 7. Anther, back view  $\times 4$ . 8. Anther, front view  $\times 4$ . 9. Gynaecium  $\times 2$ . 10. Whorl of young leaves  $\times 2$ . 11. Young leaf, front view  $\times 2$ . 12. Old leaf, back view  $\times 2$ . (*Compton* 6066.) *Del.* W. F. Barker.

*Hab.* Cape Province: Caledon Div.: among rocks, north-east slope of Hangklip, 1,400 ft., flowers Jan., *Compton* 6066 (*type* in Bolus Herbarium), *Pillans* 8183.

This species is an affinity of *E. Banksia*, Andr., but can easily be distinguished by its short deltoid leaf-green corolla segments, which, in the fully opened flower, are reflexed downwards against the upper end of the tube. It also differs in having much longer and proportionately narrower leaves and bracts, which, like the lanceolate sepals, are conspicuously bristle tipped.



FIG. 9. *Erica cygnea* Salter. 1. Flower  $\times 6$ . 2. Corolla  $\times 6$ . 3, 4, and 5. Bracts  $\times 6$ . 7. Stamen  $\times 6$ . 8. Anther, side view  $\times 12$ . 9. Anther, back view  $\times 12$ . 10. Gynacium  $\times 6$ . 11. Whorl of young leaves  $\times 6$ . 12. Old leaf, front view  $\times 6$ . 13. Old leaf, side view  $\times 6$ . (*Pillans* 8184.) *Del.* W. F. Barker.



**Erica cygnea**, Salter (Ericaceae-Ericoideae) § Euryloma.

*Frutex* erectus densus, ad 30 cm. altus, caule conspicuo cicatricoso. *Rami* glabri, foliati, aliquoties alterne recurvi et adscendentes, itaque cygneo-flexuosi. *Folia* 4-nata, erecto-patentia, recurva, dense imbricata, linearia, subtrigona, sulcata (petiolo incluso) 3—5 mm. longa, pilis longis hyalinis caducis, praecipue ad apicem, ciliata, apice seta brunnea, fere 3 mm. longa, aristata, petiolis 1 mm. longis, glanduloso-ciliatis. *Inflorescentiae* 5—11-umbellatae, cernuae, ramorum recurvorum apice positae. *Pedunculi* 4—5 mm. longi, rubescentes, minute glandulosi: bractee 3, foliaceae, petiolatae, 2·5—3·5 mm. longae, infima ad medium, ceterae in parte superiore positae, sicut sepala ciliatae, aristatae, viscosae. *Sepala* ovato-lanceolata, 2—3 mm. longa, viscida, viridia, minute glanduloso-marginata, apicem versus pilis hyalinis, quam sepala duplo longioribus ciliata, apice seta brunnea, fere 5 mm. longa, aristata. *Corolla* tubulari-campanulata, ore vix vel levissime constricto, 8 mm. longa, viscosa, rosea, in faucibus rubescens, segmentis acutis suberectis, ad 2·5 mm. longis. *Stamina* inclusa: filamenta ad apices valde latescentia, incurva, crispate albo-ciliata: antherae dorsifixae, subtriangulares, superne leviter attenuatae, basi oblique bilobulatae, minute scabrae, muticae, 1 mm. longae, poro dimidium lobi aequante. *Ovarium* obovoideum, glabrum, stylo ad apicem subsigmoideo, stigmate capitellato.

*Hab.* Cape Province: Caledon Div.: South side of crest of ridge forming the west base of Buffels Mountain, near Rooi Els, flowers Jan., *Pillans* 8184 (*type* in the Bolus Herbarium.)

This species can be recognised by the marked "swan's-neck" flexing of the branches. Although in some respects it does not conform to the existing conception of the section Euryloma, nor, indeed, has it the distinguishing character of the subgenus *Stellanthe*, viz.: stellato-patent corolla segments, it seems best to include it here owing to its close affinity to *E. Gysbertii*, Guthrie and Bolus. It has, however, a cernuous inflorescence, a shorter and more open-throated corolla, smaller sepals, ciliate filaments, very differently shaped anthers and a broader sessile ovary. It also resembles *E. lananthera*, L. Bolus, but differs in the leaves and stamens. (v.v.s.)

**Erica viscidiflora**, Esterhuysen (Ericaceae-Ericoideae) § Eurystoma.

*Frutex* robustus, erectus, glaber, rigidus, ad 50 cm. altus. *Caulis* ad 4 mm. lata, ramis erectis, virgatis, numerosis. *Folia* 3-nata, erecta, oblongo-lanceolata, obtusa saepe minute mucronata, dorso convexo, minute sulcata, glabra, long. 3·5—4·5 mm. lat. 1—1·5 mm., marginibus minute scaberulis. *Flores* 3—4-nata, ramulos breves terminantes, ad ramorum apices dense cumulati. *Pedunculi* puberuli, viscidi, long. 3 mm.,

bracteis 3, ovato-oblongis, concavis, glanduloso-marginatis, viscidis, albis, long. 2 mm., circa medium positis. *Sepala* appressa, ovata, viscida, alba, ad apicem carinata, long. 2.5—3 mm., glanduloso-marginatis. *Corolla* viscida, alba, tubo cyathiforme long. ad 3 cm., lobis valde recurvatis, deltoideis, long. ad 1.75 cm. *Filamenta* flexuosa, long. ad 1.75 cm. *Antherae* exsertae, basifixae, oblongae, basi oblique attenuatae, long. ad 1.75 mm., poro dimidium lobi aequante, cristis attenuatis. *Ovarium* depresso-globosum, hispidulum, stylo exserto, stigmate capitellato.

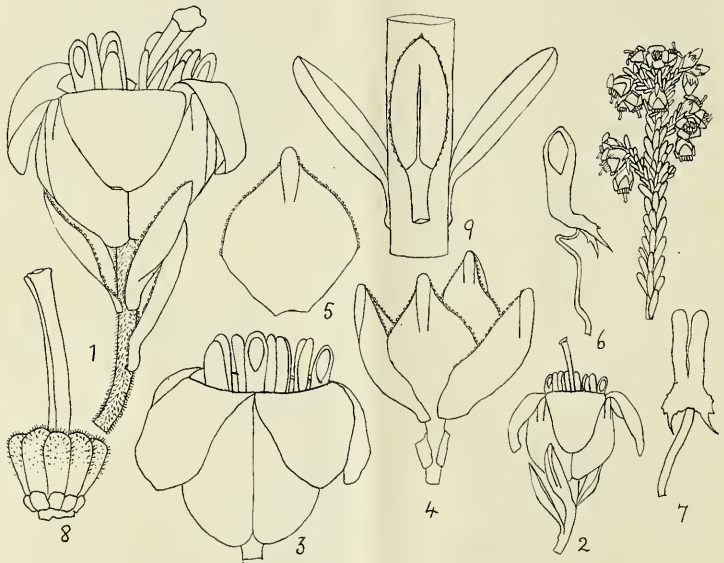


FIG. 10. *Erica viscidiflora* Esterhuysen. (Natural size.) 1. Flower  $\times 9$ . 2. Do.  $\times 4$ . 3. Corolla  $\times 9$ . 4. Calyx  $\times 8$ . 5. Sepal  $\times 8$ . 6. Stamen, side view  $\times 9$ . 7. Stamen, back view  $\times 9$ . 8. Gynoecium  $\times 9$ . 9. Whorl of leaves  $\times 8$ . (Esterhuysen 22.) Del. E. E. Esterhuysen.

*Hub.* Cape Province : Paarl Div., Gt. Drakenstein Mts., Drakenstein Peak, alt. c. 4,500 ft., *E. Esterhuysen* 22, October, 1935. (*Type* in Bolus Herbarium.) Summit of Drakenstein Mt., alt. 4,000 ft., *T. P. Stokoe*, Oct., 1922, Bolus Herb. No 17296.

This species is allied to *E. calycina*, Linn., from which it differs in the marked viscosity of the flowers. Its affinities place it naturally in § Eurystoma in spite of the viscosity.