

Notes and New Records of African Flowering Plants.

By

Various Authors.

ACANTHACEAE.

Justicia minima A. Meeuse, nom. nov.—*J. spargulaefolia* sensu C. B. Clarke in Dyer, Fl. Cap. 5, 1: 60 (1901), non T. Anders. Type: *Schlechter* 4267 (K, holo!, PRE, iso!).

A number of specimens of a *Justicia* had been collected in the Transvaal, which run in the key in Flora Capensis to "*J. spargulaefolia*" and indeed match *Schlechter* 4267 (PRE), the only gathering cited by Clarke. All these specimens, including the type gathering, came from a fairly restricted area in the Warmbaths, Waterberg and Potgietersrust districts of the Transvaal and it was felt that they might not be conspecific with the type of *J. spargulifolia* which was collected in Damaraland. Mr. W. Marais borrowed the holotype of the latter from T.C.D. (Dublin) and reported that it is undoubtedly a species of *Monechma*, probably *M. namaense* C. B. Clarke. The Transvaal specimens referred to above appeared to be without a valid name and the name "*minima*" was chosen because this reflects the very slender habit of this plant and the small flowers.

Characteristic of this species is the varying degree of pubescence. Specimens which are almost or completely glabrous are growing side by side with specimens which are rather densely pubescent with short stiff hairs. Very glabrous specimens also have glabrous inflorescences, but very hairy ones have a pubescent rhachis, pubescent bracts, bracteoles and calyx-segments.

The species can be best characterised as a miniature of the tropical African *J. linearispica* C. B. Clarke, which it resembles in habit, in the shape of the leaves and in the inflorescence, but all parts are considerably smaller. *J. minima* grows almost invariably in rock crevices on quartzite.

TRANSVAAL.—Locality not quite certain, but probably Potgietersrust district: Magalakwin River, *Schlechter* 4267 (K. holo!, PRE, iso!). Potgietersrust: between Bokpoort and Palala Heights, *Meeuse* 9349. Waterberg: Vyeboom near Nylstroom, *Meeuse* 9334, 9334a; near Naboomspruit, *Meeuse* 9736. Warmbaths: Hills North of Warmbaths on road to Nylstroom, *Smuts* and *Gillett* 3314, *Codd* 3448, *Repton* 793, *Sidey* 1329. (All cited specimens in PRE).

Justicia montis-salinarum A. Meeuse spec. nov. ex affinitate *J. orchiioides* L.f., *J. odorae* Vahl, *J. philipseae* Rendle et *J. lortaeae* Rendle, sed inter alia habitu, indumento puberulo, foliis linearibus, corolla extus pubescenti, capsula minute denseque hirtiuscula differt.

Suffrutex perennis densus multicaulis ramosissimus habitu semigloboso 30–60 cm. altus. *Caules* plurimi lignosi subteretes glabrescentes cortice griseo sublevi vel ubrugoso obtecti, ramulis ulterioribus flavo-viridibus suffruticosis subquadrangulatis

densissime minuteque puberulis vel farinosis, internodiis 1–2 cm. longis. *Folia* lineari-lanceolata subrigida integra sessilia subacuta subpungentia minute puberula in siccitate flavo-viridia 10–25 mm. longa et 1–2.5 mm. lata, nervo medio subtus prominulo. *Flores* solitarii in axillis foliorum superiorum sessiles. *Bracteolae* 2 lineari-lanceolatae attenuato-acutae minute hirtiusculae uninerves 5–6 mm. longae c. 0.75 mm. latae. *Calyx* profunde 5-fidus, firmiter herbaceus, dense minuteque hirtiusculus, tubo c. 1 mm. longo, lobis erectis subaequalibus lineari-lanceolatis attenuato-acuminatis uninervibus c. 4 mm. longis 0.5–0.75 mm. latis. *Corolla* alba intus in faucibus purpureo-maculata, extus dense minuteque strigoso-pubescentis intus in faucibus sparse pilosula, 8–9 mm. longa, labio antico 3-lobato in faucibus transverse ruguloso cum lobo mediano suborbicularibus lobis lateralibus oblongo-rotundis, labio postico concavo leviter emarginato. *Stamina* in faucibus affixa, filamentis ad basin pilosulis, loculis antherarum inferioribus distincte caudatis, granulis pollinis ut in *Justicia*, poris 3 instructis. *Ovarium* ad apicem hirtiusculum, stylo infra medium sparse pilosulo. *Capsula* dilute ochracea, dense minuteque strigoso-hirsutula, stipitata, 8–9 mm. longa, parte stipitata complanata c. 3.5 mm. longa. *Semina* rufo-brunnea tumida papilloso-verruculosa, c. 2.5 mm. longa, 1.5 mm. lata, 1.25 mm. crassa.

TRANSVAAL.—Soutpansberg: Vivo, schoolgrounds, Mogg 24448 (PRE, J); slopes of Soutpansberg near Saltpan, Obermeyer, Schweikerdt & Verdoorn 168 (PRE); southern entrance of Sandrivierspoort, about 4 miles north of main road bridge, Meeuse 10213 (PRE, holo.).

Erect perennial suffrutex, greyish to subcanescent in appearance when fresh, forming semi-globose densely tufted bushes 30–60 cm. tall. *Stems* numerous, much-branched from the base up, the older parts woody, subterete, grey, with a smooth or faintly longitudinally wrinkled bark; ultimate ramifications wiry, subquadrate, yellowish-green when dry, finely puberulous to farinose; internodes 1–2 cm. long. *Leaves* linear-lanceolate, stiff, entire, sessile, subacute to subpungent, thinly puberulous or farinose, drying yellowish-green, 10–25 mm. long and 1–1.5 mm. broad; midrib prominent on lower surface, remaining venation consisting of a sinuous marginal vein connected by a few (usually 3–6) short transverse lateral veins with the midrib, prominent on lower surface, indistinct on upper surface. *Flowers* solitary, sessile in upper leaf-axils, almost running into a sparse leafy terminal spike; bracteoles 2, linear-lanceolate, resembling the leaves in shape and texture, attenuate-acute, 1-nerved, 5–6 mm. long and about 0.75 mm. broad. *Calyx* deeply 5-fid, the same colour as the leaves, densely covered outside with very short stiff bulbous-based hairs and inside mainly in the upper part; tube about 1 mm. long; lobes erect, equal, linear-lanceolate, attenuate-acuminate, about 4 mm. long and 0.5–0.75 mm. broad at the base. *Corolla* white with purple markings in the throat, outside densely pubescent with stiff short hairs, inside with a few stiff hairs in the throat, 8–9 mm. long; anticous (lower) lobe 3-lobed with the middle lobe subrotundate and the lateral lobes oblong, rounded at the apex; the throat on this side transversely rugulose; posticous (upper) lip concave, with a rugula containing the style, slightly emarginate. *Stamens* with a few stiff hairs near the base of the filaments; lower anther-cells with a long nearly straight tail; pollen of the *Justicia*-type, ellipsoid, 3-colporate. *Ovary* glabrous except near the top; style shortly and thinly pilose in lower half. *Capsule* pale ochre, densely strigose-hirsutulous with short stiff usually retrorse hairs, stipitate, 8–9 mm. long of which 3.5 mm. taken up by the “stalk”. *Seeds* rather thick, elliptic-subquadrate in outline, of a somewhat reddish brown colour, finely and rather evenly papilloso-verrucose, about 2.5 mm. long, 1.5 mm. broad and 1.25 mm. thick.

This rather insignificant *Justicia* belongs to a group of species which have axillary flowers not forming a distinct terminal inflorescence but sometimes running into a leafy sparse spike which is not clearly separable from the remainder of the stem (section

Calophanoides of Fl. Cap. and Fl. Trop. Afr.). In this group it must be placed in the affinity of the shrubby perennial species such as *J. orchioides* L.f., *J. odora* Vahl, *J. phillipseae* Rendle and *J. lortaeae* Rendle, but it differs from the first two in the smaller flowers and the narrow leaves, from the other two among other things in the pubescence, hairy corolla and hairy capsule. The pollen is of the *Justicia*-type (Knötchenpollen of Lindau), with three germination pores.

The first gathering was apparently by *Obermeyer* c.s. twenty years ago, but the material was rather scanty and nobody ventured a description. Recent gatherings provided ample material and field-notes. The specimens O.S.V. 198 and *Meeuse* 10213 were compared at Kew and reported by Mr. W. Marais to be unmatched.

This plant is easily recognised in the field by its very dense low bushy habit which is not found in other species of the genus occurring in Southern Africa. It seems to prefer warm, dry and rocky situations and has so far only been found in a fairly small area comprising some drier localities in the foothills of the western part of the Soutpansberg range. It is not gregarious, the specimens gathered being apparently taken from single individual plants, and it is probably rare, but a careful search for this not very conspicuous species in suitable localities may prove that it is more wide-spread than the present records indicate.

Petalidium (Sect. *Petalidium* = Sect. *Haplanthus* Lindau) **luteo-album** *A. Meeuse*, spec. nov. ex affinitate *P. linifolii* T. Anders. et *P. lucentis* Oberm. sed inter alia foliis ellipticis vel oblongis (nec linearibus nec lineari-lanceolatis), floribus haud lilacinis, bracteis nec atris nec purpureo-venosis differt.

Frutex glaber densus multiramosus habitu semigloboso, 0.50–1 m. altus. *Caules* lignosi cortice griseo vel atrio-purpureo obtekti, ramulis ulterioribus subdense foliosis viridibus vel albescentibus. *Folia* firmiter herbacea in siccitate pergamacea, flavo-viridia, elliptica vel oblonga, integra, obtusa vel subacuta interdum minute apiculata, 2–3.5 cm. longa, 0.5–1.5 cm. lata, cystolithis indistinctis raro infra conspicuis, petiolis brevibus ad c. 6 mm. longis. *Flores* axillares, solitarii, pedicellis gracilibus curvatis vel sinuatis 4–7 mm. (post anthesin ad 12 mm.) longis, bracteolis 2 planis late cordatis asymmetricis submembranaceis vel papyraceis dilute albo-viridibus interdum plus minusve purpurascens abrupte apiculatis subglabris integris distincte denseque reticulato-venosis 2.5–3 cm. (post anthesin ad 4.5 cm.) longae et latae. *Calyx* viridis, 5-fidus, tubo 2–3 mm. longo, lobis erectis inaequalibus linearibus acutis minute sparseque glanduloso-puberulis ciliatisque 6–10 mm. longis. *Corolla* dilute flava labio antico flavo, in faucibus fuscovariegata, extus praecipue infra medium et ad nervos sparse adpresse pubescens, intus ad basin loborum pilis albidis rigidis retrorsis paucis sparsim strigosa, tubo (parte cylindrata) c. 10 mm. longo 3 mm. lato, faucibus (parte infundibuliformi) c. 15 mm. longis ad apicem c. 15 mm. latis, lobis 4 posticis subrotundis c. 8 mm. longis et latis, lobo antico late orbiculari-rhomboideo truncato emarginato c. 11 mm. longo 8 mm. lato. *Capsula* fusca glabra subnitida apiculata, 11–12 mm. longa, c. 6 mm. lata. *Semina* 1–2, 6 × 4 mm.

SOUTH WEST AFRICA.—Kaokoveld Reserve: Okonjombo, *Watt* O.P. No. 2732/G (PRE); near Orupembe (Anabib), *Story* 5730 (PRE, K); 20 m. W. of Otjiku on road to Orupembe, *de Winter & Leistner* 5683 (PRE, holo.!; isotypes to be distributed to K, M, Windhoek, B, SRGH and elsewhere).

A much branched rounded shrublet 0.50–1 m. tall. Older stems woody, terete, somewhat swollen at the nodes, grey to rather dark purplish grey, nearly smooth but here and there with a few small and slightly raised circular white lenticels, ultimate branchlets mostly appearing as short lateral shoots, green or ash-grey to white, glabrous or puberulous when still very young, rather densely leafy and bearing the solitary flowers in the leaf-axils. *Leaves* firm, yellowish-green when dry, more pale greyish green when

fresh, elliptic or oblong, entire, obtuse with rounded or minutely apiculate apex, gradually narrowing at the base, very soon quite glabrous, 2–3.5 cm. long and 0.5–1.5 cm. broad; cystoliths in dried leaves indistinct or occasionally discernible on lower surface; midrib slender, prominent on lower surface, lateral veins usually only 2–3 on either side, finer nervation almost invisible except in the youngest leaves; petioles short, some attaining 6 mm. *Pedicels* slender, curved (usually upwards) or sinuous, 4–7 mm. in fruit up to 12 mm. long. *Bracteoles* very large, flat, greenish-cream sometimes more or less suffused with purple, orbicular-cordate, abruptly and sharply apiculate with asymmetrical cordate base and more or less triangular rather narrow basal sinus, entire, papyraceous and rather brittle when dry, nearly glabrous except for a rim of a sparse very short pubescence near the margin inside, with a distinct midrib and a fine reticulate nervation, 2.5–3 cm. long and broad under open flowers, in fruit enlarging to 4.5 × 4.5 cm. *Calyx* green, 5-fid; the tube 2–3 mm. long; lobes linear, erect, acute, minutely and sparsely glandular-puberulous and ciliate, unequal in length, 6–10 mm. long, the tube in fruit elongating to 4 mm., the longest lobes to 12 mm. *Corolla* pale-cream with brown markings inside in lower side of throat and the lower (anticous) lip yellow; outside, mainly below the middle and on the veins, shortly and sparsely pubescent, inside with a few white stiff retrorse hairs at the bases of the lobes; the cylindrical part of the tube about 10 mm. long and 3 mm. in diam., the funnel-shaped portion (throat) about 15 mm. long and as much in diam. at the mouth; four posticous lobes suborbicular, about 8 × 8 mm.; the anticous (lower) lobe broadly-orbicular-rhomboid, truncate and emarginate at the apex, about 11 mm. long and 14 mm. broad. *Capsule* brown, rather shiny, apiculate, 11–12 mm. long and 6 mm. broad. *Seeds* 1 or 2, much compressed, about 6 × 4 mm.

This very distinct species was, as far as can be ascertained, collected for the first time by Dr. J. Watt, now Director of Agriculture, Windhoek, about twenty years ago when he was a Government Veterinary Officer. The two more recent gatherings provided ample material for the description.

It is a typical representative of the genus even in such minute details as the pubescent style. The solitary axillary ebracteate flowers with deeply 5-fid calyx indicate its place in the section *Petalidium* (= *Haplanthus* Lindau). Its nearest affinities appear to be with *P. linifolium* T. Anders. and *P. lucens* Oberm. which also possess large, flat and reticulate-veined bracteoles, but it differs in several respects such as broader leaves, a different colour of the corolla (which is mauve or bluish in the other species) and the concolorous (not blackish or purple, discolorous) venation of the bracteoles. The specimen *Story* 5730 was compared at Kew and the British Museum herbarium by our officer at Kew, Mr. W. Marais who reported that this plant is not represented in either herbarium and confirmed my conclusion that there is no other described species whose diagnosis could possibly apply to the Kaokoveld plant.

The specific epithet chosen refers to the colouring of the corolla, although it should be mentioned that cream or yellow colours are found in the corollas of several species of *Petalidium*; however as far as all available records show, the combination of cream and yellow in a single flower has not been observed in previously described species.

Rhinacanthus xerophilus A. Meeuse, spec. nov., *R. rotundifolio* C. B. Clarke arcte affinis, sed caulibus subteretibus (haud acute sexangulatis), indumento caulium et foliorum densiore praecipue differt.

Suffrutex perennis e basi ramosus 20–70 cm. altus. *Caules* adscendentes vel suberecti, basi lignosi glabrescentes fuscentes, supra virides firmiter herbacei rigidi subteretes indistincte longitudinaliter sulcati, pilis brevibus curvatis dense pubescentes. *Folia* late elliptica vel ovata vel obovata vel triangulari-ovata interdum suborbicularia, subsessilia vel petiolis 1–6 mm. longis instructa, lamina acuta vel obtusa interdum

emarginata vel minute apiculata basi rotundata vel subcordata raro decurrenti vel subcuneata integra vel subcrenata supra intense viridi in siccitate olivacea vel nigricanti minute subsparsaeque strigoso-pubescenti subtus pallidior et praecipue ad nervos pilis plus minusve curvatis nunc subsparsae nunc dense pubescenti ad subvelutina demum glabrescenti 1·4–5 (–6) cm. longa et 0·5–4 (–5) cm. lata. *Flores* sessiles vel subsessiles in paniculam terminalem 8–18 cm. longam 2–10 cm. latam more *Rhinacanthi* dispositi. *Pedunculi* teretes longitudinaliter subsulcati dense minuteque pubescentes vel pilosuli. *Bracteae bracteolaeque* minutae, pilosulae. *Calyx* profunde 5-fidus, pilis brevibus patentibus et pilis glandulosis pubescens, 5–6 mm. longus, tubo subnullo, segmentis anguste lineari-lanceolatis erectis acutis. *Corolla* alba intus in faucibus maculis dilute purpureis variegata, extus villosula et sparse glanduloso-pilosa, intus (labio postico excepto) subglabra, tubo tubuloso (17–) 22–25 mm. longo 1–1·5 mm. lato, lobis anticis obovato-ellipticis obtusis intus sparsissime praecipue ad basin glanduloso-pilosis 7–10 mm. longis 3·5–4·5 mm. latis, lobo postico lineari-oblongo acuto intus sparse glanduloso-pubescenti 6–8 mm. longo. *Genitalia* et *granula pollinis* ut in typo, stylo sparse pilosulo, ovario pilis brevibus subpatentibus et pilis glandulosis paucis dense pubescenti. *Capsula* apiculata, pilosula, 15–18 mm. longa, parte stipitata 7–9 mm. longa. *Semina* nigra, c. 3 mm. longa et lata.

TRANSVAAL.—Soutpansberg: Messina, *Rogers* 20759, 22599; Msekwa's Poort, *Meeuse* 9188; near Mara, *Meeuse* 10198. Sebasa: near Lake Fundusi, *Bremekamp & Schweikerd* 373. Pietersburg: Soekmekaar, *Meeuse* 9221 (PRE, holo.!, K. iso.!). Mokeetsi, *Breyer* h. No. 21450; 3 miles W. of Maliepsdrift, *Meeuse* 10644; Nelspruit: Kruger National Park, near Skukuza, *Codd* 5215, *Van der Schijff* 3407.

PORTUGUESE EAST AFRICA.—Sul do Save: Lourenço Marques distr., Ressano Garcia, *Schlechter* 11881.

SOUTHERN RHODESIA.—Ndanga: Mtilikwe Riv., Bangara Falls, *Wild* 4361 (SRGH, PRE).

(All cited numbers in PRE, *Codd* 5215, *Meeuse* 9188, 10198, *Van der Schijff* 3407 also in K).

Straggly to suberect subshrub, branched mainly near the base, 20–70 cm. tall. *Rootstock* woody. *Stems* ascending to suberect, woody at the base and there becoming covered with a thin pale brown bark; upper parts green, firmly herbaceous to wiry, rigid, subterete, indistinctly longitudinally sulcate and densely covered with a pubescence of short, patent to more or less curved hairs. *Leaves* firmly herbaceous, varying from broadly elliptic to (ob)ovate or broadly deltoid-ovate, sometimes suborbicular, subsessile or on 1–6 mm. long shortly pubescent petioles, acute or obtuse, often minutely apiculate, occasionally emarginate; rounded, truncate to subcordate, rarely decurrent or subcuneate at the base, entire or faintly crenate, dark green drying blackish, and with a rather sparse short strigose pubescence on upper surface, paler and usually much more densely shortly pubescent to velutinous on lower surface (more densely so on the veins), rarely noticeably glabrescent, 1·4–5 (–6) cm. long and 0·5–4 (–5) cm. broad. *Flowers* sessile or subsessile in small clusters or solitary borne on a typical paniculate branched *Rhinacanthus* inflorescence 8–18 cm. long and 2–10 cm. broad. *Peduncles* and *branches of the panicles* very similar to the stems in appearance but pubescence more and more interspersed with toadstool-shaped glandular hairs as the ramifications become finer. *Bracts and bracteoles* minute, thinly covered with short stiff hairs. *Corolla* white marked with mauve in the throat, pilose outside, nearly glabrous inside except on the upper lip; the tube (18–) 22–25 mm. long and 1–1·5 mm. in diam.; anticus lip of 3 obovate-elliptic obtuse 7–9 mm. long lobes, which are very sparsely glandular-pubescent mainly near the base inside; posticus lip linear-oblong, acute, sparsely glandular-pubescent inside, 6–8 mm. long. *Pollen-grains* as in the type species. *Ovary* densely

pubescent with short stiff hairs interspersed with a few glandular hairs; style very sparsely pilose. *Capsule* apiculate, stipitate, hairy, 15–18 mm. long of which 7–9 mm. taken up by the “stalk”. *Seeds* black, orbicular in outline with a notch near the hilum, about 3 mm. in diam.

This species is very close to *R. rotundifolius* C. B. Clarke and Mr. D. J. B. Killick who compared several Transvaal specimens such as *Meeuse* 9221 (an isotype), *van der Schijff* 3407 and *Codd* 5265 with a syntype of the latter (*Thomas* 7, K) reported the following differences, which were confirmed when a specimen of *R. rotundifolius* from Kismayu, Somalia (*Bally* 9508) was received on loan from the East African Herbarium, Nairobi.

Thomas 7.

1. Leaves strictly ovate (in *Bally* 9508 elliptic to oblong).
2. Leaves sparsely hairy with veins prominent on lower surface.
3. Stems *sharply* 6-angled in cross-section with 2–3 grooves between the angles, with very small white adpressed *retorse* hairs, mainly on the angles.

R. xerophilus.

1. Leaves ovate-cordate and sometimes cordate.
2. Leaves densely pubescent on lower surface, veins not so prominent.
3. Stems subterete, more undulate in cross-section without angles or intermediate grooves, abundantly hairy all round with *suberect* hairs.

These differences may seem to be small, but they are apparently constant and in this genus the differences between the species are always small, so much so that the wide-spread African species *R. gracilis* Klotzsch has for a long time been treated as identical with (and a taxonomical synonym of) the Indian *R. nasutus* (L.) Kurz (= *R. communis* Nees).

To the differences mentioned by Mr. Killick may be added that the corolla-tube in *R. rotundifolius* was described as $1\frac{1}{4}$ inch (about 30 mm.) long (in *Bally* 9508 it is 30–50 mm.) long, whereas in the plant described here the length of the corolla-tube, even in vigorous cultivated specimens, does not exceed 25 mm.; the width also differs: 1–1.5 mm. in *R. xerophilus*, 0.5–1 mm. in *Bally* 9508. Another difference between *R. xerophilus* and some related species may be found in the ecology. *R. xerophilus* seems to be restricted to open, gravelly or rocky open places in dry bushveld vegetations in areas with a low annual rainfall, classified by Acocks (Veld types of South Africa, 1953) as Arid Lowveld, Arid Sweet Bushveld and Mopani Veld, hence the specific epithet. *R. gracilis* is found in more humid situations, often in tropical lowland vegetation. The ecology of *R. rotundifolius* (recorded from Kenya, Tana River, and Somalia) is not known, but it is likely to grow in similar arid conditions as the species from Southern Africa and this may account for the great similarity in habit between these two geographically separated forms. It is possible that the two are derived from the same common ancestral form and developed independently into the present specifically different taxa, because they became geographically separated.

AMARYLLIDACEAE.

Cyrtanthus erubescens Killick, sp. nova distinctissima, nullis e specibus notibus propinqua.

Bulbi ad 10 cm. alti 4–6 cm. diam. *Folia* 2–4-lorata 20–60 cm. longa 2–6 cm. lata basi rubro-marginata. *Scapi* 20–50 cm. alti 1–1.5 cm. diam. *Bractee* 2, 4–7 cm. longae 1.5–2 cm. latae. *Umbellae* 9–15-florae, pedicellis ad 5 cm. longis (fructiferis ad 7 cm.) erectis vel suberectis. *Perianthium* rubicundum 3–4 cm. 3–4 longum, tubo 8–10 mm. longo campanulato, lobis curvatis patentibus 2–3 cm. longis oblongo-lanceolatis, exterioribus 6.5 mm. latis, interioribus 6 mm. latis. *Stamina* 6, 3 in parte superiore faucium et 3 basi loborum interiorum inserta, antheris versatilibus. *Ovarium* 6 mm. longum 4–5 mm. diam. *Loculi* multiovulati. *Stigma* trifida, lobis recurvatis et marginibus leviter revolutis. *Capsulae* 2.5 cm. longae 1.7 cm. latae, seminibus compressis nitidis nigris.

NATAL.—Bergville District: locally frequent on grassy banks of stream, 9400 feet, Cathedral Peak Forest Station, *Killick* 1840; locally frequent in subalpine grassveld in moist gully below Windy Gap, c. 9300 feet, Cathedral Peak Forest Station, *Killick* and *Marais* 2187 (PRE, holotype); near upper contour path near minor stream below Inner Butress, 6500 feet, Cathedral Peak Forest Station, *Nänni* s.n. (Nat. Herb. No. 28587).

Bulbs up to 10 cm. tall and 4–6 cm. diam., more or less gradually tapered from near base to neck, with membranous tunic. *Leaves* 2–4, developing at same time or slightly later than the inflorescence, strap-shaped, 20–60 cm. long, 2–6 cm. wide, central midrib prominent on under surface, margin red in lower third of blade. *Scape* 20–50 cm. tall, 1–1.5 cm. diam., hollow. *Bracts* 2, subtending umbel, 4–7 cm. long, 1.5–2 cm. wide, the outer appreciably larger than the inner. *Umbel* 9–15-flowered; pedicels varying in length, but rarely more than 5 cm. long (elongating to 7 cm. in fruit), erect or suberect. *Perianth* pink, 3–4 cm. long, with one of the inner perianth segments uppermost very slightly less spreading than all the others and with the style arching somewhat under it. *Tube* 8–10 mm. long, campanulate, lobes curved, spreading, 2–3 cm. long, oblong-lanceolate; outer lobes 6.5 mm. broad with small tuft of hairs within apex; inner lobes 6 mm. broad with few hairs at apex. *Stamens* 6, 3 attached to the throat of the perianth opposite the outer segments and 3 on the inner segments just below their base; anthers versatile. *Ovary* 6 mm. long, 4–5 mm. diam. *Loculi* many-ovuled, in 2 ranks. *Stigma* trifid, the lobes recurved with the margins slightly revolute. *Capsule* 2.5 cm. long, 1.7 cm. broad; seeds compressed, shiny, black.

This very attractive plant with umbels of blush-pink flowers has been found in only two places in the Drakensberg, both in the Cathedral Peak area. It was first collected in December 1952 by the author in a moist gully at 9300–9400 feet some distance below Windy Gap (Organ Pipes Pass). There it is fairly common in subalpine grassveld where it is often associated with boulders. The second station is a few miles further north below the Inner Butress at 6500 feet. Climbers in the Drakensberg have occasionally come across the plant and have called it the “pink *Agapanthus*”. Its potential value as a cultivated plant has apparently been recognised, because climbers have at times made special expeditions to look for the plant.

When one uses Phillips’s key to Amaryllidaceae in his Gen. S. Afr. Pl. (2nd Edition, 1951), this plant runs down to *Anoiganthus*. It agrees with Baker’s original description of that genus in Journ. Bot. 76 (1878) except in two respects. Firstly, the stamens are not all inserted “at the throat of the tube”; three are situated on the inner perianth segments about 1 mm. above their base. Secondly, the flowers are pink instead of whitish or pale yellow. Neither of these characters ought to preclude this plant from *Anoiganthus*, consequently its inclusion in *Cyrtanthus* requires some explanation.

Baker in his Handb. Amaryll. ix (1888) and in Fl. Cap. 6, 171–172 (1896) distinguishes *Cyrtanthus* and *Anoiganthus* on the presence of versatile or basifixed anthers respectively. None of the specimens of *Anoiganthus* examined by the author had basifixed anthers; they were versatile. Baker himself in his original description of *Anoiganthus* describes the anthers as versatile. It is surprising, therefore, that he should use this character at all.

Phillips (l.c. p. 199) distinguished *Anoiganthus* from *Cyrtanthus* on the relative length of perianth tube to segments. In *Anoiganthus* the perianth tube is shorter than the segments and in *Cyrtanthus* the tube is much longer than the segments. The Drakensberg plant has segments which are 2–3 times longer than the tube, which would put it in *Anoiganthus*. In most species of *Cyrtanthus* the tube is longer than the segments, but in several species e.g. *C. affinis* R. A. Dyer, *C. clavatus* (L’Hérit.) R. A. Dyer, *C. bicolor*, R. A. Dyer and *C. brachyscyphus* Bak. the tube is often equal in length to the segments.

In *C. thorncroftii* C. H. Wright, the segments are as long as or longer than the tube. It seems reasonable then to enlarge our concept of *Cyrtanthus* to include plants with perianth tube shorter, equal or longer than the segments. The general facies of the Drakensberg plant is that of a *Cyrtanthus*.

Anoiganthus and *Cyrtanthus* have both been investigated cytologically. Gouws in Plant Life 5 (Herbertia Edition), 56–67 (1949) found that they have the same chromosome number, namely $2n = 16$. Wilsenach (ms.) investigated *Cyrtanthus* (among other genera of Amaryllidaceae) and arrived at the same number. In a summary of his work seen by the author Wilsenach suggests that our conception of *Cyrtanthus* should be modified to include *Anoiganthus*. However, the fate of *Anoiganthus* is best left to the considered judgement of some future monographer.

COMPOSITAE.

Helichrysum milfordiae Killick, sp. nov. affine *H. albo* N.E. Br., sed foliis capitulisque multo minoribus, involucris bracteis apice sanguineis differt.

Herba nana pulvinata 1–3 cm. alta omnino incana. *Folia* basalia dense rosulata obovata—spathulata 0·6–1·4 cm. longa 0·49–0·9 cm. lata apice subacuta ad rotunda, folia caulina lanceolata elliptica vel spathulata apice acuminata ad rotundata saepe arista membranacea subamplexicaulia. *Scapi* 3–12 cm. alti. *Capitula* 2·5–2·9 cm. diam. solitaria terminalia homogama. *Bractee involucris* 4–5 seriatæ lanceolatae ad ovatae acutae 0·6–1·2 cm. longae 1–4·5 mm. latae niveae saepe apice et basi sanguineae. *Receptaculum* leviter convexum et breviter alveolatum. *Styli* rami truncati. *Pappi setae* graciles apice plumosae. *Achaenia* glabra.

BASUTOLAND.—Drakensberg Area: on rocks, summit of Mount aux Sources, 9000 feet, Thode s.n. (Nat. Herb. No. 2749); summit of Mont aux Sources, 9500 feet, Flanagan 1972; rocky top of mountain in crevices between boulders, Thabana Ntlenyana, 11400 feet, Guillardmod 2332; in fissures of rocks on top of Thabana Ntlenyana, 11475 feet, Coetzee 597; fairly common on cliff faces, Castle Buttress Area, 9800 feet, Killick 2333.

NATAL.—Bergville District: locally abundant in cave above Organ Pipes Pass, Cathedral Peak Forest Station, 9600 feet, Killick 1990; forms extensive carpets in overhang at top of Organ Pipes Pass, Cathedral Peak Forest Station, 9700 feet, Killick 2322 (PRE, holotype); between rocks, in mats, rare, Cleft Peak, 9500 feet, Esterhuysen 23023.

A dwarf, cushion-forming herb, 1–3 cm. high, grey-lanate all over. *Basal leaves* densely rosulate, obovate to spathulate, 6–14 mm., 4–9 mm., apex subacute to round; cauline leaves lanceolate, elliptic or spathulate, apex acuminate to round often with a prominent membranous arista, subamplexicaul. *Scapes* 3–12 cm. tall. *Heads* 2·5–2·9 cm. diam., solitary, terminal, homogamous. *Involucral bracts* 4–5-seriate, lanceolate to ovate, acute, 6–12 mm. long, 1–4·5 mm. wide (progressively longer and narrower towards centre except for innermost row which is shorter than penultimate row), white, shiny, often crimson (occasionally brown) at apex and base. *Receptacle* convex, shallowly honeycombed, corners of pits slightly produced. *Corolla* 3·5 mm. long, filiform, glabrous except on outside of lobes. *Style* branches truncate. *Pappus* of fine bristles, plumose at apex. *Achenes* glabrous.

This new *Helichrysum* is an attractive carpet or cushion-forming plant consisting of scores of tightly congested grey rosettes connected by horizontal rhizomes. The cushions are found on rocks on the summit of the Drakensberg above 9000 feet. In

the Organ Pipes Pass area *H. milfordiae* usually occurs on cliffs with a southern aspect or immediately below them. Occasionally it is associated with *Crassula* sp. (Killick 2321).

H. milfordiae is closely related to *H. album* N.E. Br., but differs in the very much smaller leaves and heads, and the crimson- (sometimes brown-) tipped involucre bracts. It should be noted that the gatherings of *H. milfordiae* from the Cathedral Peak area (Killick 1990, 2322 and 2333, and Esterhuysen 23023) are consistent in having an indumentum which is lanate-floccose i.e. the hairs intertwine in a random manner, whereas in the remaining specimens the hairs are more or less straight and adpressed. At first it was thought that this might be a specific difference, but the plants agree so closely in other respects that they have here been treated as one species.

The first gatherings of this species were made in the 1890's. They were Thode s.n. in February 1893, Flanagan 1972 in January 1894 and Thode 29 in January 1896—all from Mont aux Sources. It seems that fifty years elapsed before it was collected again as a herbarium specimen; the author found it growing at the top of the Organ Pipes Pass in May, 1953. Since then the plant has been collected several times as indicated by the other specimens cited.

This plant has been cultivated in gardens in Britain for many years under the name of *Helichrysum marginatum* DC. It differs from typical *H. marginatum* in its dwarf habit (rosette plus scape up to 12 cm. high as against 25 cm.), shorter leaves (up to 1.4 cm. instead of 5 cm. long), in being lanate all over, and in having crimson-tipped involucre bracts. Interest in the plant was probably stimulated by an article by Dr. R. Seligman in Bull. Alpine. Gard. Soc. 2, 168–178 (1933) entitled "Wild Flowers of South Africa". The part dealing with *H. milfordiae* reads: "The summit (Machache in Basutoland) and its approaches brought me three new treasures, a white *Dimorphotheca* nestling among the stones—a true scree plant if there ever was one—a tiny *Helichrysum* wedged firmly into the living stone, and in a sheltered spot a dwarf *Geranium*." Dr. Seligman included a photograph of the plant taken on the summit of Mount Machache (9300 feet).

How this species came to be grown in Britain can be gleaned from letters attached to a specimen of the plant in Kew Herbarium. The plant was sent to Kew for naming in June, 1947 by Dr. J. S. L. Gilmour, then Director of Wisley Royal Horticultural Society Gardens. Mr. A. A. Bullock dealt with the plant and decided that it was new to science, but that he would have to know more about its origin before describing it. Dr. Gilmour subsequently found out from Mr. W. E. T. Ingwersen that the plant was collected by the late Mrs. Helen A. Milford at Mont aux Sources in Basutoland and brought to England where it found its way to the gardens of alpine plant enthusiasts. The author has adopted Mr. Bullock's manuscript name of *H. milfordiae* honouring Mrs. Milford.

CONVOLVULACEAE.

Merremia guerichii A. Meeuse, spec. nov.,—*M. guerichiana* (Engl. ex) Hallier f. in Engl. Bot. Jb. 18: 69 (1893), nomen tantum. Ab *M. quercifoliae* Hallier f. foliis profunditer palmatilobis praecipue differt, ab *M. ampelophyllae* Hallier f. inter alia indumento setoso-piloso haud molliter pubescenti, ab *M. bipinnipartitae* (Engl.) Hallier f. indumento distinguenda.

Suffrutex. Radix lignosa perennis. Caules pauci vel plurimi, prostrati vel suberecti, 20–60 cm., interdum ad 90 cm., longi, 1.5–2.5 mm. diam., firmiter herbacei ad basin plus minusve lignosi, subtereti, sublevi vel longitudinaliter striati, pilis basi incrassatis subsparsis vel subdense piloso-setosi demum glabrescentes et scabridi.

Folia firmiter herbacea in siccitate pergamacea, lamina ambitu ovato-orbicularia profunde 3–5 palmatifida glabra vel ad nervos sparse setosa 1–5 cm. longa et lata, lobis lyratis vel pinnatifidis vel crasse acuteque dentatis, petiolis setosis 0·5–3 cm. longis. *Inflorescentiae* 1–2-florae, pedunculis satis gracilibus subteretibus sparse setosis 0·5–4 cm. longis, bracteolae minutae, pedicellis 0·5–2 cm. longis. *Calyx* viridis in parte inferiora subdense pilis basi incrassatis setosus, lobis erectis oblongis vel anguste ellipticis vel cuneato-oblongis acutis vel subobtusis frequenter minute apiculatis subaequalibus 12–18 mm. longis. *Corolla* infundibuliformis, alba vel flavescens, vinoso-oculata, glabra, 5-lobata, 2·5–3·5 cm. longa lataque, lobis obtusis interdum minute apiculatis. *Stamina* subaequalia ad basin dilata et pilis minutis rectis papilloso-puberula, pollen *Merremiae*. *Ovarium* subglobosum, glabrum. *Capsula* subglobosa, straminea, apiculata, glabra, c. 12 mm. diam. *Semina* atrogrisea vel fusca, puberula, c. 8 mm. longa.

SOUTH WEST AFRICA.—Kaokoveld: between Orupembe Waterhole and Kunene River, *de Winter & Leistner* 5741 (PRE, holo.! EA, K, M, SRGH, isos.!); Anabib (Orupembe), *Story* 5698; without precise locality: *Von Koehnen* s.n. (M). Omaruru: Brandberg, Tsisab Gorge: *R. & F. von Wettstein* s.n. (M), *Rhodes University Student* s.n. (PRE), *Merxmüller & Giess* 1654 (M, PRE).

Perennial suffrutex. *Stems* several from a woody rootstock, rather firm to wiry, young stems often erect, older ones often prostrate; young parts rather densely setose-pilose with patent bulbous-based stiff hairs; older parts glabrescent and becoming scabrid, usually more or less woody, ultimate length about 60 cm., occasionally up to 90 cm., width near the base 1·5–2·5 mm.; internodes on prostrate stems up to about 7 cm. long but usually shorter (2–5 cm.). *Leaves* firmly herbaceous drying pergamaecous; the lamina in outline ovate-orbicular, deeply 3–5-palmatifid, usually nearly glabrous with only a few setose hairs on midrib and main veins towards the base, 1–5 cm. long and broad; the lobes lyrate to pinnatifid or coarsely and acutely, usually more or less coarsely, dentate; the petiole setose, 0·5–3 cm. long. *Flowers* solitary or in 2-flowered cymes; peduncles rather slender but firm, nearly terete, sparsely setose, 0·5–4 cm. long; bracteoles minute; pedicels 0·5–2 cm. long. *Calyx* green, in basal portion rather densely setose or even bristly with stiff bulbous-based patent hairs; sepals subequal, erect, oblong, narrowly elliptic or cuneate-oblong, acute or subobtuse and usually minutely apiculate, 12–18 mm. long; in fruit turning brown, slightly enlarged (mostly in width) and glabrescent becoming somewhat scabrid in lower portion. *Corolla* funnel-shaped, white or pale yellow with wine-coloured or maroon “eye”, glabrous, 2·5–3·5 cm. long and as much in diam., with a 5-lobed spreading limb, lobes of limb obtuse, occasionally minutely apiculate. *Stamens* subequal, at the laterally broadened base with papillose short stiff straight hairs. *Pollen grains* typical of the genus. *Ovary* subglobose, glabrous. *Capsule* subglobose, apiculate, straw-coloured, glabrous, about 12 mm. in diam. *Seeds* dark grey or brownish grey, puberulous, about 8 mm. long.

This plant has been collected on several occasions but seems to be restricted to a comparatively small area including a part of the Kaokoveld and the area of the Brandberg (Omaruru district) in South West Africa. It was most probably collected by Guerich for the first time about 70 years ago, but his specimen (in Berlin) was destroyed and it was never properly described, so that the evidence that “*Merremia guerichiana*” is the same plant as the one described here as “*guerichii*” is circumstantial: (1) *Guerich* 69 was collected at Soris-Soris, which is not far from the Brandberg, and (2) a second specimen was cited under *M. guerichiana* by Hallier, viz., *Fischer* 34 from East Africa. This caused some confusion when Dr. B. Verdcourt of Nairobi studied *Fischer* 34 a few years ago and decided it is *M. ampelophylla*. As he did not see the Guerich gathering he took it for granted that the two specimens cited by Hallier were indeed identical,

so that in a remark in Kew Bull. 1957: 348 Dr. Verdcourt stated that *M. ampelophylla* occurs both in East Africa and in South West Africa. The South West African plant is undoubtedly specifically different from *M. ampelophylla*, but is closely related to it, so that it is not surprising that one could confuse the species described here with the East African one. It follows that *Guerich* 69 must have been conspecific with *M. guerichii*, otherwise Hallier could not have cited it together with *Fischer* 34. Dr. Verdcourt has seen a specimen of *M. guerichii* and agrees that it is distinct from *M. ampelophylla*.

The identity of *M. guerichiana* seems, therefore, to be definitely established.⁽¹⁾ However, the specific epithet "*guerichii*" was chosen which conveys the same but is not nomenclaturally synonymous, so as to avoid the dangerous action of validating a name without access to the original type (*Guerich* 69). In this way a new gathering could be chosen as the type of *M. guerichii*, a solution which is much more satisfactory and not at variance with certain recommendations in the Code of Botanical Nomenclature.

GRAMINEAE.

Andropogon ravus J. G. Anderson, sp. nov., *A. sylvatico* C. E. Hubbard affinis, sed ita differt: habitu brevior, cum rhizomatibus, culmi 2-3-nodosi glabri, vaginae quam internodia breviores, spiculae pedicellatae longiores, glumae spicularum pedicellatarum et glumae superiores spicularum sessilium sine aristis.

Gramen perenne ad 90 cm. altum (plerumque 45-60 cm.) rhizomatibus ramosis. *Culmi* erecti simplices 2-3-nodosi glabri obscure striati vel leves teretes, nodis glabris, internodiis exsertis glabris levibus. *Folia* ad 23 cm. longa 3-6 cm. lata plana linearia. *Vaginae* glabrae internodiis breviores, lamina summa saepe ad aristam brevem redacta, ligula membranacea ad 2 cm. longa. *Racemi* 7-12 cm. longi, spiculis pallidi-viridibus purpura suffusis. *Spiculae sessiles* lineari-oblongae 6-9 mm. longae callo obtuso barbato. *Glumae* subaequales, inferior canale profunde per mediam fundum, tenuiter coriacea apicem versus admodum carinata carina anguste alata in dimidio superiore scabrida vel ciliata, superior naviformis triente superiore carina scabrida vel ciliata marginibus leviter ciliatis subacuta 1-3-nervata. *Lemma floris inferioris* 6-8 mm. longum 2-carinatum obtusum 3-nervatum marginibus acute inflexis hyalinis et in dimidio superiore ciliatis. *Palea* non nervosa hyalina 2-3 mm. longa. *Lemma floris superioris* 5-6 mm. longum inter lobos acutos aristatum arista ad 2 cm. longa infra genu contorta. *Palea* nulla. *Spicula pedicellata* dorsaliter compressa. *Glumae* inaequales, inferior 7-12 mm. longa plana carinata carinis et marginibus ciliis hyalinis rigidis apice mucronato vel obtuso, superior breviter naviformis 6-9 mm. longa 3-nervata vel obscure 5-nervata marginibus ciliatis apice acuto. *Flos inferior* sterilis lemmate 7-8 mm. longo marginibus inflexis in dimidio superiore obscure ciliato hyalino obtuso 3-nervato palea non nervosa hyalina. *Flos superior* masculinus, lemmate 6 mm. longo apice obtuso marginibus inflexis palea nulla. *Antherae* lineares 4-5 mm. longae.

CAPE PROVINCE.—Maclear District: near lower Pitsing, sandy banks of Lusio River, locally frequent, c. 4,700 feet, *Acocks* 12191.

NATAL.—Bergville District: Cathedral Peak, towards Indumeni, Cleft Peak, c. 7,000 feet, *J. M. Gomell*; occasional in *Themeda triandra* Grassveld c. 6,700 feet, *Killick* 1261 (PRE, holotype).

⁽¹⁾ Note added in proof: Dr. S. J. van Ooststroom of the Rijksherbarium, Leiden, kindly sent me the notes on *M. guerichiana* which he found among the unpublished manuscripts left by Hallier. These notes include a detailed description which agrees perfectly with the plants cited above (bulbous-based hairs on vegetative parts and calyx, and similar details) and Hallier mentions only *Guerich* 69 (herb. Berol.). This is the decisive evidence for the identity of "*M. guerichiana*" with the plants described here as *M. guerichii*.

ORANGE FREE STATE.—Bethlehem District: Golden Gate, c. 6,000–7,500 feet, Story 1957.

SWAZILAND.—Mbabane: Ukutula, c. 4,300 feet, Compton 25593.

Perennial, up to 90 cm. tall, usually 45–60 cm., with a branched knotty system of rhizomes. *Culms* erect, simple, 2–3-noded, glabrous, faintly striate or smooth, terete; nodes glabrous; internodes exerted, glabrous and smooth. *Leaves* up to 23 cm. long, 3–6 mm. wide, flat, linear, tapering to a setaceous point, narrowed towards the base or base slightly rounded, glabrous, glaucous, margins often scabrid; sheaths glabrous, striate, pallid or upper often suffused with purple, shorter than the internodes, leaf blade of uppermost sheath often reduced to a short awn, mouth often with a few long hairs; ligule membranous, scarious, up to 2 mm. long. *Inflorescence* of 2 (very occasionally 3) spike-like racemes, shortly pedicelled or lowermost sessile. *Racemes* 7–12 cm. long; spikelets light green suffused with dull purple, paired, lower sessile, upper pedicelled. *Sessile spikelets* linear-oblong, 6–9 mm. long; callus obtuse, bearded. *Glumes* sub-equal, lower with a deep median groove, thinly coriaceous, strongly keeled upwards, mucronate, keel narrowly winged, scabrid to ciliate in the upper half; upper boat-shaped, with a scabrid or ciliate keel in the upper third, finely ciliate on the margins, subacute, 1–3-nerved. *Lemma* of the lower floret 6–8 mm. long, 2-keeled with sharply inflexed margins; margins ciliate in the upper half, hyaline, obtuse, 3-nerved. *Palea* a nerveless hyaline scale 2–3 mm. long. *Lemma* of upper floret 5–6 mm. long, awned from between the acute lobes; awn up to 2 cm. long, twisted below the knee. *Palea* absent. *Pedicelled spikelet* dorsally compressed. *Glumes* unequal; lower 7–12 mm. long, keeled, keels and margins with stiff hyaline cilia, apex mucronate or obtuse; upper shallowly boat-shaped, 6–9 mm. long, 3- or faintly 5-nerved, margins ciliate, apex acute. *Lower floret* sterile. *Lemma* 7–8 mm. long, margins inflexed, sparsely ciliate in upper half, hyaline, obtuse, 3-nerved. *Palea* a nerveless hyaline scale. *Upper floret* male. *Lemma* 6 mm. long, apex obtuse, margins inflexed. *Palea* absent. *Anthers* linear, 4–5 mm. long.

Andropogon ravus is occasional in *Themeda triandra* grassveld on mountain slopes near Mbabane in Swaziland and in the foothills of the Drakensberg from Bethlehem in the Orange Free State to Maclear in the Cape Province. In the Bergville and Estcourt districts it occurs on the terrace immediately below the main Drakensberg escarpment between 6,000 and 7,000 feet. According to Mr. D. J. B. Killick, who has analysed the sourveld in the Cathedral Peak area, *A. ravus* provides 0.75 per cent to 0.95 per cent of the basal cover in a total grass cover of between 40 per cent and 47 per cent. He also states that it is readily recognised in the field, even when not in flower, because of its glaucous-grey colour.

This grass is closely allied to *A. sylvaticus* C. E. Hubbard described from Nyasaland. Our material was compared with this at Kew. The main differences are as follows:

A. sylvaticus is a tufted perennial 1–1.3 m. high with the leaf-sheaths longer than the internodes and the upper sheaths pilose with lax soft hairs, whereas *A. ravus* has a system of branched knotty rhizomes, is generally shorter and rarely up to 90 cm. tall and the glabrous leaf-sheaths are shorter than the internodes.

In *A. ravus* the pedicelled spikelets are longer and up to 12 mm. long compared with those of *A. sylvaticus* which are 7–8 mm. long. The apex of both the upper and lower glumes of the pedicelled spikelet of *A. sylvaticus* is aristate whereas the upper glume in *A. ravus* is acute and the lower mucronate or obtuse. The apex of the upper glume of the sessile spikelet in *A. sylvaticus* is aristate at the apex and subacute in *A. ravus*.

The awn of the lemma of the upper floret of the sessile spikelet is up to 2.0 cm. long in *A. ravus* and only up to 1.5 cm. long in *A. sylvaticus*.

Danthonia stereophylla J. G. Anderson, sp. nov., *D. drakensbergensi* affinis, sed ita differt: folia rigidissima inflorescentiae aequalia vel inflorescentiam superantia, appendices laterales lemmatis angustiores, aristae loborum lemmatis longiores.

Gramen perenne caespitosum ad 80 cm. altum. *Culmi* erecti simplices compressi obscure nodosi glabri leves. *Folia* rigidissima subpungentia glabra levia inflorescentiae aequalia vel inflorescentiam superantia, vagina rigida pallida striata intus pubescente, inferiore indurata, ligula ad seriem densam ciliarum brevium redacta, laminis filiformibus rigidis ad 36 cm. longis conduplicatis supra striatis minute scaberulis, supra ligulam sericeo-pubescentibus marginibus integris. *Paniculae* erectae laxae contractae angustae lanceolatae ad 18 cm. longae, rhachide subangulata striata glabra levi, ramulis subteretibus leviter patentibus solitaribus in axillaribus sericeis, pedicellis 3–20 mm. longis angulatis vel subteretibus glabris nonnunquam scaberulis. *Spiculae* ad 2 cm. longae pallidi-flavae nitidae. *Glumae* lanceolatae, 1.1–1.8 cm. longae subaequales pallidae nitidae glabrae leves, superiores marginibus basin versus saepe pubescentes, 1-nervosae carinatae acutae. *Rhachillae internodii* glabri apicem versus ampliati complanati. *Lemmata* lanceolata ad 16 mm. longa bilobata, supra glabra, intus sparse pilosa, marginibus media sub parte pilosa, apicem versus sparse pilosa pilis non caespitosis, lobis ad 9 mm. longis margines versus tenuiter scabris acuminatis in aristam gracilem scabram productis. *Callus* truncatus dense barbatus. *Arista media* geniculata ad 2 cm. longa scaberula, apicem versus angustior basin versus complanata et spiraliter contorta non lobis adnata. *Paleae* ad 7 cm. longae intus pubescentes apice bilobatae distincte carinatae carinis et lobis breviter ciliatis lobis ad 2 cm. longis. *Antherae* circiter 3 mm. longae. *Ovarium* glabrum stylis distinctis.

BASUTOLAND.—Drakensberg Area: often dominant on rock outcrops on summit of Drakensberg between Indumeni Dome and Cleft Peak, 9,800 feet, *Killick* 2349; common on rock outcrops on summit of Drakensberg in Cleft Peak Area, c. 9,800 feet, *Killick & Marais* 2183.

NATAL.—Estcourt District: edge of south krantz, frequent, Tabamhlope, c. 6,400, *Acocks* 11472; summit and elsewhere common, Bushman's Pass, 7,100–9,000 feet, *West* 1690; occasional on slopes of Drakensberg near Champagne Castle, 10,000 feet, *West* 799. Bergville District: Tutumi Valley, 9,000 feet, *Killick* 2339; Cathedral Peak Forestry Station, 6,300 feet, *Killick* 1317; 7,400 feet, *Killick* 1184 (PRE, holotype).

A rigid, wiry, tufted, perennial. *Culms* erect, simple, up to 80 cm. high, compressed, obscurely noded, glabrous and smooth. *Leaves* very rigid, subpungent, glabrous, smooth, reaching up to or overtopping the inflorescence; sheaths rigid, pale, striate above and minutely scaberulous, sericeous above the ligule, margins entire. *Panicle* erect, loosely contracted, narrowly lanceolate, up to 18 cm. long; rhachis sub-angular, striate, glabrous and smooth; branches sub-terete, slightly spreading, solitary or apparently binate, lower up to 7 cm. long, upper shorter, sericeous in the axis; pedicels 3–20 mm. long, angular or subterete, glabrous, occasionally scaberulous. *Spikelets* up to 2.0 cm. long, pale yellow-green, shiny. *Glumes* lanceolate, 1.1–1.8 cm. long, sub-equal, pale, shiny, glabrous and smooth, upper glume often with a few long hairs on the margin towards the base, 1-nerved, carinate, acute. *Rhachilla internodes* glabrous, broadened towards the apex and flattened. *Lemmas* lanceolate, bilobed, up to 16 mm. long (including the lobes) glabrous dorsally, sparsely hairy on the inside, pilose near the margin from about the middle downwards, sparsely pubescent on the margin upwards, hairs usually not arranged in distinct tufts; lobes up to 9 mm. long, finely scaberulous towards the margin, acuminate and gradually tapering into a scaberulous, slender awn. *Callus* truncate, densely barbate. *Central awn* geniculate, up to 2 cm. long, scaberulous, tapering towards the apex, flattened towards the base and spirally contorted, not adnate to the lobes. *Palea* up to 7 mm. long, pubescent on the inside, apex 2-lobed, distinctly keeled; keels and lobes shortly ciliate, lobes up to 2 mm. long. *Anthems* about 3 mm. long. *Ovary* glabrous; styles distinct.

Danthonia stereophylla is closely related to *D. drakensbergensis* Schweick. The distribution of these two species in the Drakensberg overlaps, but they can be distinguished on both ecological and morphological grounds.

D. stereophylla occurs on the Little Berg and its outliers (e.g. Tabamhlope), and on the main Drakensberg escarpment from 6,000 feet to the summit at c. 11,000 feet. So far it has only been collected between Bushman's Pass (Langalibalele's Pass) and Cleft Peak, but it has been recorded further north at Mont Aux Sources by Mr. D. J. B. Killick. At its lower altitudinal limits it grows on outcrops at the edge of koppies, and in the alpine zone it is often dominant on dry basalt cliffs and horizontal pavements. Its habitat is essentially xeric. *D. drakensbergensis* is restricted to the sub-alpine and alpine zones above 8,000 feet and, in contrast to *D. stereophylla* it occupies mesic situations on streambanks and seepage areas.

Vegetatively, the plants can be distinguished quite easily in the field. *D. stereophylla* is a wiry plant up to 80 cm. tall with rigid, erect or suberect, grey-green leaves, whereas *D. drakensbergensis* is a taller plant (up to 100 cm. high) with softer, olive-green leaves. A peculiar feature of *D. drakensbergensis* (also of *D. macowanii* Stapf) which is not evident in *D. stereophylla* concerns the behaviour of old leaves; the leaves break off a little distance above the ligule and the portion remaining splits along the middle nerve and the resultant halves recurve outwards at the apex.

The main differences in the spikelet are:

The hairs of the lemmas of *D. drakensbergensis* are arranged in 3 distinct tufts on each side, arranged in an oblique row at about the middle while the margin of the lemma is glabrous downwards. In *D. stereophylla* the hairs are arranged in a more or less continuous band along the margin, with long soft hairs from the base to the middle, and short rather sparse hairs from the middle to the apex. There is usually no definite formation of tufts, but the hairs at the middle occasionally aggregate to form a single tuft.

In *D. drakensbergensis* the lobes of the lemmas are broad, and taper rather abruptly into the awns. In *D. stereophylla*, however, the lobes are narrow and taper very gradually into the long slender awns, so that it is impossible to say where the lobes end and the awns begin.

The lemmas (lobes plus awn) of *D. stereophylla* are 10–16 mm. long and up to 10 mm. in *D. drakensbergensis*. Schweickerdt in his description of *D. drakensbergensis* in Fedde Rep. XLIII, 88 (1938) gives the length of the lemmas as up to 14 mm., but it is possible that his range of material included specimens of *D. stereophylla*.

***Panicum volutans* J. G. Anderson, sp. nov., affine *P. obscuranti* (Woodrow) Stapf, sed nodis hirsutis, spiculis glumis et lemmatibus floris inferioris longioribus multo acuminatioribus, gluma inferiore manifesto 3-nervata differt.**

Gramen annum. *Culmi* erecti basi geniculati nodis hirsutis. *Folia* hispida pilis e tuberculis minutis ortis praesertim superne; vaginae externe pilis e tuberculis minutis ortis. *Paniculae* 40 cm. longae 25 cm. latae effuse ramosae. *Spiculae* 6.0–6.5 mm. (raro 5.5 vel 7.0 mm.) longae. *Gluma* inferior 4.5–5.0 mm. longa, longo-acuminata manifesto 3-nervata, nervo uno secundaris divergente ab nervorum exteriorum, nervis primariis scaberulis; superior 6 mm. longa longo-acuminata manifesto 7–9 nervata nervis scaberulis. *Lemma floris inferioris* 4.0–4.5 mm. longum longo-acuminatum 7-nervatum. *Antherae* 1.5 mm. longae.

CAPE PROVINCE.—Vryburg District: Armoedsvlakte, c. 3,960 feet, Mogg 8108.

NATAL.—Estcourt District: Moordspruit, 8 miles north of Estcourt, c. 3,500 feet, Codd 2466; Moordspruit near Estcourt c. 3,500 feet. Acocks 9947.

TRANSVAAL.—Rustenburg District: 35 m. north of Swartuggens, c. 3,900 feet, *Acocks* 19179. Pretoria District: Onderstepoort, *Theiler* 27137; *Leendertz* 11335; Wonderboom Poort, *Mogg* 9937; Boschkop, 20 m. east of Pretoria, along banks of small river, *Kinges* 1721; Koedoespoort, *Pole-Evans* 327; Middelkop Farm near Pienaars River, *Smith* 2169; Rissik, c. 4,500 feet, *Robinson* sn.; Onderstepoort, c. 4,300 feet, *du Toit* 14; *Franks* 10616. Ermelo District: Between Bethal and Ermelo, *Codd* and *Muller* 268. Naboomspruit District: Vogelstruispan, *Galpin* M. 548. Standerton District: Teakworth, *Stent* sn.; New Denmark, *Marais* 16. Waterberg District: Bingley, *Kopje Alleen*, *Lyall Soutter* sn. Warmbaths District: Crecy, *Barenbrug* 1. Ventersdorp District: abundant in cultivated lands in vlei, *Louw* 1713 (PRE, holotype).

A loosely tufted annual. *Culms* up to 75 cm. tall, often sparingly branched, erect from a geniculate base, often rooting at the lower nodes; internodes terete, glabrous, smooth or faintly striate, easily compressible, lower often tinged with purple; nodes hirsute. *Leaves* up to 23 cm. long and 1 mm. broad, linear, tapering to a sub-setaceous apex, hispid with bulbous-based hairs on both surfaces, the upper more hairy than the lower, margins scabrid; ligule a membranous long-ciliate rim; sheath striate, outer surface hispid with bulbous-based hairs, inner surface glabrous, usually tinged with purple. *Panicle* large, up to 40 cm. long and 25 cm. broad, profusely branched, branches with 1–3 spikelets at their apex, naked below, lowest primary branches whorled, base often enclosed in the uppermost sheath; rachis angular, grooved, scaberulous on the angles, often tinged with purple. *Spikelets* 6.0–6.4 mm. (rarely 5.5–7.0 mm.) long, borne singly at the tips of long pedicels, lanceolate, acuminate, green, usually tinged with purple. *Glumes* unequal; lower 4.5–5.0 mm. long, long acuminate, membranous, prominently 3-nerved with 1 secondary nerve diverging from each of the outer primary nerves, primary nerves scaberulous; upper 6.0 mm. long, long acuminate, membranous, prominently 7–9 nerved with the nerves scaberulous. *Lower floret* barren. *Lemma* 4.0–4.5 mm. long, long acuminate, membranous, 7-nerved. *Palea* 2.0 mm. long, elliptic-oblong, hyaline. *Upper floret* bisexual. *Lemma* 2.75 mm. long, crustaceous, hard, smooth, narrowly oblong, apex obtuse, faintly 5-nerved, yellowish-grey with the nerves showing up as light-coloured lines. *Palea* 2.75 mm. long, narrowly oblong, apex obtuse. *Anthers* 1.5 mm. long.

Panicum volutans is found mainly in black turf soil in cultivated and other disturbed areas. It is one of the grasses known as “Rolling grass” or “Tumble Weed”, an allusion to the panicle which breaks off as a unit when mature and is carried away by the wind.

It is closely related to the Indian grass *P. obscurans* to which it was formerly erroneously referred. However, Mr. B. de Winter, found at Kew in 1952, that the South African plant is specifically distinct. Another close relative is *P. hippothrix* K. Schum. a tropical African species which is doubtfully distinct from *P. obscurans* (Woodrow) Stapf. Stapf in *Flora of Tropical Africa* 9, 699 (1902) says that *P. hippothrix* is “very similar and possibly identical with *P. obscurans* from the Deccan, but the blades of *P. obscurans* are much wider (up to 7 lin) and the panicle is perhaps on the whole more open with slightly larger spikelets”. Mr. de Winter supports the view that these species are probably synonymous since he could find no significant difference when dissecting spikelets of both at Kew.

Chippindall in the “Grasses and Pastures of South Africa” 328 (1955) refers to it as *Panicum* sp. aff. *P. hippothrix* K. Schum. because a valid name was not available at the time.

P. volutans differs from *P. obscurans* as follows: In *P. obscurans* the spikelets are about 4 mm. long with the lower glume approximately 3 mm. and the upper approximately 4 mm. long. In *P. volutans* the spikelets are about 6 mm. (rarely 5.5–7.0 mm.)

long with the lower glume 4.5–5.0 mm. and the upper glume 6.0 mm. long. The glumes and the lemma of the lower floret are much more acuminate than in *P. obscurans*. The nervation of the lower glume and the fertile floret is also different. In *P. obscurans* the lower glume is prominently 5-nerved, whereas in *P. volutans* it is prominently 3-nerved with a faint secondary nerve diverging on each side of the outer primary nerve. The fertile floret tends to turn brown in colour with the nerves showing up as light coloured lines. This is not the case in *P. obscurans*. Vegetatively there is very little difference between the two species except that the nodes are glabrous in *P. obscurans* and loosely to densely hirsute in *P. volutans*. The panicle is perhaps more rigidly branched than that of *P. obscurans*.

TILIACEAE.

Corchorus confusus Wild, sp. nov.; affinis *C. triloculari* L. sed habitu perenni, a *C. asplenifolio* Burch. sed pedunculo fructuoso recto foliis anguste lanceolatis vel ovatis, ramulis omnibus partibus patentipilosis, a *C. angolensi* sed petiolis distincte brevioribus et indumento differt.

C. serraefolius var. *lancifolius* Szyszyl., Polyp. Thalam. Rehmann.: 61 (1887) pro parte quoad specim. Rehmann 4200 (BM; K) nomen nudum. *C. trilocularis* sensu Burtt Davy, Man. Fl. Pl. Ferns Transv. & Swazil. 1: 257 (1926) pro parte excl. specim. Thornecroft 2058 et Nelson 381. Non *C. trilocularis* L.

Herba perennis, radice lignosa, ramulis annuis ad 0.6 m. longis subprostratis vel erectis omnibus partibus saltem juvenilibus patentipilosis. *Folia* petiolata, petiolo ad 8 mm. longo omnibus partibus patentipilosis; lamina ad 7×2.6 cm., anguste lanceolata vel ovata, utrinque praesertim nervis pilosa, apice acuta vel obtusa, basi rotundata vel leviter cordata ecaudata vel aliquando caudata c. 2 mm. longa, margine crenata vel crenato-serrata, nervis basalibus 3–5 valde arcuato-adscendentibus, nervis lateralibus utrinsecus 6–12, nervis omnibus supra leviter prominulis, subtus prominentibus; stipulae ad 6 mm. longae, setaceae, sparse pilosae. *Inflorescentia* axillaris; cymae pro nodo unicae, oppositifoliae, (1) 2–3-florae; pedunculi 0.4–2.5 cm. longi, omnibus partibus pilosis; pedicelli pedunculis similes, ad 0.8 cm. longi; bractee ad 6 mm. longae, setaceae, sparse pilosae. *Alabastra* ovoidea demum oblongo-ovoidea, plerumque apiculata. *Sepala* ad 1×0.15 cm., lineari-lanceolata vel anguste lanceolata, apice caudato-acuminata, extus pilosa. *Petala* flava, quam sepalis paullo breviores, oblanceolata vel obovata, basi breviter unguiculata ciliata. *Androgynophorum* c. 0.5 mm. altum ad apicem annulo glabro leviter undulato instructum. *Stamina* c. 50, filamentosa. *Ovarium* 3-loculare, trigono-cylindricum, dense pubescens; stylus c. 2.5 mm. longus, tenuis, glaber. *Capsula* c. 3×0.2 cm., subcylindrica, pedunculo fructuoso recto, apice obtusa, sparsissime scabroso-pilosa demum glabrescens; seminibus numerosis c. 2×1.2 mm. intense brunneo-griseis.

CAPE PROVINCE.—Griqualand East, Umzimkulu R., fl. & fr. xii. 1884, Tyson 1413 (K; PRE).

NATAL.—Zululand, Egoa Farm, fl. & fr. i. 1922, Curson s.n. (PRE); Hlabisa, fl. 10.iv.1954, Ward 2306 (PRE). Fort Yolland, fl. & fr. 19.iii. 1903, Medley Wood 8976 (PRE). Estcourt, fl. & fr. 15.xii.1937, West 527 (PRE).

TRANSVAAL.—Barberton, fl. & fr. ix–xii.1889, Galpin 577 (K; PRE). Johannesburg, fl. xi.1902, Rand 1061 (BM). Shiluvane, fl. iii–v.1905, Junod in Herb. Transv. Mus. 4895 (PRE). Lydenburg, Waterval Boven, fl. & fr. 20.xii.1914, Rogers 10933 (PRE). Pretoria, Aapies Poort, fl. & fr. 1875–1880, Rehmann 4200 (BM; K); Pretoria, fl. 6.xii.1919, Verdoorn 69 (PRE). Rietvlei Reserve, fl. & fr. xi.1946, Repton 3170 (PRE). Kruger National Park, 5 m. N. of Pretorius Kop, fl. & fr. 4.ii.1949, Codd & de Winter 4960 (K, holo.; PRE).

SWAZILAND.—Without precise locality, fl. vi.1910, *Stewart* in *Herb. Transv. Mus.* 8999 (PRE).

MOZAMBIQUE.—Lourenço Marques, Incanhini, fl. & fr. 13.i.1898, *Schlechter* 12024 (K). Umbeluzi, fl. & fr. 27.x.1952, *Myre & Carvalho* 1283 (LM; K).

SOUTHERN RHODESIA.—Gwelo District: 15.iv.1905, *Gardner* 40 (K). Gwanda District, fl. 17.xii.1956, *Davies* 2386 (K; SRGH).

This species has been frequently confused in the past with *C. asplenifolius*; superficially there is a resemblance but the straight fruiting peduncles and stems hairy on all sides render it easy of recognition as a rule. In addition there is on the whole a difference in leaf-shape and the fruits are always quite straight; in *C. asplenifolius* they are typically slightly falcate. *Burt Davy* (loc. cit.) included this taxon under *C. trilocularis* but our plant is an indigenous perennial and cannot be conspecific with the annual weed *C. trilocularis*, which is distributed throughout the tropics and subtropics of the Old World. Our plant is also very near *C. angolensis* but the latter species has markedly longer, more slender petioles and acuminate, ovate-lanceolate leaves: it is also more nearly glabrous and although quite closely related it has a noticeably different facies.

Corchorus merxmülleri Wild, sp. nov.; *C. angolensi* Exell & Mendonça affinis sed foliis ovatis utrinque dense stellato-tomentellis.

Suffrutex c. 2 m. altus ramis numerosis late patulis griseo-tomentellis demum glabrescentibus, cortice brunneo. *Folia* petiolata, petiolo ad 6 mm. longo, utrinque griseo-tomentello; lamina ad 2.2×1.6 cm., ovata, apice acuta, basi leviter cordata, margine valde serrato-dentata, utrinque griseo-tomentella, nervis lateralibus utrinsecus 4, supra inconspicuis, subtus prominentibus; stipulae ad 2 mm. longae, subulatae, griseo-tomentellae. *Inflorescentia* axillaris, cymae pro nodo unicae, oppositifoliae, 1–2-florae; pedunculi ad 2 mm. longi, griseo-tomentelli; pedicelli ad 5 mm. longi, griseo-tomentelli; bracteae 1.5 mm. longae, subulatae, griseo-tomentellae. *Sepala* $5-6 \times 0.75-1.0$ mm., anguste oblanceolata, apice longe acuminata, dorso leviter carinata, extus griseo-tomentella, intus glabra. *Petala* flava, 9×4.5 mm., anguste obovata, basi breviter unguiculata margine minute ciliata. *Androgynophorum* c. 0.5 mm. altum. *Stamina* c. 60, filamentosa. *Ovarium* 3-loculare, trigono-cylindricum, brevissime tomentellum; stylus 4 mm. longus, glaber. *Capsula* $3-4.5 \times 0.15$ cm., subcylindrica, leviter torulosa, obtuse 2 mm. rostrata, griseo-tomentella demum sparse stellato-puberula, pedunculis maturitate rectibus; seminibus numerosis brunneis c. 2×1 mm. subcylindricis.

SOUTH WEST AFRICA.—Karibib, Erongogebirge, fr. 17.ii.1953, *H. Kinges* 3257 (M): bush. Omaruru, Otjihorongo Reserve, N. sides of porphyritic koppies on the Ugab E. of Rooipoort, fl. & fr. 15.ii.1958, *H. Merxmüller & W. Giess* 1620 (M, type): bush 2 m. tall, 3 m. wide.

This species is similar in habit to and is related to *C. angolensis* Exell & Mendonça but its small ovate tomentellous leaves give it a very distinctive appearance. It is an unusually large plant for a *Corchorus* species.

Corchorus pinnatipartitus Wild, sp. nov.; *C. asplenifolio* Burch. affinis sed foliis profunde pinnatipartitis.

Herba perennis, radice lignosa, ramulis annuis usque ad 20 cm. longis suberectis vel prostratis glabris sed lineis pilis crispis munitis. *Folia* petiolata, petiolo ad 7 mm. longo, parte adaxiali pilosa, parte abaxiali glabra; lamina ad 2.5×1.2 cm., ambitu anguste oblonga sed profunde pinnatipartita usque ad $\frac{4}{5}$ lobata, aliquando ad basin

leviter palmatipartita, lobis versus folii basin majoribus obtusis vel subacutis simplicibus raro laterale 1-dentatis, apice obtusa vel subacuta, basi truncata vel leviter cordata ecaudata, utrinque minute punctulata, utrinque glabra vel costa subtus minute sparse puberula; stipulae 2 mm. longae, lanceolatae, apicibus subulatis. *Inflorescentia* axillaris; cymae pro nodo unicae, oppositifoliae, 1-3-florae; pedunculi c. 1 mm. longi vel nulli; pedicelli ad 1 cm. longi, tenues, puberuli; bractae c. 1 mm. longae, setaceae. *Sepala* plerumque purpurina, c. 7 mm. longa, oblanceolata, apice subacuta vel acuta, glabra. *Petala* flava vel plerumque roseo-purpurea suffusa, c. 7 mm. longa, anguste obovata, basi breviter unguiculata minute ciliata. *Androgynophorum* c. 0.25 mm. altum. *Stamina* numerosa, filamentosa. *Ovarium* 3-loculare, ellipsoideum, aliquantum trigonum, minutissime glanduloso-papillosum; stylus 3 mm. longus, glaber. *Capsula* c. 2×0.2 cm., subcylindrica, apice obtusa, sparse glandulosa, pedunculis plerumque contortis; seminibus numerosis fuscis 1.5×1 mm. subcylindricis angulatis.

CAPE PROVINCE.—Hay Division, Wilde-als Put, 16 miles East of Griquatown, frequent on red sand over limestone, fl. & fr. ii.1937, *Wilman* 4075 (K; KMG). Barkly West Division, Silverstreams, fl., 15.iii.1939, *Esterhuysen* 776 (BOL; K). Kuruman Division, Kuruman, limestone, Edmonstone-Sammons 54 (KMG); Cardington, common on surface limestone, fl. iv.i.1940, *Ferrar* s.n. (K; KMG); Cotton End, fl. & fr., iv.1940, *Ferrar* s.n. (K); Cardington, fl. & fr. iv.1940, *Esterhuysen* 2188 (K, type; BOL; PRE) Cotton End, limestone, fl. iv.1940, *Esterhuysen* 2251 (BOL; K; PRE): flowers opening in afternoon.

This species is close to *C. asplenifolius* Burch. but is very distinct because of its pinnatipartite leaves. It appears to be confined to limestone soils and to have a very restricted range of distribution.

VERBENACEAE.

Priva auricoccea A. Meeuse spec. nov., *P. curtisiae* Kobuski arcte affinis sed calycibus fructiferis majoribus sparse minuteque tuberculatis, fructu aurantiaco spinis longioribus horrido praecipue differt.

Suffrutex perennis c. 50 cm. altus e basi ramosus. *Caules* erecti quadrangulati pilis rectis vel subuncinatis puberuli vel hirtelli, demum glabrescentes. *Folia* ovato-oblonga vel subhastato-oblonga, obtusa, crenato-dentata, ad basin abrupte et anguste attenuata, pilis minutis setulosis subscabra, petiolis applanatis hirtellis subnullis vel interdum ad 7 mm. longis. *Racemi* 15-25 cm. longi, subhirtelli, pedicellis infra calycem dilatatis articulatisque post anthesin 1-2 mm. longis, bracteis lanceolatis acuminatis acutissimis 3-4 mm. longis. *Corolla* ignota. *Calyx* fructifer compresso-subglobosus pilis uncinatis subvelutinus, sparse minuteque tuberculatus, 7-9 mm. longus et latus. *Mericalpia* spinis rectis vel leviter curvatis 1-2 mm. longis horrida, fusco-aurea, hirsuto-puberula, c. 6 mm. longa, 4 mm. lata, 2.5 mm. crassa.

SOUTH WEST AFRICA.—Kaokoveld: 1.6 m. N.E. of Kaoko-Otavi on road to Ohopoho, de *Winter & Leistner* 5532 (PRE, holo.).

A perennial herb with tough base about 50 cm. tall, producing several erect and sparingly branched stems from the woody top of the rootstock. *Stems* more or less distinctly quadrangular becoming more terete when passing into the terminal spike-like racemes, rather densely leafy, shortly pubescent to hirsutulous with straight or sometimes more or less distinctly uncinuate hairs, the nodes between the petioles of the opposite-decussate leaves marked with a narrow band of longer stiff hairs. *Leaves* ovate or ovate-oblong to somewhat hastate-oblong, obtuse to rounded at the apex, broadly cuneate to subtruncate at the base, abruptly narrowed at the base into narrow lateral decurrent wings of the up to 7 mm. long, setulose-hispidulous petioles, with a

distinctly but usually not very deeply incised crenate or crenate-serrate margin, apparently rather dark green above, paler beneath, on both surfaces subscabrid through fine setulose-strigose hairs with slightly raised broad base; blade 2-4.5 cm. long and 1.2-3 cm. broad, with a venation (only conspicuous on lower surface, indistinct on upper surface) consisting of a rather slender midrib from which on either side at the base of the blade a usually unequally forked rarely single secondary vein branches off and higher up 3-5 usually unforked ones branch off, connected by rather distant more or less parallel tertiary veins oriented perpendicular to the secondary ones. *Racemes* 15-25 cm. long; the axis a direct continuation of the stem and with the same type of pubescence; pedicels ultimately 1.5-2 mm. long, dilated at the apex into a flat disc-shaped articulation with the calyx; bracts lanceolate-acuminate, setulose, 3-4 mm. long. *Corolla* unknown. *Fruiting calyx* inflated, nearly closed at the orifice, orbicular in outline, laterally compressed, subvelutinous with short stiff greyish-yellow straight to uncinat setose hairs and sparsely tuberculate with blunt or pungent small protuberances, 7-9 mm. long and broad, 3-4 mm. thick. *Fruit* of 2 dry 2-celled cocci (mericarps); cocci spinescent with 1-2 mm. long straight to distinctly curved spines, of a bright golden-brown colour caused by a dense pubescence of minute stiff hairs, with the spines measuring about 6 mm. by 4 mm. by 2.5 mm.

Although flowers are lacking, the plant is clearly a species of *Priva*, a genus whose species are mostly characterised by fruit characters, the flowers being, apart from differences in size and pubescence, rather uniform in structure. In Moldenke's monograph of the genus in Fedde, Repert. 41: 1-76 (1936) it would key out as *P. curtisiae* Kobuski, an East African species, to which it is indeed closely related on account of the cocci being spiny throughout on back and sides and which it also resembles very much in habit, shape and texture of leaves, type of pubescence, "bearded" stem-nodes, etc. but from which it differs in several respects. The petioles are longer, the fruiting calyx and cocci are larger and the spines on the cocci longer and more curved than in *P. curtisiae*, the calyx bears short protuberances (not found in *P. curtisiae*) and the fruit-cocci, which are flat on the commissural surface (not excavated as in *P. curtisiae*), are of a striking golden-brown colour, hence the proposed specific epithet. It is possible that more differences will be found once the flowers of *P. auricoccea* have been collected. Although the differences mentioned may appear to be rather small, they are not smaller than those between some of the other species of long standing in this genus. In view of the urgency in connection with the preparation of the proposed Flora of South West Africa by the workers of the Botanische Staatssammlung at Munich, the description is not delayed for lack of flowers which, in this genus, are not so important for diagnostic purposes as in most other genera.

