

OTTO KUNTZE TYPE SPECIMENS OF SOUTH AFRICAN PLANTS.

By R. A. Dyer.

In 1898 Otto Kuntze published his "*Revisio Generum Plantarum* vol. 3 pt. 2". In this he included an enumeration of specimens collected during his travels in South America (1891-2) and in South Africa (1894). An examination by American botanists of Otto Kuntze's type specimens of South American plants housed in the Herbarium of the New York Botanical Garden, revealed a large percentage of errors of identification. The suggestion was then made by the Head Curator of the Herbarium that an examination of the South African types would yield equally interesting results and that the types would be forwarded on loan to the National Herbarium, Pretoria, if it was desired to undertake the work. The offer was gratefully accepted and the present paper is the outcome.

As a general rule the types were found to be in a poor state of preservation due mainly to faulty preparation in the first place. Many of the specimens show marked evidence of mould. Not all the types cited by Kuntze were located in the New York Herbarium and it was suggested that some of those outstanding might have been misfiled. The following types were not seen by me, the page numbers being those of Kuntze's work cited above:—

Nasturtium riparium, p. 6.
Geranium robustum, p. 32.
Acacia latibracteata, p. 48.
Alepida aquatica, p. 110.
Anisothrix Kuntzei, p. 129.

Crocodilodes (Berkheya) amplexicaule, p. 143.
Euphorbia laxiflora, p. 286.
Sapium Simii, p. 293.
Tragia Bolusii, p. 293.

Some of these have been cited by later workers and in such cases their identifications are given with the reference to the respective publications. *Indigofera Kuntzei* (*Anila Kuntzei*) from Mosambique and *Limeum glaberrimum* from Delagoa Bay have been omitted. In most other cases the types have been matched with specimens in the National Herbarium, Pretoria. The examination of types of new varieties was not undertaken. It has been found necessary to establish the following new names and new combinations:—

Berkheya microcephala comb. nov. (*Stobaea microcephala* DC.) in a note under *Berkheya Kuntzei*.

Senecio Verdoorniae nom. nov. (*Hertia Kuntzei*).

Senecio paucicephalus nom. nov. (*Hertia natalensis*).

Gnidia gymnostachya (C. A. Mey.) Gilg. var. *phaeotricha* M. Moss comb. nov. (*Gnidia phaeotricha*).

Gnidia sericocephala (Meisn.) M. Moss comb. nov. (*Gnidia pretoriae*).

The identifications of the types are given in the order in which the descriptions appear in Kuntze's *Revision*. Where necessary the revised name follows that of Kuntze and the present accepted name is given in heavy type. I wish to express my appreciation of assistance with some of the indentificatons by specialists in certain groups. The names of such workers appear under the respective species or family.

TILIACEAE.

- Grewia Krebsiana* O. Kuntze, p. 26.—Cape Province; Beaufort West.
G. robusta Burch. Trav. 2, 133 (1824); Burret in Engl. Bot. Jahrb. 45, 195 (1911).
G. flava Harv. in Fl. Cap. I, 225 (1859–1860) not of DC.

MALPIGIACEAE.

- Triaspis transvalica* O. Kuntze, p. 29.—Transvaal; Pretoria.
Sphednocarpus transvaalicus (O. Kuntze) Burt Davy Fl. Transvaal I, 284 (1932): (*S. transvaalica* in error).

As in several other instances Kuntze omits one *a* from *vaal* in forming the specific epithet from Transvaal.

GERANIACEAE.

- Geranium robustum** O. Kuntze, p. 32; R. Knuth in Das Pflanzenr. 4, 129. 166 (1912)—Natal; Charlestown.

RHAMNACEAE.

- Phylica glabriflora* O. Kuntze, p. 39.—Cape Province; Caledon.
P. brevifolia E. & Z. Enum. 133 (1834).
 Identification by N. S. Pillans.

(Ampelidaceae) VITACEAE.

- Vitis* (*Cissus*) *cradockensis* O. Kuntze, p. 40.—Cape Province; Cradock.
Cissus quinata Ait. Hort. Kew. ed. 2, I. 260 (1810); Gilg & Brandt in Engl. Bot. Jahrb. 46, 521 (1912).
Vitis (*Cissus*) *repandospinulosa* O. Kuntze, p. 41.—Natal; Ladysmith.
Cissus humilis (N.E.Br.) Planch. in DC. Mon. Phan. 5, 2, 463 (1887); Gilg & Brandt l. c. 488.

The Kuntze type is very mouldy and under this unnatural covering can be seen scattered hairs on the stem and inflorescence. The term *glaberrima* used by Kuntze in the description is therefore inaccurate.

Authenticated material of *Cissus dolichopus* C.A.Sm. in the Nat. Herb. Pretoria, exhibits a variable pubescence and it is considered that this name should also be referred to the synonymy of *C. humilis* (N.E.Br.) Planch.

MELIANTHACEAE.

- Melianthus insignis** O. Kuntze, p. 43.—Natal; Charlestown.
M. Dregeana var. *insignis* Phill. & Hofmeyr in Bothalia 2, Ib. 352 (1927).
M. comosus Burt Davy in Fl. Transvaal I, 490 (1932), not of Vahl.

The type consists of two sheets, one each of flowers and fruits. Although closely allied to *M. Dregeana* the Kuntze species is sufficiently distinct to justify specific separation. In addition to its more robust habit, larger flowers and more densely pilose appearance, the fruits are considerably larger (1.5 cm. long) sub-oblong, with the valves strongly inflexed at the apex forming a depression, and not developed into a strong point as done by the inflexed valves of *M. Dregeana* Sond.

LEGUMINOSAE.

Anila pretoriana O. Kuntze, p. 52.—Transvaal; Pretoria.

Indigofera pretoriana Harms ex O. Kuntze l. c.

Calpurnia mucronulata Harms ex O. Kuntze, p. 54.—Natal; Van Reenen's Pass.

C. intrusa E. Mey. Comm. Pl. 2 (1835).

Cracca triphylla O. Kuntze, p. 57.—Natal; Krantzkloof.

Tephrosia macropoda E. Mey. Comm. Pl. 112 (1835).

T. triphylla Harms ex O. Kuntze l. c.

Identification by H. M. L. Forbes.

ROSACEAE.

Alchemilla Woodii O. Kuntze, p. 75.—Natal; Charlestown.

This species is very closely allied to *A. capensis* Thunbg. and is distinguished from it by the shortly pedicellate flowers somewhat exserted from small leaf-like bracts, and the much shorter outer calyx-lobes.

CRASSULACEAE.

Sedum (Crassula) cogmansense O. Kuntze, p. 83.—Cape Province; Cogmanskloof.

Crassula cogmansensis (O. Kuntze) K. Schum. in Just. Jahresb. 26, I. 347 (1900).

The type has not been matched with any specimen in the Nat. Herb. Pretoria. It belongs to the section *Sphaeritis* Harv. and is evidently closely allied to *C. subaphylla* (E. & Z.) Harv., but differs in the short glabrous, ovate-acute leaves. The plant is apparently somewhat laxly branched. Schonland in Trans. Roy. Soc. S. Afr. 1930 omits mention of *C. cogmansensis*.

Sedum crassiflorum O. Kuntze, p. 84.—Natal; Glencoe.

Crassula vaginata E. & Z. Enum. 298 (1836).

C. crassiflora (O. Kuntze) K. Schum. l. c.

Schonland, l.c. 226, gives the name as "*Cr. crassifolia* O.K.n.sp." possibly taking it incorrectly from a herbarium sheet of the type number. The type sheet has written on it "*Sedum crassiflora*".

Sedum (Crassula) transvalense O. Kuntze, p. 85.—Transvaal; Johannesburg.

Crassula transvaalensis (O. Kuntze) K. Schum., l.c.

Schumann, it will be noted, corrected the spelling of the specific epithet. The label of the type specimen is written up as "*Crassula transvaaliensis* O.K." and Schonland, l.c. 188, has used this form.

(Bruniaceae) VERBENACEAE.

Ptyxostoma quadrifidum O. Kuntze, p. 86. (Bruniaceae); Cape Province; Caledon.

Campylostachys cernua Kunth in Abh. Akad. Berlin 1831, 207 (Verbenaceae).

Kuntze went completely astray in the identification of this plant. Drawings of dissections on the type sheet are inaccurate. The type matches several authentically named specimens of *Campylostachys cernua* in the Nat. Herb. Pretoria, including duplicates of the Burchell and Zeyher gatherings.

LYTHRACEAE.

Nesaea Kuntzei *Koehne ex O. Kuntze*, p. 97.—Natal; Ladysmith.

The type is not matched in the Nat. Herb. Pretoria.

FICOIDEAE.

(Identifications by Dr. L. Bolus.)

Mesembryanthemum cradockense *O. Kuntze*, p. 109.—Cape; Cradock.

There are two mounted specimens of this in the New York Herbarium.

Mesembryanthemum pulvinatum *O. Kuntze*, p. 109—Cape Province; Beaufort West.

Chasmatophyllum musculinum (*Haw.*) *Schw.* in *Zeitschr. Sukkulentenk.* 3, 30 (1927).

There are four sheets of this in the New York Herbarium.

Mesembryanthemum subspinosum *O. Kuntze*, p. 109.—Cape Province; Cradock.

Drosanthemum obliquum (*Willd.*) *Schw.*, l.c. 18.

“As far as the material goes the Kuntze type agrees with this species” L. Bolus.

UMBELLIFERAE.

Alepida aquatica *O. Kuntze*, p. 110.—Cape Province; Toise River Station.

Alepidea amatymbica *Ecklon & Zeyher* *Enum.* 1836, 339; *Dümmer* in *Trans. Roy. Soc. S. Afr.* 3, 5 (1913).

RUBIACEAE.

Plectronia Chamaedendrum *O. Kuntze*, p. 122.—Natal.

Pygmaeothamnus Chamaedendrum (*O. Kuntze*) *Robyns Monog. Vangueriae* 1928, 35.

DIPSACEAE.

Cephalaria natalensis *O. Kuntze*, p. 126.—Natal; Van Reenen's Pass.

Except that it is somewhat more densely pubescent the type is well matched by several specimens in the Nat. Herb. Pretoria.

COMPOSITAE.

Berkheyopsis Kuntzei *O. Hoffm. ex O. Kuntze*, p. 136.—Cape; Modderriver Station.

B. Echinus (*Less.*) *O. Hoffm.* in *Engl. Prantl. Natur. Pflanz. Fam.* 4, 5. 311 (1894).

Gazania Burchellii *DC. Prod.* 6, 514 (1837); *Harv.* in *Fl. Cap.* 3. 479 (1864–1865) in part.

Harvey, l. c., cites several specimens under *Gazania Burchellii*. Judging by the description of the type and by an examination of a duplicate of *Zeyher* 976, one of the cited specimens, it appears likely that Harvey included two distinct species under the one name. The specimen of *Zeyher* 976, in the Nat. Herb. Pretoria, is a small plant agreeing with Harvey's description as far as it goes. Further, it has obtuse lacerate outer pappus scales, and those of the inner row are glabrous, whereas, in the majority of specimens in the Nat. Herb., which agree better with De Candolle's description of *G. Burchellii*, the outer pappus scales are linear-lanceolate, occasionally slightly lacerate in the upper half: the inner row are lanceolate and pubescent. These specimens agree also with the type of *Berkheyopsis Kuntzei*. On the assumption, however, that Harvey was correct in associating *Hirpicium Echinus* Less. (1832) with *Gazania Burchellii* DC. (1837), the Kuntze type of *Berkheyopsis Kuntzei* *O. Hoffm.* is identified as *B. Echinus* (*Less.*) *O. Hoffm.*

Cotula radiata O. Hoffm. ex O. Kuntze, p. 142.—Cape Province ; Toise River Station.

Matricaria nigelliflora DC. Prodr. 6, 50 (1837).

The type specimen of *Cotula radiata* O. Hoffm. was not well prepared and during drying the leaves shrivelled and lost the characteristic glaucous appearance.

Crocodylodes amplexicaule O. Kuntze, p. 143.—Natal ; Krantzklouf.

Berkheya amplexicaulis O. Hoffm. ex O. Kuntze l.c.

No specimen seen.

Crocodylodes arctiifolium O. Kuntze, p. 143.—Natal ; Van Reenen's Pass.

Berkheya montana Wood & Evans in Journ. Bot. 1897, 351.

B. arctiifolia O. Hoffm. ex O. Kuntze l.c.

The Kuntze specimen is covered with an unnatural "cobweb" which makes the indumentum appear denser than it is in reality.

Crocodylodes Kuntzei O. Kuntze, p. 143.—Cape ; Modder River Station.

Berkheya Kuntzei O. Hoffm. ex O. Kuntze l.c.

There are two specimens of this in the New York Herbarium, the type from Modder River Station and the other from Aliwal North. They show a close relationship to *Berkheya microcephala* comb. nov. (*Stobaea microcephala* DC.)

Gnaphalium amplum O. Kuntze, p. 150.—Natal ; Krantzklouf.

Helichrysum platypterum DC. Prodr. 6, 201 (1837).

H. amplum O. Hoffm. ex O. Kuntze l.c.

Moeser in Bot. Jahrb. 44. 341 (1910) suggests the above identification and this seems justified.

Gnaphalium athrixifolium O. Kuntze, p. 150.—Natal ; Colenso.

Helichrysum athrixifolium O. Hoffm. ex O. Kuntze l.c.

Moeser l. c. 221, upholds this species. It is very closely allied to *H. rugulosum*, Less. and *H. polycladum* Klatt, being about intermediate between these in the size of the capitulum : the involucre bracts are light straw coloured as in *H. rosam* Less., another closely allied species.

Gnaphalium Kuntzei O. Kuntze, p. 152.—Natal ; Charlestown.

Helichrysum Kuntzei O. Hoffm. ex O. Kuntze, l.c.

Moeser, l.c., 279, upholds this species. It is closely allied to *H. simillimum* DC. and *H. capitellatum* Less.

Gnaphalium mixtum O. Kuntze, p. 152.—Cape Province ; Cathcart.

Helichrysum mixtum O. Hoffm. ex O. Kuntze, l.c.

Moeser, l.c., upholds this species but mentions that it is difficult to justify this owing to the close similarity to *H. longifolium* DC. and the apparent polymorphism in species of this group.

Gnaphalium plantaginifolium O. Kuntze, p. 153.—Cape Province ; Cathcart.

Helichrysum coriaceum Sond. in Linnaea 23, 65 (1850) not of Harv. ; Moeser, l.c. 264.

H. plantaginifolium O. Hoffm. ex Kuntze, l.c.

Gnaphalium pulviniforme O. Kuntze, p. 153.—Natal ; Van Reenen's Pass.

Helichrysum Sutherlandi Harv. in Fl. Cap. 3, 218 (1864-1865) ; Moeser, l.c. 306.

H. pulviniforme O. Hoffm. ex O. Kuntze, l.c.

Gnaphalium Thapsus O. Kuntze, p. 154.— Natal ; Highlands Station.

Helichrysum Thapsus O. Hoffm. ex O. Kuntze, l.c. ; Moeser, l.c. 263.

Hertia Kuntzei O. Hoffm. ex O. Kuntze, p. 157.—Transvaal ; Pretoria.

Senecio Verdoorniae nom. nov.

The Kuntze type is almost identical with *Verdoorn* Nos. 635, 636, 663 and other specimens in the Nat. Herb. Pretoria collected in the Fountains Valley, Pretoria, which is as likely as not where Kuntze collected his type.

S. Verdoorniae is closely allied to *S. albanensis* DC. and one was inclined to regard it as a variety of that species, but *S. albanensis*, already credited with a multitude of forms, and a somewhat unwieldy species in consequence, would have been "stretched" to breaking point to accommodate it. Some of the so called forms of *S. albanensis* may later be segregated as specifically distinct.

The existence of the name *Senecio Kuntzei* necessitates the application of a new name for Kuntze's species, *Hertia Kuntzei*.

Hertia natalensis O. Hoffm. ex O. Kuntze, p. 157.—Natal ; Mooi River Station.

Senecio paucicephalus nom. nov.

The Kuntze type is very closely allied to *Senecio albanensis* var. *leiophyllus* Harv. The capitula are solitary on the scapes and a very close match is present in Mogg 7061, which has two capitula on the scape. This was collected in the same area as the type. The base of two capitula on the type are enlarged in a manner suggesting some "fly" infestation which is not an unusual occurrence in the *Compositae*. The author overlooked the abnormality and described the involucre "involucro fructifera basi suberoso-incrassato". Only a single short narrow ray-flower was observed in a capsule on the sheet. Assuming that Kuntze's specimen is specifically distinct from *S. albanensis*, it requires a new name as the specific epithet *natalensis* is already occupied in the genus *Senecio*.

Leontonyx Pumilio O. Hoffm. ex O. Kuntze, p. 162.—Cape Province ; Beaufort West.

Helichrysum laneum S. Moore in Journ. Bot. 1918, 6.

The name *Helichrysum pumilum* Hook. f. is applied to a distinct species and to avoid ambiguity the Hoffm. epithet should not be used.

Leontonyx ramosissimus O. Hoffm. ex O. Kuntze, p. 162.—Cape Province ; Cradock.

Helichrysum lucilioides, Less. Syn. Comp. 290 (1832).

The type of *Leontonyx ramosissimus* O. Hoffm. shows obvious signs of having been grazed and is consequently unnaturally dwarfed.

Osteospermum glaberrimum O. Hoffm. ex O. Kuntze, p. 165.—Natal ; Krantzklouf.

The type has not been matched exactly but it is possibly a form of *O. imbricatum* L., a species which, according to the view of T. Norlindh, is extremely variable. The type differs from all other specimens examined by the absence of the characteristic glandular hairs on the peduncle and pedicels.

Senecio arabidifolius O. Hoffm. ex O. Kuntze, p. 171.—Cape Province ; Molteno.

The type agrees well with *Flanagan* 2726 (collected between Cala and Encobo) and *Dieterlen* 1073 (Basutoland) but is slightly more glandular-pubescent than these and in this respect differs from the closely allied species *S. pseudorhyncholaenus* Thell. 1923, which, however, might, with reason, be considered as only a form of *S. arabidifolius*.

Senecio cathcartensis O. Hoffm. ex O. Kuntze, p. 172.—Cape Province ; Cathcart.

The type was not matched exactly, but approaches closely to *S. erubescens* Ait. Features of importance are the long-petioled basal leaves and the glabrous leaves and achenes.

Senecio colensoensis O. Hoffm. ex O. Kuntze, p. 172.—Natal; Colenso.

This appears most nearly allied to *S. pentactinus* Klatt. It is matched closely in the Natal Herbarium, Durban, but not in the Nat. Herb. Pretoria.

Senecio fibrosus O. Hoffm. ex O. Kuntze, p. 174.—Cape Province; East London.

S. pachythelis Phill. & Smith in Rep. Vet. Serv. & Anim. Ind. S. Afr. 1931, 640.

This is another species extracted from the *S. albanensis* complex.

Senecio Kuntzei O. Hoffm. ex O. Kuntze, p. 175.—Natal; Van Reenen's Pass.

S. glaberrimus DC. Prod. 6, 403 (1837).

The Kuntze type agrees with several authentically named specimens in the Nat. Herb. Pretoria.

Senecio lunayaefolius O. Hoffm. ex O. Kuntze, p. 175.—Natal; Highlands Station.

S. paucicalyculatus Klatt in Bull. Herb. Boiss. 4, 468 (1896).

The label on the type bears the name *S. launaeifolius* O. Hoffm.

Senecio subrubriflorus O. Hoffm. ex O. Kuntze, p. 178.—Natal; Van Reenen's Pass.

S. viscidus N.E. Br. in Kew Bull. 1901, p. 125.

This species is closely allied to *S. rhyncholaenus* DC., *S. arabidifolius* O. Hoffm. and *S. pseudo-rhyncholaenus* Thell. mentioned above. It differs from all these in the slightly larger capitula with more exerted florets. It has not been matched exactly in the Nat. Herb. Pretoria, but there is a number of specimens, including Wood 5221, from Mooi River, which are considered equal to it. There is no doubt that the species mentioned above and their allies require very careful study with a view to a revision. The value of characters such as colour of flower, habit, etc., for species delimitation must be given special attention.

CAMPANULACEAE.

Dortmannia decurrentifolia O. Kuntze, p. 187.—Cape Province; East London.

Lobelia Erinus Linn. var.

L. Erinus Linn. var. *bellidifolia* Sond. in Fl. Cap. 3, 544 (1864–1865) in part at least.

A decision whether to recognise several closely allied species to *L. Erinus*, or to regard the latter as a composite species with several varieties is left for a monographer to decide. There are several older epithets than *decurrentifolia* to be taken into account in this complex.

Dortmannia vanreenensis O. Kuntze, p. 188.—Natal; Van Reenen's Pass.

Lobelia patula L.f. Suppl. 1781, 395.

The Kuntze type agrees with several specimens in the Nat. Herb. Pretoria, which are apparently correctly named.

Lightfootia corymbosa O. Kuntze, p. 188.—Natal; Krantzklouf.

L. Huttoni Sond. in Fl. Cap. 3, 556 (1864–1865).

The Kuntze type is evidently only a slightly more robust form than the typical form of *L. Huttoni*.

EBENACEAE.

Royena Guerkei O. Kuntze, p. 196.—Natal; Charlestown.

The type specimen is somewhat defoliated but the leaves that are present, and the fruit preserved in a capsule are matched very closely by several specimens in the Nat. Herb. Pretoria. They are probably not specifically distinct from specimens referred to *R. ambigua*

by Hiern in Fl. Cap. 4, 1. 457 (1906), not of Vent. It might be contended that these represent forms of *R. pallens* Thunbg., but in the present uncertain state of our knowledge of this group it seems advisable to retain *R. Guerkei* with specific rank.

Royena Simii O. Kuntze, p. 196. p.—Cape Province; Kingwilliamstown.

BORAGINACEAE.

Heliotropium Kuntzei Guerke ex O. Kuntze, p. 205.—Cape Province; Modder River Station.

H. lineare (E. Mey.) C. H. Wright in Fl. Cap. 4, 2.9 (1904).

Although Wright did not include the name *H. Kuntzei* in his account of the genus, l.c.7., the Kuntze type agrees very closely with specimens named *H. lineare* by him.

SCROPHULARIACEAE.

Harveya cathcartensis O. Kuntze, p. 234.—Cape Province; Cathcart.

H. speciosa Bernh. ex Krauss in Flora 1844, 831.

The anthers of the type specimen of *H. cathcartensis* have only one developed anther theca, which is a characteristic feature of *H. speciosa*. Although the type of *H. cathcartensis* has a more congested inflorescence than is usual for *H. speciosa* it is not considered specifically distinct from it.

Limosella longiflora O. Kuntze, p. 235.—Natal; Van Reenen's Pass.

L. lineata Glk. in Bot. Jahrb. 66, 555 (1934).

L. aquatica auctorum non Linn.

L. tenuifolia auctorum non Nuttall.

L. aquatica var. *tenuifolia* auctorum nec Wolff nec Hoffm.

Glück, l.c., 556, retained *L. longiflora* O. Kuntze as distinct from his *L. lineata*, apparently basing his conclusion on Kuntze's description. The distinction drawn is the strongly 5-nerved calyx of the former. The nervation is certainly more pronounced in the Kuntze type than in most specimens of *L. lineata* in the Nat. Herb. Pretoria, but even on the Kuntze type the nervation is not uniformly conspicuous and in some flowers it is no more so than in some specimens of *L. lineata*. For this reason the name *L. longiflora* is adopted.

Nycterina Microsiphon O. Kuntze, p. 238.—Natal; Van Reenen's Pass.

Zaluzianskya Microsiphon K. Schum. in Just. Jahresb. 24, I. 395, Hiern in Fl. Cap. 4, 2.344 (1904).

The type specimen consists of a stout perennial herbaceous plant broken into two pieces, the basal portion having been detached from the rootstock. The terminal portion was evidently damaged during or prior to the flowering period, resulting in the production of ten or more lateral branches, each bearing flowers in the axils of the upper bracts. Three flowers were dissected, two of which were found to have been damaged by insects, the other however, contained two stamens and two staminodes. The specimen was not matched in the Nat. Herb. Pretoria.

LABIATAE.

Plectranthus Kuntzei Guerke ex O. Kuntze, p. 260.—Natal; Clairmont.

The type specimen appears to be specifically equal to a specimen of Wood 3390 named at Kew as *P. petiolaris* E. Mey. and cited in Fl. Cap. 5, I. 272 (1910). Wood 3390, however, is much more slender than a duplicate of Rudatis 339 (identified as *P. petiolaris* E. Mey.)

from Alexandra County, Natal, which is much nearer to the type locality of *P. petiolaris* in Pondoland. There is some measure of doubt, therefore, whether *P. Kuntzei* is conspecific with *P. petiolaris* and it is not deemed profitable to make a dogmatic statement on the issue in the light of inadequate records.

P. parviflorus Guerke ex O. Kuntze, p. 261.—Cape Province; East London.

P. strigosus Benth. ex E. Mey. Comm. 229 (1837).

As suggested in a note under *P. parviflorus* in Fl. Cap. 5, I. 281 (1910), the above synonymy appears well justified.

Stachys Kuntzei Guerke ex O. Kuntze, p. 262.—Natal; Van Reenen's Pass.

This species is retained by Skan in Fl. Cap. 1.c. 344.

POLYGONACEAE.

Oxygonum delagoense O. Kuntze, p. 268.—Delagoa Bay.

This species is retained by Wright in Fl. Cap. 5, I. 461 (1912). The classification of specimens in this genus is largely dependent on fruiting material and this is rarely satisfactorily preserved. The Kuntze type specimen is now without fruits and the type of his variety *robustum* is without either flowers or fruits.

PROTEACEAE.

Protea conchiformis O. Kuntze, p. 278.—Cape Province; Caledon.

Leucadendron venosum R. Br. in Trans. Linn. Soc. 10, 59 (1811); Phill. & Hutch. in Fl. Cap. 5, I. 720 (1912).

There are two specimens in the Kuntze collection named *Protea conchiformis*, the type from Sir Lowry's Pass, 200 m. alt., 20-I-1894, and the other from 350 m. alt. 22-I-1894. The latter appears to be *Leucadendron grandiflorum* R. Br. but no fruit is available to confirm this suggestion.

Protea xanthoconus O. Kuntze, p. 278.—Cape Province; Caledon.

Leucadendron salignum B. Br. in Trans. Linn. Soc. 10, 62 (1811).

L. xanthoconus (O. Kuntze), K. Schum. in Just. Jahresb. 26, I. 364.

It is suggested in Fl. Cap. 5, I. 721, that the Kuntze specimen is equal to either *L. uliginosum* R. Br. or *L. salignum* R. Br. No male flowers are present on the Kuntze type and it is difficult to decide to which of these two species it should be referred. It agrees well, however, with a specimen collected in the same district, namely Caledon, by T. J. Stokoe, which has a glabrous male perianth-tube and which agrees closely in other essential respects with *L. salignum*.

Scolymocephalus lanuginosus O. Kuntze, p. 279.—Natal; Van Reenen's Pass.

Protea Rouppelliae Meisn. in DC. Prod. 14, 237 (1856); Phill. & Stapf in Fl. Cap. 1. c. 573 (1912).

THYMELAEACEAE.

(With the assistance of M. Moss.)

Gnidia Kuntzei Gilg ex O. Kuntze, p. 280.—Cape Province; Middelburg Road.

C. H. Wright in Fl. Cap. 5, 2. 70 (1915) cites *G. Kuntzei* Gilg as a synonym of *Lasio-siphon microphyllus* Meisn., but the type of the latter, a Drège specimen, was collected near the mouth of the Orange River in the Richtersveld and is now considered specifically distinct from the Kuntze specimen and others cited by Wright, l. c., from the Middelburg and adjacent districts.

Gnidia phaeotricha Gilg ex O. Kuntze, p. 281.—Natal; Van Reenen's Pass.

G. gymnostachya (C. A. Mey.) Gilg var. **phaeotricha** M. Moss comb. nov.

Arthrosolen phaeotrichus (Gilg) C. H. Wright, l. c. 8.

The type of *Gnidia phaeotricha* is without flowers but a comparison of it with several authentically named specimens supports the above classification.

Gnidia polyclada Gilg ex O. Kuntze, p. 281.—Cape Province; Aliwal North.

Arthrosolen polycephalus (E. Mey.) C. A. Mey. in Bull. Phys. Math. Acad. Petersb. I. 359 (1845); Wright, l. c. 4.

Gnidia pretoriae Gilg ex O. Kuntze, p. 281.—Transvaal; Pretoria.

Gnidia sericocephala (Meisn.) M. Moss, comb. nov.

Arthrosolen sericocephalus Meisn. in DC. Prod. 14, 561 (1857); Wright, l. c. 5.

EUPHORBIACEAE.

Claoxylum ? sphaerocarpum O. Kuntze, p. 284.—Natal; Clairmont.

Croton sylvaticus Hochst. ex Krauss in Flora 1845, 82; Prain in Fl. Cap. 5, 2. 413 (1920).

Euphorbia laxiflora O. Kuntze, p. 286.—Cape Province; East London.

E. bubalina Boiss. Cent. Euphorb. 26, and in DC. Prodr. 15, 2. 90 (1862); N.E.Br. in Fl. Cap. 5, 2. 335 (1915).

Jatropha Woodii O. Kuntze, p. 287; Prain l. c. 425—Natal; Ladysmith.

Ricinocarpus depressinervius O. Kuntze, p. 291.—Natal; Mooi River Station.

Acalypha depressinervius (O. Kuntze) K. Schum. in Just. Jaresbr. 26, I. 348; Prain l. c. 479.

Sapium Simii O. Kuntze, p. 293; Prain l. c. 514.—Cape Province; Pirie.

Tragia Bolusii O. Kuntze, p. 293.—East Griqualand; Clydesdale.

T. Meyeriana Müll. Arg. in DC. Prodr. 15, 2. 938 (1866); Prain l. c. 508.

Tragia durbanensis O. Kuntze, p. 293; Prain l. c. 510—Natal; Durban, Bluff.

IRIDACEAE.

Gladiolus pretoriensis O. Kuntze, p. 308.—Transvaal; Pretoria.

Gladiolus tritoniaeformis O. Kuntze, p. 308.—Natal; Howick.

G. crassifolius Baker in Journ. Bot. 1876, 334.

Identification by G. J. Lewis.

AMARYLLIDACEAE.

Hessea Schlechteri O. Kuntze, p. 310.—Natal; Mooi River.

Nerine pancratioides Baker in Gard. Chron. 1891, 576.

N. Schlechteri Baker sp. nov. in Bull. Herb. Boiss. ser. 2, 3. 665 (1903).

Identification by W. F. Barker.

LILIACEAE.

Aloe cascadiensis O. Kuntze, p. 313.—Cape Province ; East London.

A. striatula Haw. in Phil. Mag. 1825, 281.

This identification is suggested by Berger in Das Pflanzenf. 1908, 261. G. W. Reynolds who examined the type (which is very poor) qualified his agreement by stating that he did not know *A. striatula* from near East London but only in the mountains further inland.

Aloe transvaalensis O. Kuntze (*transvalensis*) p. 314 ; Berger l.c. ; Transvaal ; Pretoria.

Asparagus spinosissimus O. Kuntze, p. 315.—Cape Province ; Cathcart.

This is matched by *Galpin* 2095 from near Queenstown. It is closely allied to *A. suaveolens* Burch.

Phalangium tenuifolium O. Kuntze, p. 317.—Cape Province ; Caledon.

Bulbine tenuifolia Baker ex O. Kuntze l.c.

The type specimen is very poor ; the inflorescence has been reduced to a few young buds. It was not matched in the Nat. Herb. Pretoria.

RESTIACEAE.

Thamnochordus maximus O. Kuntze, p. 330.—Cape Province ; near Cape Town.

Thamnochortus spicigerus (*Thunb.*) R.Br. Prod. 224 (1810) ; N. S. Pillans in Trans. Roy. Soc. 16, 383 (1928).

