A Contribution to the Flora of Australia.

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(PLATES 11, 12.)

[Read 19th June, 1919.]

- I. On two Species of *Tribulus* described by Robert Brown.
- II. Some New or Rare West Australian Plants from the recent Collections of Dr. F. Stoward and Mr. J. E. C. Maryon.
- III. Some New or Rare Australian Species of older Collections.

DURING the past few years I have devoted considerable time to work upon the Australian collections at the British Museum, and in the following pages have put on record some of the results yielded by investigation of the older collections and also of two others more recently received. For this work the chief guide has been Bentham's invaluable though now somewhat antiquated 'Flora Australiensis,' fortified by Mueller's 'Second Systematic Census of Australian Plants' and the extensive and evergrowing literature published subsequently. No attempt, it must be understood, is made to reveal fully the Museum treasures; though had this not been the case, considerable diversities in the range of species as compared with those given by Bentham, as also in the names of collectors, could have been set on record. Especially would this have applied to some of the recent German monographs dealing with the plants of Australia: namely, those written without a visit to this country—a deviation from the old custom very much to be deprecated—and in consequence often quite ludicrously inadequate in the matter of citation.

The work has been rendered more difficult owing to the comparative rarity of Bentham's visits to the Museum, so that his handwriting is not often in evidence upon the sheets. This is the more remarkable inasmuch as Brown's plants, besides those of Banks and Solander, were easily available for examination. This failure to devote the requisite time to Brown's collections was unfortunate, as some of the material even now remains unnamed, of which neglect the reader will find an instance in the pages of this memoir devoted to the genus *Phyllanthus*. Another matter for regret is that Brown left unpublished so many of his MS. descriptions, as thereby several hundred types were lost to the establishment of which he was the ornament and ever will be the glory.

I. ON TWO SPECIES OF *TRIBULUS* DESCRIBED BY ROBERT BROWN.

(Plate 11. A.)

Tribulus Hystrix, R. Br. (Pl. 11. A. fig. 1) is a plant which has been mistaken by Bentham and other writers on the Australian flora. Brown's

description * is as follows :—"lanatus, foliis 8-10-jugis, fructibus undique tectis spinis subulatis longitudine inæqualibus: majoribus sparsis longitudinem cocci superantibus.

Loc. 'In collinis areno-is. Lat. 26°.' D. Sturt.

Descr. Herba diffusa, sericea, incana. Folium majus cujusque paris 8-10-jugum, foliolis ovatis. Flores magni. Calyx æstivatione leviter imbricata. Petala calyce duplo longiora. Stamina decem, antheris linearibus."

Under *T. Hystrix*, Bentham † remarks: "The specimens"—he cites as collectors A. Cunningham (N.W. Coast), Gregory (Nichol Bay), Warburton (towards Spencer's Gulf), curiously enough failing to mention Sturt—"I have seen are most of them very incomplete, and those described by R. Brown unfortunately mislaid" [at the Museum]. One suspects here a merely cursory search, for the specimen has long been in its place among the species of *Tribulus*. It is to this that Bentham's error is due, as the plant he understands as *T. Hystrix* is obviously not that of Brown.

A few further details about *T. Hystrix* may now be given :—

Planta saltem hispithamea indumento dilute fulvo oblecta. *Caulis* erectus, sparsim ramosus, sat validus. *Foliola* basi obliqua necnon aliquantulum cordulata, pleraque 8-10 mm. long., 4-5 mm. lat. *Stipulae* lanceolato-tri-angulares, circa 5 mm. long. *Pedicelli* 2.5-3.5 cm. *Flores* pauci ægre 5 cm. diam. *Sepala* lineari-lanceolata, 13 mm. long. *Petala* obovata, circiter 2.5 cm. long. *Fructus* fere 3.5 cm. diam.: hujus spinæ longiores adusque 15 mm., breviores $\pm$ 5 mm. long.

After describing *T. Hystrix*, Brown (*l.c.*) continues :—

"Obs. 1. A species nearly related to *T. Hystrix*, found on the west coast of Australia, or on some of its islands, in the voyage of the 'Beagle,' may be distinguished by the following character. *Tribulus (occidentalis)* sericeo-lanatus, foliis suboctojugis, coccis undique densè armatis: spinis omnibus conico-subulatis longitudine invicem æqualibus. These two species differ from all others in the uniform shape of the spines, which equally cover the whole external surface of the fruit." (Pl. 11. A. fig. 2.)

Bentham (*l.c.*) merges *T. occidentalis* in *T. Hystrix* "from the short diagnosis given," although doubt might well have entered his mind at this point, since, while the specimens he considers to represent *T. Hystrix* have flowers "smaller than in *T. cistoides*," Brown expressly says that that species has "flores magni," and the floral difference should have led him, irrespective of Brown's reputation, to suspect difference in the fruit. Unfortunately the type of *T. occidentalis* has been mislaid at the Museum, but material there (North Goulburn Island; A. Cunningham: N.W. Coast; *Id.* 133 of 1818

* Append. Sturt Exped. Cent. Austral. p. 69; reprinted in R. Brown's Misc. Bot. Works, i. p. 318.

† Fl. Austral. i. p. 289.

coll.: N.W. Coast; *De Bouley*), with one small exception to be noticed soon, agrees with Brown's description, as also with material at Kew authenticated in Bentham's handwriting as the writer's conception of *T. Hystrix*. Flower and fruit apart, the two species (*Hystrix* and *occidentalis*) are very like one another, the flowers of *occidentalis* being much smaller and the fruits clearly different. As contrasted with similar organs of *T. Hystrix*, the following points may be mentioned:—*Pedicelli* 1·5–2·5 cm. long. *Flores* pauci 2·5 cm. diam. *Sepala* lineari-lanceolata, 8 mm. long. *Petala* obovata, 13 mm. long. *Fructus* summum modo 2 cm. diam.; horum spinæ intersese parum inæquales, sc. longiores 8 mm. breviores 5 mm. long.

Bentham's *T. Hystrix* may thus safely be considered to be conspecific with Brown's *T. occidentalis*, the slight and not at all obtrusive inequality in the spines on the fruit having evidently been overlooked by Brown when drawing up his description.

The *T. Hystrix* referred to by Mueller* as collected by Giles at Lake Amadeus may perhaps be the true plant of Brown, as he notes its having petals sometimes an inch long; but the material cannot have been in ripe fruit, or Mueller would not have considered it (*l.c.*) as conspecific with a Dampier Archipelago (*i.e.* N.W. Coast) plant of Hughan and Walcott, which is almost certainly *T. occidentalis*. That Mueller did not know the difference between *Hystrix* and *occidentalis* is clear from his giving† West, South, and North Australia for the distribution of *T. Hystrix*, which, so far as known, is a Central Australian desert species.

Two very small specimens at Kew from Central Australia (*Gosse* 230 and *Babbage* 7) may perhaps belong to *T. Hystrix*, but they are in flower only.

The Australian species of *Tribulus* and *Eutribulus* may be tabulated as follows:—

I. Cocci of fruit winged and without prickles.

Glabrous or nearly so. Cocci smooth between the

wings *T. platypterus*, Benth.

Hirsute. Cocci reticulate between the wings..... *T. hirsutus*, Benth.

Cocci of fruit winged and provided with conical prickles.

Fruit prominently angled *T. macrocarpus*, F. Muell.

Fruit rounded *T. Forrestii*, F. Muell.

II. Wingless cocci provided with prickles.

Prickles few, short, more or less conical.

Annual. Flowers small *T. terrestris*, Linn.

Perennial. Flowers 3·5–4 cm. in diameter *T. cistoides*, Linn.

Annual. Flowers upwards of 2 cm. in diameter . *T. ranunculiflorus*,

Prickles numerous, subulate or conico-subulate. [F. Muell.

Flowers large. Fruit nearly 3·5 cm. across..... *T. Hystrix*, R. Br.

Flowers of medium size. Fruit up to 2 cm. across *T. occidentalis*, R. Br.

* Frag. Phyt. Austral. xi. p. 30.

† Sec. Cens. Austral. Pl. p. 22.

The plants of Captain Sturt, a name perhaps better known now in connection with the Sturt Pea (*Clianthus Dampieri*, A. Cunn.) than as that of an explorer, were collected during his second expedition into the interior of South Australia, 1844-6. As examined by Robert Brown, the collection comprised only about a hundred species, of which Brown described six and twenty. A large proportion of those left unnoticed were too unsatisfactory for description; but here and there will be found a specimen sufficiently good for naming, and very occasionally so, as a new species, of which statement an instance will be given hereafter (*vide* p. 210).

II. SOME NEW OR RARE WEST AUSTRALIAN PLANTS

from the recent Collections of Dr. F. Stoward and Mr. J. E. C. Maryon.
(Plate 12. A).

Dr. F. Stoward, of Leederville, near Perth, has sent from time to time a large number of specimens to the Museum. His range of opportunity has been extensive, and the result of his efforts is correspondingly important. The chief localities are Kununoppin, 130 miles E. by N. from Perth, Nungarin, Bruce Rock, Mount Marshall, Wongan Hills, and Cowcowing, the three last from 100 to 150 miles N.E. from the capital, besides places on or near the railway to Southern Cross and a few farther south. In addition he sends from his herbarium many plants found by Mr. G. W. Brown at Kauring, near Greenhills*. Although much smaller than the above, Mr. Maryon's collection, from Mulline with a few from Mount Magnet, in the Murchison Goldfield, has several examples of new or rare species, one of which, the remarkable *Bellida major*, will be found described and figured in the 'Journal of Botany,' lv. (1917) p. 100, tab. 547. The sequence of natural orders, it may be added, followed in this memoir, is that of the 'Flora Australiensis,' a linear sequence in the present state of our knowledge being thought preferable to more ambitious arrangements based upon a highly speculative phylogeny.

DILLENACEÆ.

HIBBERTIA (§ *Hemistemma*) PULLULA, sp. nov. Verisimiliter suffrutex crebro ramosus, ramis subteretibus cortice cinereo in longitudinem exuto glabro cinctis; foliis parvis sessilibus lineari-oblongis obtusis apice parum recurvis margine arcute revolutis secus marginem falsum tuberculatis ceterum glabris; floribus ad apicem ramulorum solitariis pedunculatis pedunculis glabris folia subæquantibus; sepalis ovatis vel oblongo-ovatis obtusis nisi obtuse acutis concavis dorso carinulatis glabris; petalis sepala excedentibus obo cordatis; staminibus 10 antheris obtusis cum staminodiis lineari-spathulatis vix totidem conversatis; carpellis 2 lanatis, 2-ovulatis.

Ongerup district; *Stoward*, 842, 843.

* The Stoward numbers, it should be noted, refer only to Museum material. Identical species will often be found at Kew under another number and different species under the same number.

Folia 2·5–7 mm. long., circa 1 mm. lat., griseo-viridia; costa centralis pag. inf. maxime prominens. Pedunculi circa 4 mm. long. Sepala 3·5–4·5 mm. long. Petala 6 × 5 mm. Stamina 2 mm., staminodia 1·5 mm. long. Carpella subglobosa circa 1 mm. diam. Styli subrecti, 1·5 mm. long.

Differs from *H. verrucosa*, Benth. chiefly in the smaller much less warted leaves and the small flowers with glabrous calyx.

HIBBERTIA (§ *Pleurandra*) *STOWARDII*, sp. nov. Suffrutex; ramis erectis ramulos sat approximatos abbreviatis crebro foliosos minutissime puberulos sustinentibus; foliis erectis subsessilibus lineari-oblongis apice pungentimucronatis margine arcute revolutis opacis minute scabriusculis; floribus ad apicem ramulorum subsessilibus bracteis perpaucis ovatis vel ovato-oblongis obtusis acutisve interdum breviter pungentibus stipatis; sepalis ovatis obtusis concavis nisi apice breviter pungenti glabris; petalis sepala superantibus bilobis; staminibus 10 antheris retusis; carpellis 2 lunatis; ovulis pro loculo 2.

Kununoppin; *Stoward*, 727.

Folia 5–12 mm. long., summum 1·5 mm. lat. vel paullulum ultra; costa media pag. inf. optime aspectabilis, pag. sup. haud visa. Bracteæ 2·5–3 mm. long. Sepala circa 5 mm. long. Petala undulata, 8·5 mm. long.; horum lobi rotundati, 2 mm. long. Stamina 2·25 mm. long. Carpella subglobosa, circa 1 mm. diam. Styli incurvo-erecti, 1·25 mm. long.

H. mucronata, Benth. has hairy young branches, somewhat narrower shining leaves with longer pungent points, narrower subulate bracts, hairy sepals, the outer ones with a long pungent point, and about 5 stamens.

H. rostellata, Turcz. Nungarin; *Stoward*, 410. Bruce Rock; *Id.*, 471.

CANDOLLEA RUPICOLA, sp. nov. Verisimiliter suffrutex crebro ramosus; ramis ascendentibus puberulis deinde glabris ramulos perbreves copiose emit-tentibus; foliis in ramulis confertis sessilibus linearibus apice mucronulatis margine arcute revolutis glabris; floribus sessilibus ramulos terminantibus; sepalis ovatis concavis 3 longe 2 breviter acuminatis glabris; petalis sepala subæquantibus late obovatis bifidis; staminibus 11 quorum 3 in fasciculos triandros digestis; carpellis 3 glabris in stylum longiorē excurrentibus.

Bruce Rock; *Stoward*, 430.

Folia 5–9 mm. long., 5–7·5 mm. lat. Sepala 7 mm. long.; horum acumen longum 3–3·5 × 5 mm., breve summum 1 mm. long. Petala 6·5 mm. long., margine minute undulato-crenulata. Stamina 3 mm. long.; antheræ oblongæ, retusæ, 2 mm. long. Carpella compressa, ambitu ovoideo-oblonga, 1·25 mm. long. Styli divaricati, 2 mm. long.

Differs from *C. tereifolia*, Turcz. chiefly in the markedly revolute leaves, the absence of orbicular bracts at the base of the flowers, and the acuminate sepals.

PORTULACACEÆ.

CALANDRINIA MARYONII, sp. nov. Planta glabra; *rhizomate* brevi lignoso caules multos graciles repentis emittente; *foliis* paucis laud fasciculatis linearibus vel lineari-oblongis nisi oblongis obtusis crassiusculis; *racemis* laxe plurifloris; *bracteis* sat perspicuis ovatis membranaceis; *floribus* pedicellis brevibus ascendentibus post floritionem vero elongatis pendentibusque insidentibus; *sepalis* late ovatis obtusis obscure nervosis; *petalis* 6 oblanceolato-oblongis obtusis sepala paullulum excedentibus; *staminibus* 5-6 filamentis compressis ima basi dilatatis; *ovario* oblongo-ovoideo stylis 4 sat elongatis coronato; *capsula* sepala breviter superante subcylindrica (superne leviter attenuata) valvis 4 brevibus dehiscente.

Mulline; *Maryon*.

Caules longit. 20 cm. attingentes sed sæpissime breviores, simplices vel ramosi ramis patentibus. Folia 1 cm. long., inferiora viridia (in sicco fusciscentia), superiora latiora, in sicco brunneo-rubra. Bracteæ circa 2 mm. long., deorsum caulem basi amplectentes. Pedicelli plerique 2-3 mm. long., sub fructu 5-7 mm. Sepala sub flore 4 mm., sub fructu 5 mm. long. Petala 5.5 mm. long., paullo post floritionem calyptram capsulam obtegentem efformantia. Capsula 5-6 mm. long.; hujus valvæ late oblongæ, obtusissimæ, .75 mm. long. Semina circa 25, .5 mm. diam.

Apparently nearest *C. calyptrata*, Hook. f., which is a plant of slenderer habit with much smaller bracts, and small flowers with three short stigmas and a three-valved capsule, the valves longer and differently shaped.

STERCULIACEÆ.

COMMERSONIA STOWARDII, sp. nov. Verisimiliter frutex nisi suffrutex scabro-tomentosus; *ramulis* ultimis brevibus crebro foliosis; *foliis* parvis petiolatis late ovatis apice rotundatis basi leviter cordatis interdum obliquis margine integris vel undulatis pag. sup. cito scabridis; *cymis* subsessilibus paucifloris quam folia brevioribus flores parvos foventibus; *sepalis* oblongo-ovatis obtusis quam petala panduriformia apice late rotundata longioribus; *staminodiis* lateralibus anguste filiformibus ultra medium staminodii intermedi oblongo-spathulati attingentibus filamentis staminum basi adhærentibus; *ovariorum* loculis ovulis 3 præditis; *stylis* inter se liberis.

Nungarin; *Stoward*, 287.

Folia $\pm 10 \times 8$ mm.; petioli 3-6 mm. long. Cymæ circa 7 mm. diam. Flores verisimiliter albi, 5 mm. diam. Sepala 2.5 mm. long. Petala 2 mm. long. Filamenta crassiuscula, .75 mm. long.; antheræ oblongæ, .8 mm. long. Staminodium intermedium 1.5 mm. long.; lateralia circa 1 mm. Ovarium globosum, 5-sulcatum, molliter tomentosum, 1 mm. diam. Styli fere .5 mm. long.

Nearest *C. pulchella*, Turcz., which has narrower toothed or lobed leaves, larger flowers with rotundate sepals, petals in several respects different and with larger central staminodes, the lateral ones shorter and broader.

Thomasia macrocalyx, Steud. Kauring; *G. W. Brown* (Hb. Stoward, 513).

T. sarotes, Turcz. Belka; *Stoward*, 350.

Lysiosepalum Barryanum, F. Muell. Wagin-Katanning district; *Stoward*, 7.

L. rugosum, Benth. Kununoppin; *Stoward*, 400.

RUTACEÆ.

BORONIA (*Variabiles*) FOLIOSA, sp. nov. Suffrutex vel frutex ramosus; ramis crebro foliosis subtretragonis minute furfuraceis dein glabris; foliis subsessilibus oblongis obtusis basin versus aliquanto angustatis glabris; floribus axillaribus solitariis breviter pedicellatis pedicellis basi bracteis exiguis perpaucis stipatis uti sepala minute pubescentibus; sepalis oblongo-triangularibus obtusis; petalis sepala excedentibus anguste ovatis obtusis extus minute tomentellis; filamentis aliquanto compressis alternis longioribus inferne ciliatis sursum papillosis antheris inter se similibus apiculo parvo recurvo onustis; carpellis liberis pubescentibus; seminibus albis glabris.

Bruce Rock; *Stoward*, 334. Totadjen; *Id.*, 356. Nungarin; *Id.*, 412.

Folia $\pm$ 10 mm. long., 2–4 mm. lat., in sicco flaveolo-viridia. Pedicelli 1·5–2 mm. long.; horum bracteæ summum 1 mm. long. Sepala 2 mm. long. Petala 5 mm. long., verisimiliter dilute rosea. Filamenta 1·5–2 mm. long.; antheræ ovoideæ, 75 μ m. long. Semina subreniformia, 2·5 mm. long.

This seems nearest *B. crassipes*, Benth., a species with, *inter alia*, longer and narrower leaves, much larger flowers with different sepals, and petals glabrous on the back.

Phebalium microphyllum, Turcz. Bruce Rock; *Stoward*, 473.

P. filifolium, Turcz. Mt. Marshall; *Stoward*, 325.

PHEBALIUM CAPITATUM, sp. nov. Ramulis tenuibus subsparsim foliosis glandulis prominentibus sphæroideis subpellucidis copiose instructis primo minutissime fusco-furfuraceis dein glabris; foliis parvis sessilibus crassis linearibus obtusis ob margines revolutos subtus canaliculatis glandulis paucis prominenter tuberculatis glabris; floribus sessilibus ad apicem ramulorum capitatis capitibus plerumque 3–4-floris bracteis circa 4 ovatis obtusis fusco-furfuraceis cinctis; sepalis parvulis ovatis obtusissimis puberulis; petalis oblongo-ovatis acutis æstivatione valvatis glabris; staminibus exsertis

filamentis filiformibus glabris antheris inappendiculatis; *carpellis* ovoideis obtusis furfuraceis; *stylo* elongato glabro.

Bruce Rock; *Stoward*, 437.

Folia pleraque $5 \times \cdot 6$ mm., in sicco viridia. Bracteæ circa 1 mm. long. Sepala $\cdot 5$ mm. long. Petala probabiliter alba, fere 3 mm. long. Filamenta 4 mm., antheræ $\cdot 5$ mm. long. Carpella 1 mm., stylus 5 mm. long.

The prominently glandular branches together with the tubercular leaves and small capitate inflorescences are the chief marks of this species.

Phebalium deserti, comb. nov. (*Eriostemon deserti*, E. Pritz. in Engl. Bot. Jahrb. xxxv. (1904) p. 320). Bruce Rock; *Stoward*, 314.

ERIOSTEMON STOWARDII, sp. nov. Ex conjectura frutex, multiramosus, subtilissime griseo-pubescentis; *ramulis* teretibus sat gracilibus bene foliosis; *foliis* parvulis teretibus clavatis tuberculis paucis glandulosis leviter eminentibus præditis; *floribus* 5-meris subsessilibus solitariis terminalibus raro axillaribus; *sepalis* parvis deltoideis apice glandula fusca onustis; *petalis* sepala longe superantibus oblongo-ovatis obtusis dorso obtuse carinatis pubescentibusque; *filamentis* compressis basi apiceque ciliatis alibi glabris antheris in apiculum latum desinentibus; *carpellis* rostratis pilosis; *stylo* juxta basin carpellorum inserto filiformi leviter puberulo.

Trayning; *Stoward*, 291. Nungarin, *Id.*, 794.

Folia $1\cdot 5$ – $2\cdot 5$ mm. long., 1 mm. diam., in sicco griseo-viridia. Pedicelli 2 mm. long. Sepala $1\cdot 25$ mm. long. Petala verisimiliter alba, $4\cdot 5 \times$ ægre 2 mm. Filamenta 3 mm. long., antheræ ovatæ, loculi $\cdot 6$ mm. apiculus $\cdot 5$ mm. long. Carpella $1\cdot 5$ mm., stylus $2\cdot 25$ mm. long.

Nearest to *E. tomentellus*, Diels, which according to figure and description has tomentose indumentum, larger leaves, flowers on longer peduncles, with a larger calyx, broader rose-coloured petals, filaments ciliated (apparently throughout), and tomentose carpels.

ERIOSTEMON THRYPTOMENOIDES, sp. nov. Probabiliter frutex, crebro ramosus, glaber; *ramulis* tenuibus bene foliosis; *foliis* parvulis clavatis teretibus breviter tuberculoso-glandulosis; *floribus* terminalibus (anne semper?) subsessilibus; *sepalis* ovatis in glandulam magnam viridem se contrahentibus; *petalis* ovato-oblongis obtusis margine ciliatis dorso puberulis carinatisque; *filamentis* late complanatis omnimodo ciliatis antheris breviter apiculatis; *carpellis* liberis obtusis apice barbatis; *stylo* crasso superne attenuato dense pubescente sub apice glabro.

Nungarin; *Stoward*, 784.

Folia $\pm 1\cdot 5$ mm. long., $\cdot 75$ mm. diam., in sicco viridia. Pedicelli crassi, 1·5 mm. long. Sepala 2 mm. long. Petala verisimiliter dilute rosea, $5 \times 1\cdot 5$ –2 mm. Filamenta 3 mm., antheræ $\cdot 45$ mm. long. Carpella $\cdot 75$ mm. long. Stylus 3 mm. long.

Distinguished from *E. Stowardii* by the absence of hairiness, the smaller narrower less markedly tubercled leaves, the larger sepals, broad filaments copiously hairy throughout tipped by smaller anthers with but a tiny apiculus, the smaller obtuse carpels and stout pubescent style.

The two plants here described, as well as *E. tomentellus*, Diels, are doubtless allied to *E. diffornis*, A. Cunn.

LEGUMINOSÆ.

OXYLOBIUM EMARGINATUM, sp. nov. Verisimiliter fruticulosum; *ramis* teretibus subtiliter cinereo-pubescentibus dein glabris; *foliis* verticillatis (pro verticillo 3) nonnunquam oppositis parvis brevipetiolatis obcordato-oblongis basi obtusis margine induratis obscureque crenulatis coriaceis supra cito glabris subtus appresse griseo-pubescentibus; *stipulis* setaceis petiolos excedentibus; *floribus* in glomerulos plurifloros densos terminales sessiles dispositis; *calycis* fulvo-villosi segmentis oblongo-ovatis obtusis 2 posticis paullulum altius connatis; *vexillo* suborbiculari emarginato alis apice rotundatis carinam leviter excedentibus; *ovario* breviter stipitato villosa in stylum longiorem incurvum basi barbatum desinente; *ovulis* 4.

Kojonup; *Stoward*, 105.

Folia ± 1 cm. long., prope apicem 6–8 mm. lat., in sicco griseolo-viridia; costa media supra plana subtus eminens; costæ laterales perpaucae, obscuræ; reticulum minutum, mediocriter visibile; petioli 1–2 mm. long. Stipulae 3 mm. long. Glomeruli 1.5–2 cm. diam. Calyx 7 mm. long, hujus segmenta postica 2.5 mm. cetera 3 mm. long. Vexillum (ungue 3 mm. long. exempto) 7×8 mm.; alae 9 mm., carina 8 mm. long. Ovarium 2 mm. long.; hujus stipes .5 mm. Stylus circa 5 mm. long.

This is not placeable in any of the series of Benth. It is evidently near *O. tetragonophyllum*, E. Pritz., a species the describer assigns doubtfully to series *Podolobieae*, a step it is difficult to follow.

Var. MAJOR. Folia plerumque opposita raro verticillata, ± 2 cm. long., petiolis usque 3 mm. long. Glomeruli ob ramulorum suppressionem nonnunquam axillares. Kojonup; *Stoward*, 806.

Dr. Stoward suggests that this may be merely a more luxuriant specimen of the species, but it looks sufficiently different to warrant a varietal name.

Mirbelia daviesioides, Benth. Bruce Rock; *Stoward*, 308. Cowcowing; *Id.*, 402.

BURTONIA ASPERULA, sp. nov. Probabiliter suffrutex; *ramis* pluribus tenuibus arrectis frequenter foliosis hispidulo-pubescentibus; *foliis* brevipetiolatis pinnatis foliolis plerumque 5 vel 7 anguste linearibus obtusis ob margines revolutos subteretibus uti rhachis hispidulis; *floribus* purpureis pro rata

parvis in racemos terminales pedunculatos breves paucifloros digestis ; *pedicellis* sepalis subæquilongis glabris bracteas subulatas facile excedentibus ; *bracteolis* bracteis similibus sub calyce insertis ; *sepalis* lanceolato-oblongis obtusis margine induratis necnon lanoso-ciliatis ceteroquin glabris vel fere glabris ; *petalis* calycem paullo excedentibus ; *ovario* sessili ; *legumine* calyci persistenti æquilongo late ovoideo subperspicue reticulato-nervoso microscopice puberulo stylo persistente oblique inserto basi incrassato glabro coronato.

Wongan Hills ; *Stoward*, 194.

Foliorum rhachis circa 1·5 mm. long. ; petiolus 1 mm. vel paullulum ultra ; foliola 3–4 mm. long. Pedunculi superne glabri, plerique 2·5–3·5 cm. long. Bracteæ bracteolæque 1–1·5 mm. long. Calyx in sicco aliquanto fuscus, 5 mm. long. Petala 7 mm. long. Anthæræ oblongæ, 1 mm. long. Legumen 4·5 mm. long. et totidem lat.

Though not in the best condition, the material suffices to indicate this as a distinct species. The chief points are the clothing and the few small leaflets, together with the small flowers and smooth calyx.

Daviesia nematophylla, F. Muell. Totadjen ; *Stoward*, 362.

DAVIESIA PHYLLODINEA, sp. nov. *Ramis* erectis rigidis sparsim foliosis angulatis leviter scabriusculis ; *foliis* sessilibus lineari-oblongis linearibusve apice mucronatis coriaceis utrobique leviter scabriusculis ; *floribus* breviter pedicellatis in fasciculos axillares paucifloros ordinatis glabris ; *pedicellis* bracteas parvas oblongas scarosas foventibus ; *calycis* dentibus triangularibus acutis posticis paullulum latioribus ; *vexillo* reniformi emarginato alis late oblongis apice rotundatis carinam obtusam paullulum excedentibus ; *filamentis* compressis ; *ovario* breviter stipitato fusiformi glabro ; *stylo* recurvo glabro.

Belka ; *Stoward*, 352.

Folia sæpissime 2–4 cm. long., 2–4 mm. lat. ; costa media subtus eminens ; reticulum rugulatum. Pedicelli 2–3 mm. long., bracteæ 1–fere 2 mm. long. Calyx 3 mm. long., hujus dentes 1 mm. Vexillum 6 × 7 mm. ; alæ 6 mm., carina 4·5 mm. long. Ovarium 3 mm., stipes 1 mm., stylus 2 mm. long.

Var. PARVIFOLIA. A typo discrepans præsertim de habitu tenuiori necnon confertiori foliisque parvis (1·5–2 cm. long., 1·5–2 mm. lat.). Bruce Rock ; *Stoward*, 469.

Near *D. nudiflora*, Meissn., which has larger and broader leaves ending in long pungent points, flowers on longer pedicels thickened in their upper portion, calyx with the two hinder teeth united &c.

DAVIESIA PARVIFOLIA, sp. nov. Planta inermis, glabra ; *ramis* ramulisque subteretibus elevato-striatis bene foliosis ; *foliis* parvulis sessilibus oblongo-lanceolatis apice longe pungentibus margine revolutis coriaceis ; *floribus*

axillaribus sessilibus pedicellatis; *bracteis* minutis ovatis scariosis; *calycis* turbinati dentibus inter se subæqualibus deltoideis obtusis; *vexillo* reniformi alte emarginato alis oblongo-obovatis obtusissimis vexillum carinamque adæquantibus; *filamentis* aliquantulum compressis; *ovario* oblongo-falcato stipitato glabro quam stylus longiore; *legumine* a basi lata falcato acuminato.

Kauring; *G. W. Brown* (Hb. Stoward, 560).

Ramuli patentes, sæpius 3–5 cm. long. Folia ramorum usque 1 cm. long., ramulorum modo 3·5–4·5 mm., in sicco viridia. Pedicelli sub flore 1·5 mm., sub fructu 3–5 mm. long. Bracteæ 1 mm. long. Calyx 3 mm. long.; hujus dentes 5 mm. Vexillum 4·5 × 5 mm. Ovarii stipes 1 mm., ovarium 3 mm., stylus 1 mm. long. Legumen 12 × 8 mm.; hujus stipes 2 mm. long.

As regards foliage much like the eastern *D. ulicina*, Sm., var. *ruscifolia*, Benth., but the branches are not spinous, the leaves are smaller, and the pod is broader.

D. JUNCEA, Sm., var. *SPINESCENS*, var. nov. *Rami* hac atque illac spinis firmis plerumque patenti-recurvis 3–5 mm. long. onusti: characteres ceteri typi. Wickepin; *Stoward*, 108. Wundowie; *Id.*, 261. Kauring; *G. W. Brown* (Hb. Stoward, 572).

GASTROLOBIMUM STOWARDII, sp. nov. Fruticosum, ramosum; *ramis* rigidis subteretibus griseo-tomentosis postea glabris flavescentibusque; *foliis* oppositis subsessilibus oblongo-obovatis apice obtusissimis vel retusis ipso mucronatis basi obtusis margine induratis aliquantulum revolutis obscurissime crenulatis coriaceis supra cito glabris nitidisque subtus griseo-pubescentibus; *stipulis* subulatis acuminatis tomentosis; *floribus* in axillis paucis fasciculatis breviter pedicellatis; *calycis* tomentosi segmentis triangularibus acutis posticis quam cetera paullulum latioribus altiusque connatis; *vexillo* suborbiculari alis obtusissimis carinæ æquilongis; *ovario* ovoideo villosa stipite æquilongo fere glabro suffulto; *stylo* incurvo inferne pubescente superne glabro.

Dumblayung; *Stoward*, 106.

Folia solemniter 1–1·5 cm. long., prope apicem 5–8 mm. lat., in sicco griseo-viridia; costa centralis pag. sup. impressa, pag. inf. eminens; costæ laterales perpaucae, difficile aspectabiles; reticulum arcissimum utrinque prominens. Stipulæ 3 mm. long. Pedicelli 2–3 mm. long. Calyx totus 5·5 mm. long.; segmenta postica 1·5 mm., cetera 2·5 mm. long. Vexillum 7 × 6 mm.; alæ necnon carina 7 mm. long. Ovarium (stipite excluso) 2 mm. long.; stylus 4 mm. long.

Apparently nearest *G. plicatum*, Turcz., but, *inter alia*, much smaller in the leaf pubescent below (not glabrous) and smaller tomentose (not villous) calyx.

GASTROLOBIMUM SPINOSUM, Benth., *var. MICROPHYLLUM*, *var. nov.* *Folia* parva, lanceolato-hastata lobis lateralibus rotundatis inermibusque vel spinula debili præditis, 14–17 mm. long., juxta basin 5–7 mm. lat. Kauring; *G. W. Brown* (Hb. Stoward, 554).—*Var. INERME*, *var. nov.* *Folia* cordato-lanceolata, omnino integra, 20–25 mm. long., 10–12 mm. lat. Woodanilling; *Stoward*, 721.—*Var. TRILOBUM*, *var. nov.* *Folia* parva late cordato-ovata 3-(rarissime 5-) loba lobis in spinulam rigidiusculam exeuntibus $\pm 14 \times 13$ mm. Kauring; *G. W. Brown* (Hb. Stoward, 551, 632).

GASTROLOBIMUM SAGITTULATUM, *sp. nov.* Planta ramosa, *ramulis* subtetragonis puberulis cito glabrescentibus; *foliis* oppositis brevipetiolatis lineari-lanceolatis apice pungentibus basi rotundato-sagittulatis aliquanto decurrentibus coriaceis glabris; *stipulis* setaceis firmis petiolis æquilongis; *racemis* folia excedentibus paucifloris floribus approximatis distantibusve; *bracteis* parvis ovatis longe acuminatis; *calycis* segmentis ovato-oblongis acuminatis margine lanuloso-ciliatis 2 posticis altius connatis; *vexillo* reniformi-orbiculari alis obtusissimis carinæ æquilongis; *ovario* anguste ovoideo villosa stipiti sat crasso sibi ipsi æquilongo insidente; *stilo* incurvo lateraliter compresso inferne barbato ceterum glabro.

Kauring; *G. W. Brown* (Hb. Stoward, 562).

Folia pleraque 2·5–4·5 cm. long., medio 3–3·5 mm. basi 6 mm. lat., in sicco pallide viridia; costa centralis pag. inf. maxime eminens; costæ laterales 0 vel obscurissimæ; reticulum arcuissimum, pag. utraque optime aspectabile; petioli 2 mm. long. Stipulae 2 mm. long. Racemi graciles, 5–8 cm. long. Bractea fugax, absque acumine 1·5 mm. long., acumen ipsum 2 mm. long. Pedicelli ± 3 mm. long. Calyx 11 mm. long.; hujus lobi postici 3·5 mm., antici 6 mm. long. Vexillum 13×15 mm., hujus unguis 3 mm. long.; alae 11 mm. long. Ovarium (stipite exempto) 3 mm. long. Stylus 7 mm. long.

Very close to *G. calycinum*, Benth., from which it differs chiefly in the narrow leaves markedly expanded at the base, the small inconspicuous bracts, somewhat smaller flowers, smaller calyx with shorter and relatively broader segments, and style bearded in its lower half.

GASTROLOBIMUM FLORIBUNDUM, *sp. nov.* *Ramis* rigidis subteretibus glabris in sicco flavidis; *foliis* oppositis brevipetiolatis lineari-lanceolatis apice obtusis ipso pungentibus basi obtusis saltem in sicco concavis coriaceis glabris; *stipulis* setaceo-subulatis petiolos superantibus; *racemis* axillaribus vel terminalibus folia adæquantibus tenuibus plurifloris puberulis; *calycis* piloso-pubescentis segmentis posticis altius connatis rotundatis quam cetera ovata acutiuscula latioribus; *vexillo* suborbiculari; *ovario* ovoideo dense villosa breviter stipitato; *stilo* incurvo glabro.

Nungarin; *Stoward*, 730.

Folia 4-6 cm. long., 4-5 cm. lat., in sicco flavo-viridia; costa centralis pag. inf. valde prominens; costæ laterales plures in reticulum arcissimum utrobique optime visibile transeuntes; petioli 3 mm. long. Stipulae fuscae, 4 mm. long. Racemi 5-7 cm. long. Pedicelli 2 mm. long., piloso-pubescentes. Calyx 4-5 mm. long.; lobi postici 1 mm., reliqui 1.5 mm. long. Vexillum 8.5 x 8 mm., carina 7 mm. long. Ovarium 3 mm., hujus stipes 1.5 mm. long. Stylus 1.5 mm. long.

Flowers in several respects like those of *G. microcarpum*, Meissn., but foliage altogether different. The flowers are in an advanced state and their corollas not well seen in consequence.

Gastrolobium crassifolium, Benth. Wagin-Katanning district; *Stoward*, 9.

Phyllota Georgii, Hemsl. Trayning; *Stoward*, 330. Totadjen, *Id.*, 357.

Swainsona colutooides, F. Muell. Trayning; *Stoward*, 109 (det. A. J. Ewart).

CASSIA (§ *Psilorhegma*) STOWARDII, sp. nov. *Ramulis* tetragonis minute puberulis dein glabris; *foliis* petiolatis foliolis solemniter 10 subsessilibus lineari-oblongis obtusis coriaceis minute puberulis rhachi sat tenera glandulis interjugalibus exiguis fuscis obsita; *stipulis* subulatis acutis; *racemis* pedunculatis umbelliformibus paucifloris pedicellis calyce longioribus uti pedunculus sparsim pubescentibus; *sepalis* inter sese subsimilibus ovatis obtusis dorso sparsim pubescentibus; *petalis* similibus oblongo-obovatis margine undulatis; *staminibus* 10 omnibus antheriferis antheris late oblongis obtusis 2 anticis quam ceterae paullo majoribus; *ovario* stipitato falciformi glabro.

Mt. Marshall; *Stoward*, 386.

Foliorum rhachis 17-28 mm. long., ægre .5 mm. crass.; foliola in sicco viridia, 10-15 x 1.5-2 mm.; petiolus usque ad 5 mm. long., petioluli 1 mm. nisi minus. Stipulae 1.5 mm. long. Pedunculi et pedicelli circa 5 mm. long. Sepala 2-2.5 mm., petala 7 mm. long. Filamenta .5-1.5 mm. long.; antherae majores 3 mm. minores 2-2.75 mm. long. Ovarium 5 mm. (stipite 1 mm. excluso), stylus circa 1 mm. long.

This might perhaps be included within the limits of *C. Sturtii*, R. Br., as understood by Bentham; but on comparing it with Sturt's type in the British Museum (which seems to have escaped Bentham's notice, as he mentions Sturt only under the hypothetical var.? *coccinea*), the idea of conspecificity must be abandoned, so different are the two plants. The var.? *coriacea* (to which may be referred the plant entered as *C. Sturtii* in Journ. Linn. Soc. xxxiv. p. 188) also seems deserving of specific rank.

ACACIA (*Pungentes*) PERICULOSA, sp. nov. Fruticosa, glabra, inermis; *ramis* robustis patentissimis phyllodiorum fulcimentis optime exstantibus signatis; *phyllodiis* patentibus subteretibus linearibus apice acute pungentibus ima basi aliquantulum dilatatis rigidissimis subtilissime plurinerviis;

glomerulis sat longe pedunculatis oblongo-globosis paucifloris in axillis solitariis vel 2-3-nis; *floribus* 5-meris; *sepalis* inter se liberis anguste lineari-spathulatis quam petala libera oblongo-obovata obtusa brevioribus; *legumine* valde crudo anguste lineari incurvo vel torto appresse puberulo.

Nungarin; *Stoward*, 753.

Rami 2-3 mm. crass., cortice tenero cinereo laminatim decidente obducti. Phyllodia 1.5-2.5 cm. long., 1 mm. vel paullulum magis lat., in sicco flavo-viridia. Pedunculi 1-1.5 cm. long., filiformes. Glomeruli axis 2-3 x 1-1.25 mm. Sepala 1 mm., petala 1.5 mm. long. Legumen maxime crudum 15 x .75 mm., fuscum.

At first sight might be mistaken for *A. colletioides*, A. Cunn., but the stouter phyllodes of *A. periculosa* are more finely nerved and the flowers are in more lengthily pedunculate not strictly globose heads. There are differences also in the flowers and probably also in the fruit.

ACACIA (*Calamiformes*) ASSIMILIS, sp. nov. Citissime glabra novellis appresse pubescentibus; *ramulis* tenuibus cinereis politis; *phyllodiis* anguste linearibus subteretibus apice debiliter uncinato-pungentibus basi stipiti manifesto transverse rugato flavo insidentibus plurinervosis; *stipulis* subulatis fugaceis; *floribus* 5-meris; *sepalis* liberis lineari-spathulatis quam petala libera spathulato-oblonga obtusa paullo brevioribus; *legumine* —.

Bruce Rock; *Stoward*, 116. Cowcowing; *Id.*, 405.

Phyllodia 5-8 cm. long., summa eadem breviora, 1 mm. lat.; horum stipes attenuatus, 2.5 mm. long. Stipulæ 1.5 mm. long. Pedunculi 4-6 mm., sepalia 1 mm., petala 1.5 mm. long.

Very like and might easily be confused with *A. uncinella*, Benth. The numerous fine nerves to the phyllodes and their longer, slenderer, yellow petiole-like stalks afford an easy means of distinction. *A. Beauverdiana*, Ewart, is also very similar, but its phyllodes, which have the same yellow stalks, are flat, not terete.

A. Beauverdiana, Ewart. Cowcowing; *Stoward*, 311, 453. Bruce Rock; *Id.*, 312, 449.

A. erinacea, Benth. Kauring; *G. W. Brown* (Hb. *Stoward*, 573).

ACACIA (*Uninerves*) INTRICATA, sp. nov. Verisimiliter fruticulus intricate ramosus glaber; *ramis* rigidis apice induratis sæpeque breviter spinosis angulatis prominenter paucistriatis; *phyllodiis* parvulis lateraliter complanatis a basi sessili lata ovatis vel ovato-oblongis apice acute pungentibus margine superiori incrassatis marginibus ambobus anguste cartilagineis uninervibus nervo utrobique prominente coriaceis; *glomerulis* parvis solitariis globosis paucifloris pedunculis phyllodia circiter adæquantibus fultis; *calyce* obsoleto; *petalis* 4 liberis ovato-oblongis obtusis prominenter 1-nervibus.

Mt. Marshall; *Stoward*, 756.

Phyllodia 2-3 mm. long. incluso puncto pungenti fere 1 mm. long., 1-1.5 mm. lat., in sicco viridia. Pedunculi circa 2 mm. long. Glomeruli pansi 1.5 mm. diam. Petala 1.25 mm. long. Legumen haud visum.

The curious little phyllodes easily serve to distinguish this species, which seems to be near *A. erinacea*, Benth. and *A. Huegelii*, Benth.

A. idiomorpha, A. Cunn. Wongan Hills; *Stoward*, 198.

ACACIA (*Uninerves*) *SAXATILIS*, sp. nov. *Ramulis* angulatis leviter pruinosis cito glabris; *phyllodiis* oblongis apice rectis obtusissimisque ipso mucronatis basi obtusis stipitibus brevi crasso insertis obscure 1-nerviis raro 2-nerviis crassiusculo-coriaceis leviter pruinosis; *glomerulis* globosis pedicellis solitariis quam folia brevioribus suffultis; *sepalis* liberis anguste spathulatis ciliolatis; *petalis* liberis sepala plane superantibus oblongo-spathulatis acutis.

Bruce Rock; *Stoward*, 708.

Phyllodia margine superiori obscure glandulosa, pleraque 1.5-2 cm. long., 3-4 mm. lat.; horum stipes transversim rugatus, 1 mm. long. Pedunculi 3-8 mm. long. Glomeruli 4 mm. diam. Sepala .75 mm., petala 2 mm. long. Legumen ignotum.

To be inserted next *A. ligustrina*, Meissn., from which it can be told by the smaller and narrower fleshy and pruinose phyllodes not oblique at the apex. There are also differences in the shape and size of the petals as well as the ovary, thus indicating a difference in the fruit.

A. sericocarpa, W. V. Fitzg. Nungarin; *Stoward*, 281, 376.

A. Merrallii, F. Muell. Nungarin; *Stoward*, 480.

ACACIA (*Uninerves*) *STOWARDII*, sp. nov. Planta glabra; *ramis* angulatis paucistriatis; *phyllodiis* elongatis anguste-linearibus obtusis tetragonis ad angulos induratis facie utraque nervo tenui percursis mucronatis apice rectis vel leviter uncinatis; *floribus* 4-meris in racemos pedunculatos oligocephalos quam phyllodia multo breviores digestis; *glomerulis* globosis plurifloris pedunculis propriis sese adæquantibus insidentibus; *sepalis* alte connatis quam petala libera plane brevioribus; *petalis* spathulato-oblongis obtusis; *filamentis* basi connatis; *legumine* elongato lineari-toruloso leviter puberulo.

East of Katanning; *Stoward*, 177.

Phyllodia longit. nonnunquam 16 cm. attingentia, sæpius vero $\pm$ 12 cm., 1 mm. lat., in sicco griseo-viridia. Racemi plerique 1-2.5 cm. long.; pedunculus 2-10 mm. long.; pedunculi proprii circa 2 mm. long. Glomeruli 4 mm. diam. Calyx 1 mm., petala 1.6 mm. long. Legumen stipite 3 mm. long. insidens, 12 cm. long.

Near *A. dentifera*, Benth., but easily known by the narrower tetragonous phyllodes, the always racemose inflorescences, gamophyllous calyx, &c.

A. DENTIFERA, Benth., *var. INTERMEDIA*, *var. nov.* Phyllodia 3.5–5.5 cm. $\times$ 3–4 mm. Nungarin; *Stoward*, 302.—*Var. PARVIFOLIA*, *var. nov.* Phyllodia 3–5 cm. $\times$ 1–1.5 mm. Bruce Rock; *Stoward*, 333. Mt. Marshall; *Id.*, 451. No other divergence from type noticed.

A. aciphylla, Benth. Nungarin; *Stoward*, 388. Bruce Rock; *Id.*, 479.

A. stereophylla, Meissn. Kununoppin; *Stoward*, 447.

ACACIA (*Bipinnate*) *GRISEA*, *sp. nov.* *Ramulis* subteretibus striatis griseo-pubescentibus; *foliis* brevipetiolatis 2-jugis foliolorum paribus 4–8 foliolis parvis sessilibus ovato-oblongis utrinque obtusissimis subtus uninerviis firme membranaceis uti rhachis griseo-pubescentibus; *stipulis* minutis setaceis puberulis; *pedunculis* foliorum rhachin circiter æquantibus axillaribus solitariis glabris glomerulum globosum fulcentibus; *calyce* gamosepalo pubescente lobis abbreviatis rotundatis aliquanto incrassatis; *petalis* paullo ultra medium liberis parte libera oblongo-ovata obtuse acuta.

East of Katanning; *Stoward*, 166.

Folia in toto 1 cm. long., ultima paullo breviora; foliola 3 $\times$ 2 mm.; petiolus 1–3 mm. long.; rhachis plerumque circa 3 mm. long., apice incurvo-apiculata, haud indurata; glandulæ interjugales dum adsint minutæ. Stipulæ circa 1 mm. long. Pedunculus profecto evolutus 8–10 mm. long. Glomeruli 5 mm. diam. Calyx 1.2 mm., corolla 2 mm. long. Legumen mancum.

Judging from the figure in Engl. Bot. Jahrb. xxxv. (1904) p. 313, this is close to *A. Moirii*, E. Pritz., which is described as hirsute chiefly in its younger parts with sessile unijugate leaves, each juga having 4–5 leaflets nearly glabrous on their upper face and about 2 $\times$ 1 mm.; moreover, the rhachis of these leaves ends in a spine. There seems little difference in the flowers. The fruit of neither is known.

HALORRHAGACEÆ.

Halorrhagis Gossei, F. Muell. Mulline; *Maryon*. A fine specimen, more than 1 foot high, of this rare plant, which Schindler would merge in *H. tenuifolia*, Benth., but apparently without sufficient warrant.

MYRTACEÆ.

Chamelaucium brevifolium, Benth. Belka; *Stoward*, 351.

CALYTHRIX STOWARDII, *sp. nov.* Fruticosa, glabra; ramis sat gracilibus superne copiose foliosis inferne nudis; foliis confertis anguste linearibus

apice subpungentibus teretibus leviter crassiusculis; *floribus* in axillis superioribus solitariis subsessilibus; *bracteolis* quam calycis tubus multo brevioribus inter se liberis lanceolatis acuminatis; *calycis* tubo inferne anguste fusiformi superne cylindrico tenero solido faucibus leviter dilatatis lobis e basi parva suborbiculari in caudam filiformem tubum excedentem extenuatis; *petalis* ovatis obtusis calycis loborum basin dilatatam facile excedentibus; *disco* breviter cupulato; *staminibus* circa 40; *stylo* diutule persistente.

Wongan Hills; *Stoward*, 190.

Ramuli 1-1.5 mm. diam.; cortice cinereo rimoso filamentoso-exuviato circumdati. Folia $\pm$ 1 cm. long., .3 mm. crass., in sicco viridia. Pedicelli 1.5 mm. long. Bracteolæ 3.5 mm. long. Flores purpurei. Calycis tubus (ovario haud exempto) 7 mm. long.; ovarium summum .75 mm. lat.; loborum basis dilatata vix 1.5 mm. long. et lat.; caudæ 1 cm. long. Discus .5 mm. diam. Filamenta nunc 5 mm. long. vel etiam longiora, nunc modo 2 mm.; antheræ .3 mm. long. Stylus 4 mm. long.

Flowers much like those of *C. tenuiramea*, Turcz., but foliage altogether different.

C. brevifolia, Meissn. Wongan Hills; *Stoward*, 191.

Thryptomene tenella, Benth. Bruce Rock; *Stoward*, 322, 359, 426.

T. urceolaris, F. Muell. Nungarin; *Stoward*, 789.

T. tuberculata, E. Pritz. (ex descript.). Nungarin; *Stoward*, 301.

Micromyrtus Drummondii, Benth. Bruce Rock; *Stoward*, 321, 423, 444.

M. racemosa, Benth. Bruce Rock; *Stoward*, 445.

BAECKEA (§ *Rinzia*) CARNOSA, sp. nov. Verisimiliter suffrutex glaber copiose ramosus; ramis tenuibus nudis; ramulis gracillimis omnimodo foliosis; foliis minutis ramulo arcte applicatis ovatis obtusis dorso rotundatis carnosulis nitidis; floribus paucis axillaribus breviter pedicellatis pedicellis solitariis; calycis tubo campanulato quam lobi deltoidei obtusi longiore; petalis calycis lobos excedentibus suborbicularibus margine leviter undulatis; staminibus 10 filamentis præcipue eorum petalis oppositorum complanatis apice integris antheris ambitu suborbicularibus connectivo in glandulam globosam sessilem exeunte; ovario subglobulari basi solummodo adnato 3-loculari loculis pluriovulatis.

Bruce Rock; *Stoward*, 315.

Folia .6-1 mm. long. Pedicelli 1.5 mm. long. Calycis tubus 1.5 mm., lobi .75 mm. long. Petala 2×2.5 mm. Filamenta antipetala 1.5 mm., antisepala 1 mm. long., antheræ .35 mm. diam. Ovarium 2 mm. diam. Stylus breviter immersus, fere 2 mm. long.

Known on sight from all species of § *Rinzia* by the minute fleshy leaves.

B. Elderiana, E. Pritz. Belka; *Stoward*, 304. Bruce Rock; *Id.*, 320.

B. crispiflora, F. Muell. Wongan Hills; *Stoward*, 193. Kauring;
G. W. Brown (Hb. *Stoward*, 571).

BAECKEA (§ *Euryomyrtus*) CLAVIFOLIA, sp. nov. Glabra; *ramulis* tenuibus crebro foliosis; *foliis* in ramulis brevissimis sæpe subverticillatis parvis sessilibus cylindrico-claviformibus obtusis glandulis prominentibus tuberculatis; *floribus* solitariis subsessilibus; *bracteis* persistentibus ovatis apice rotundatis quam calycis tubus turbinatus prominenter glandulosus brevioribus; *calycis* lobis late ovatis obtusissimis tubum circa semiquantibus sordide albis; *petalis* calycis lobos facile excedentibus suborbicularibus breviter unguiculatis; *staminibus* 10 quorum 5 petalorum medio oppositis filamentis leviter complanatis omnibus glabris antheris longitrorsum dehiscentibus glanduloso-appendiculatis; *ovario* omnino infero 3-loculo; *ovulis* quove in loculo 2 collateralibus.

Belka; *Stoward*, 305.

Folia pleraque 1.5-2 mm. long., circa .6 mm. diam., in sicco læte viridia. Bractee exteriores 1.25 mm., interiores 1.5 mm. long., firme scariosæ. Calycis tubus 2 mm., lobi 1 mm. long. Petala 2 mm. diam. Filamenta antipetala 1 mm., antisejala .5 mm. long. Stylus breviter immersus, 1 mm. long.

Near *B. crassifolia*, Lindl. and *B. Maidenii*, Ewart & White, differing from both in the leaves and bracts among other features.

BAECKEA (§ *Euryomyrtus*) STOWARDII, sp. nov. Glabra; *ramulis* erectis crebro foliosis; *foliis* in ramulis brevissimis sæpe pseudovorticillatis alibi magis distantibus parvis sessilibus oblongis facie planis dorso rotundis neenon ob glandulas prominentes tuberculatis; *floribus* solitariis subsessilibus bracteis 4 persistentibus late ovatis calyce brevioribus stipatis; *calycis* tubo turbinato levi quam lobi ambitu fere semicirculares plane longiore; *petalis* breviter unguiculatis suborbicularibus margine crispulis; *staminibus* 16-18 quorum 5 petalorum medium opponentibus filamentis leviter complanatis antheris longitrorsum dehiscentibus glandula globulari onustis; *ovario* 3-loculo; *ovulis* in loculis 2 collateralibus.

Cowcowing; *Stoward*, 316.

Folia usque ad 4 mm. sæpe vero modo circa 2 mm. long., 1 mm. lat., in sicco griseolo-viridia. Bractee firme scariosæ, ægre 2 mm. long. Calycis tubus 2.5 mm. long.; lobi roseo-albi longit. 1 mm. paullulum excedentes. Petala vix 3 mm. diam. Filamenta antipetala 1 mm., antisejala .75 mm. long. Stylus brevissime immersus, vix 1 mm. diam.

This differs from the last described chiefly in the flattened leaves and the larger flowers with more numerous stamens.

BAECKEA (§ *Oxymyrrhine*) **EXSERTA**, sp. nov. Fruticulus parvulus crebro ramosus glaber; *ramulis* permultis attenuatis bene foliosis; *foliis* parvis sessilibus decussatis semiteretibus (facie aliquanto excavatis dorso rotundatis) apice obtusis; *pedicellis* solitariis folia plane excedentibus; *bracteolis* juxta medium pedunculum ovatis scariosis fugaceis; *calycis* tubo hemisphærico in sicco ruguloso quam lobi subreniformes rosei margine albi paullulum longiore; *petalis* orbicularibus calycis lobos facile excedentibus; *staminibus* circa 20 filamentis certe etsi breviter exsertis crassiusculis aliquanto complanatis sæpe basi raro hac atque illac altius connatis antheris 4-lobis longitudinaliter dehiscentibus; *ovario* semisupero 3-loculo loculis in placenta peltata pluriovulatis; *stilo* satis alte immerso filamentis fere æqualto.

Bruce Rock; *Stoward*, 427.

Folia 1·5–2 mm. long., circa ·5 mm. lat. Pedicelli 5 mm. long., horum bracteæ rubicundæ, vix 1 mm. long. Calycis tubus fere 2 mm. long.; lobi 1·5 mm. Petala 3·5 mm. diam. Filamenta 3 mm. long.; antheræ circa ·5 mm. diam. Stylus 2·5 mm. long.

The exserted stamens serve at once to distinguish this species, a character showing a tendency towards *Kunzea*.

BAECKEA (§ *Oxymyrrhine*) **TENUIRAMEA**, sp. nov. Glabra; *ramis* subteretibus cortice cinereo obductis ramulos breves plures crebro foliosos emittentibus; *foliis* ramuli partem superiorem omnino obtegentibus exiguis obovatis apice rotundatis dorso carinatis margine ciliolatis; *floribus* in axillis superioribus solitariis pedicellis quam folia plerumque longioribus fultis juxta basin bibracteolatis bracteolis oblongis obtusis concavis pedicello plane brevioribus; *calycis* tubo turbinato quam lobi rotundati margine scariosi longiore; *petalis* suborbicularibus; *staminibus* 10 nullis medio petalo oppositis filamentis filiformibus antheris globosis sulcatis; *ovario* 3-loculari loculis ∞-ovulatis.

Nungarin; *Stoward*, 407.

Ramuli rigidi. Folia pleraque 1–2 × 1 mm. Pedicelli 2–3 mm., ovarium 2 mm., calycis lobi 1 mm. long. Petala 3 × 3 mm. Filamenta ·75 mm. long.; antheræ ·5 mm. diam.

To be inserted between *B. pachyphylla*, Benth. and *B. crispiflora*, F. Muell., differing from both, *inter alia*, in the foliage and decandrous flowers.

B. corymbulosa, Benth. Kauring; *G. W. Brown* (Hb. *Stoward*, 652).

BAECKEA (§ *Babingtonia*) **THYMOIDES**, sp. nov. Glabra; *ramis* ramulisque subteretibus his saltem superne bene foliosis; *foliis* sessilibus decussatis ovatis vel oblongo-ovatis obtusis vel obtusissimis basi obtusis nisi rotundatis levissimeve cordatis planatis membranaceis glandulis fuscis satis perspicuis inspersis; *floribus* solitariis pedicellis supra medium bibracteolatis foliis circiter æquilongis insidentibus; *calycis* tubo campanulato 5-striato quam lobi

late ovati obtusi longioribus; *petalis* calycis lobos plane superantibus orbicularibus margine undulatis; *staminibus* 15 quorum nullis petalorum medio oppositis filamentis omnino liberis aliquanto complanatis antheris subglobosis 2-porosis connectivo glanduloso; *ovario* ægre omnino infero 3-loculari; *ovulis* quove in loculo pluribus placentæ peltatæ affixis; *stylo* alte immerso.

Nungarin; *Stoward*, 346.

Folia 2·5–3 × 1·5 mm. Pedicelli filiformes 2–3 rarius usque ad 4 mm. long.; horum bracteolæ lineares, virides, circa 2 mm. long. Calycis tubus 1·5 mm., lobi ·75 mm. long. Petala 3 mm. diam. Filamenta 1–1·5 mm. long.; antheræ ·3 mm. crass. Stylus fere 1·5 mm. long.

Apparently nearest *B. pentagonantha*, F. Muell., differing chiefly in the flat membranous leaves, smaller flowers, eglandular connective and 3-celled ovary.

BÆCKEA (§ *Babingtonia*) **IMBRICATA**, sp. nov. Glabra; *ramulis* subteretibus vetustioribus paucifoliatis vel nudis junioribus foliis imbricatis omnino oclusis; *foliis* exiguis sessilibus decussatis ovatis apice mucronulatis facie concavis dorso perspicue carinatis glandulis paucis immersis præditis crassiusculis; *floribus* solitariis pedicellis folia æquantibus basi bracteolatis suffultis; *bracteolis* pedicellis circiter æquilongis foliis subsimilibus; *calycis* tubo campanulato sublevi lobis semiorbicularibus longiori; *petalis* suborbicularibus leviter crispulis; *staminibus* circa 15 quorum nullis medio petalorum oppositis filamentis aliquanto complanatis antheris subglobosis 2-porosis connectivo eglanduloso; *ovario* fere omnino infero 3-loculo loculis pluriovulatis; *stylo* alte immerso.

Kununoppin; *Stoward*, 398.

Folia 1–1·5 mm. long., circiter totidem lat. Pedicelli vix usque 2 mm. long., sæpe vero breviores. Calyx totus vix 2·5 mm. long.; lobi ægre 1 mm. Petala fere 3 mm. diam. Filamenta longiora ·75 mm. breviora ·25 mm. long.; antheræ ·3 mm. diam. Stylus ·75 mm. long.

Easily distinguished among its congeners of § *Babingtonia* by the foliage and the bracts.

MELALEUCA (*Paucifloræ*) **CONCAVA**, sp. nov. Fruticosa, crebro ramosa, glabra; *ramulis* attenuatis foliis imbricatis obtectis; *foliis* subsessilibus oblongo-subulatis superne recurvo-patentibus apice pungentibus rigidis facie concavis dorso rotundis; *floribus* in capitula parva ex ramis jam defoliatis oriunda (anne semper?) digestis; *calycis* tubo campanulato quam lobi triangulares certe longiore; *petalis* ovatis obtusissimis calyci fere æquilongis; *staminum* phalangibus circiter 15-andris ungue petala breviter excedente filamentis quam unguis brevioribus; *disco* sericeo; *ovulis* quove in loculo pluribus placentæ peltatæ affixis; *capsula* subglobulari ore nuda.

Cowcowing; *Stoward*, 492. Nungarin; *Id.*, 804.

Folia solemmniter 6–10 mm. long., 1 mm. lat. vel paullulum ultra ; petioli 1 mm. long., decolores. Calycis tubus 2 mm., lobi ægre 1 mm. long. Petala vix 2 mm. long. Stamina unguis 2·25 mm. long. ; filamenta 1 mm. long. Stylus crassiusculus, fere 4 mm. long. Capsula 3 mm. long., ore 2·25 mm. diam.

To be inserted next the Eastern *M. pustulata*, Hook., from which the foliage affords an easy means of separation.

UMBELLIFERÆ.

SIEBERA OBLONGA, sp. nov. Fruticosa, ramosa ; ramis foliosis microscopice griseo-puberulis ; foliis satis approximatis sessilibus linearibus apice mucronulatis basi obtusis ; umbellis compositis brevibus ex umbellulis 3–7 constantibus ; pedunculis sub flore quam folia brevioribus ; involucri phyllis circa 3 foliis similibus sed multo minoribus ; calycis dentibus triangularibus acutis ; fructibus late oblongis utrinque obtusissimis carpellis compressis dorso acutis jugo dorsali parum prominulo juga lateralia subevanida commissura plana.

Katanning ; Stoward, 167.

Folia plerumque 1·5–2 cm. long., 1 mm. lat., facie concava, dorso rotundulata, obscure costata, in sicco fusciscentia. Umbellæ floriferæ 2·5 × 2·5 cm. ; harum pedunculus sub flore 5 mm. sub fructu usque 2 cm. long. ; pedunculi proprii sub flore 5–6 mm. long. Involucri phylla 1–1·5 mm. long., involuelli etiam minus. Pedicelli 2 mm. long. Fructus 2 × 1·5 mm.

Differs from *S. commutata*, Benth. in the larger leaves and the oblong (not orbicular) fruits.

COMPOSITÆ.

OLEARIA (§ *Eriotriche*) PROPINQUA, sp. nov. Verisimiliter frutex copiose ramosus ; ramulis sat tenuibus bene foliosis cinereo-tomentosis ; foliis alternis sessilibus nisi subsessilibus oblongis vel anguste oblongo-obovatis obtusis margine planis necnon minutissime denticulatis supra viridibus cito glabris subtus cinereo-tomentosis ; capitulis mediocribus pluriflorescens ramulos solitatem terminantibus breviter pedunculatis ; involucri subhemisphærici 4-serialis phyllis lanceolatis acutis intus gradatim longioribus exterioribus intermediisque tomentosis intimis margine exempto glabris ; ligulis circa 14 oblongis optime exsertis ; corollis disci deorsum coaretatis ; antheris basi obtusiusculis ; stylis ramis appendicibus lanceolatis præditis ; acheniis aliquanto compressis sericeo-villosulis ; pappi setis scabriusculis sordide albis.

Cowcowing ; Stoward, 460 (also at Kew from the same place ; Max Koch, 1088).

Ramorum folia usque ad 15 vel etiam fere 20 mm. long., 3·5–5 mm. lat. ;

ramulorum $\pm 6 \times 1.5$ mm.; petioli dum adsint 1 mm. long. vel paullulum ultra. Capitula $8-10 \times 10-12$ mm.; horum pendunculus cinereo-tomentosus, 12 mm. long. nisi minus. Involuceri phylla externa circa 3 mm., intermedia 4-5 mm., intima 6 mm. long. Ligulae apice microscopice 3-denticulatæ, 10 mm. long. Corollæ disci 6 mm. long.; tubus inferne .25 mm. lat., gradatim adusque 1 mm. dilatatus. Styli rami exserti, appendicibus ægre 1 mm. long. inclusis 2 mm. long. Achænia adhuc cruda .75 mm. long. Pappi setæ 4-5 mm. long.

Affinity close with *O. pimeleoides*, Benth., of which it is probably the Western representative. From this it is known by its somewhat larger leaves, narrower and acute involucreal leaves, corolla markedly narrowed below, and style-arms with quite different appendages.

HELIPTERUM (§ *Euhelipterum*) *VENUSTUM*, sp. nov. Herba annua, spithamea, a basi pauciramosa sparsim pilosa; ramis erectis aliquantulum anfractuosius tenuibus subdistanter foliosis; foliis sessilibus angustissime linearibus obtusis; capitulis majusculis multifloresculosis homogamis solitariis terminalibus pedunculis sat longis squamis parvis hac atque illac præditis insidentibus; involucris subhemisphærici phyllis exterioribus ovatis apice rotundatis scariosis nitentibus dilute brunneis interioribus lamina longa radiante anguste oblongo-ovata obtusa vivide flava orustis; corollæ tubo a basi gradatim leviterque amplificato; antheris subinclusis loculis breviter caudatis; achæniis maxime complanatis obovato-subquadratis glabris; pappi setis circiter 10 a basi præcipue vero apicem versus plumosis dilute flavis.

Mt. Magnet district, Youanne; *Maryon*.

Folia pleraque 1.5-2.5 cm. long., modo .25-.5 mm. lat. Pedunculi longit. 8 cm. attingentes sed sæpe breviores; horum squamæ ovatæ, tenuiter scariosæ, 1-2 mm. long. Capitula pansa circa 3 cm. diam. Involuceri phylla exteriora intus gradatim longiora, 2-5 mm. long.; intima late ovata, hyalina, costa lata percursa, 2.5 mm. long., horum appendix radians 1.5 cm. long. Receptaculum convexum. Corolla 4 mm. long.; antheræ 1.25 mm. Styli rami aliquanto complanati, apice truncato-capitati, 1 mm. long. Achænia perlucida, vix matura fere 1.5 mm. long., 1 mm. lat. Pappus 2.5 mm. long.

To be inserted in the genus next *H. hyalospermum*, F. Muell.: the long radiating lamina to the inner leaves of the involucre and the very flat glabrous achenes are its chief peculiarities.

Helipterum Battii, F. Muell. Mt. Magnet district, Youanne; *Maryon*. Excellent material of this exceedingly rare plant.

H. Charsleyæ, F. Muell. Menzies; *Stoward*, 142.

HELIPTERUM (§ *Pteropogon*) **MULLINENSE**, sp. nov. Herba spithamea vel minus, a basi ramosa; *ramis* ascendentibus crebro foliosis laxe araneosis deinde piloso-puberulis; *foliis* alternis (paucis vetustioribus suboppositis) sessilibus oblongis mucronatis leviter laxequae araneosis; *capitulis* parvis circa 10-flosculosis in glomerulos terminales globosos polycephalos araneosos dispositis; *involucri* cylindrico-turbinati 5-serialis phyllis oblongis vel anguste oblongo-obovatis tenuiter hyalinis linea centrali viridi-fusca percursis appendice radiante parva ovata vel ovato-oblonga obtusa rotundatave læte flava onustis; *flosculis* inclusis pluribus sterilibus; *corolla* anguste infundibulari 5-loba; *antheris* tenuiter caudatis; *achæniis* cylindricis papillosis; *pappi* setis circa 14 corollis subæquilongis mediocriter plumosis sordide albis.

Mulline; *Maryon*.

Folia sæpissime 1·5–2·5 cm. long., 1·5–3 mm. lat. Capitulorum glomeruli circa 1·5 mm. diam. Pedunculi proprii summum 1 mm. long. Capitula pansa $5 \times 2·5$ mm. Involucri phylla 4–4·5 mm. long. (appendice 1–1·5 mm. haud exempta). Corolla 4 mm. long. Achænia adhuc cruda 75 mm., pappus 3·75 mm. long.

On first sight this might be supposed an early state of *H. Haighii*, F. Muell., but examination of the capitula would immediately show the mistake.

HELIPTERUM (§ *Pteropogon*) **INTERMEDIUM**, sp. nov. Planta tenera circiter semispithamea sæpe a basi ramosa glabra; *ramis* gracilibus superne ramulosis distanter foliosis; *foliis* inf. oppositis sup. sparsis sessilibus anguste linearibus obtusis; *capitulis* parvis homogamis raro heterogamis 3–10-flosculosis ad apicem ramulorum corymbum laxum oligocephalum efficientibus; *involucri* turbinati phyllis 4-serialibus exterioribus intermediisque ovatis illis appendice anguste lineari viridi onustis his inappendiculatis apice acutis phyllis intimis lanceolatis uti cetera hyalinis appendice brevi triangulari obtusa flava radiante præditis; *flosculis* casu sterilibus inclusis; *corolla* anguste infundibulari 5-loba; *antheris* basi tenuiter caudatis; *achæniis* aliquanto compressis anguste oblongo-ovoideis dense villosis; *pappi* setis 15–20 corollam excedentibus perspicue plumosis dilute flavis.

Kauring; *Stoward*, 593.

Folia adusque 2 cm. long. vel etiam longiora, plerumque vero ± 1 cm. long., 2–5 mm. lat. Pedunculi proprii ± 3 mm. long. Capitula pansa $7·5-8 \times 3·5-4$ mm. Involucri phylla exteriora circa 5 mm. long. (appendice lineari 2 mm. long. inclusa); intermedia 5–6 mm. long.; intima in toto 6·5 mm., harum appendix 1·5 mm. long. Corolla 3 mm. long. Achænia breviter stipitata, fere 2 mm. long.; pappus 3·5 mm. long.

Intermediate between *H. tenellum*, Turcz. and *H. gracile*, Benth., with the short radiating lamina to the inner involueral leaves of the latter and

the former's turbinate (not ovoid) involucre. From both it differs in the smaller heads with fewer florets.

H. oppositifolium, S. Moore. Mulline; *Maryon*.

H. craspedioides, W. V. Fitzg. Mulline; *Maryon*. The specimens agree well with the description of this appropriately named species

HELAPTERUM (§ *Monencyanthes*) MARYONII, sp. nov. Planta vix spithamea; caule subsimplici tenui subdistanter folioso sparsissime araneoso mox glabro; foliis sessilibus anguste lineari-lanceolatis obtusiusculis basi breviter decurrentibus scabriusculis leviter araneosis; capitulis parvis circa 12-flosculosis homogamis in cymas oligocephalas sublaxas ramulos terminantes dispositis; involucri campanulato-turbinati 4-serialis phyllis exterioribus ovatis glabris vel fere glabris interioribus lanceolatis obtusis dorso lana alba elongata onustis omnibus lamina tenuiter scariosa dilutissime brunnea præditis; flosculis exertis; corollæ tubo cylindrico (superne levissime ampliato) limbum 5-lobum duplo superante; antherarum loculis basi breviter caudatis; acheniis oblongis superne sparsim piliferis; pappi setis circa 8 achænio paullo longioribus albis.

Mulline; *Maryon*.

Folia pleraque 1-2 cm. long., 2-3 mm. lat. Cymæ 3-7-cephalæ, summum 1 cm. long. et lat. Pedunculi proprii filiformes, araneosi, 2-3 mm. long. Capitula pansa 6 × 3 mm. Involucri phylla 3-4 mm. long. Corollæ flavæ tubus 1.75 mm. long.; lobi anguste ovato-oblongi, obtusi, vix 1 mm. long. Achænia adhuc cruda 2 mm. long., pappus 2.25 mm.

Near *H. Tietkensis*, F. Muell., differing chiefly in the slenderer habit, open few-headed cymes, somewhat larger and broader capitula, longer achenes, and smaller number of hairs to the pappus.

CALOCEPHALUS STOWARDII, sp. nov. Humilis, annuus, caules plures a basi emittens; caulibus gracilibus ut folia alterna sessilia linearia apice mucronulata laxè araneoso-tomentosis; capitulorum glomerulis terminalibus sessilibus subglobosis polycephalis; pedunculis propriis abbreviatis; capitulis 3-flosculosis; involucri ovoideo-oblongi phyllis 8 inter se subsimilibus ovato-oblongis obtusis tenuiter hyalinis dilute citrinis exterioribus dorso longe lanuginosis interioribus glabris; corollis flavis; acheniis obovoideis compressis papillois; pappo e setis paucis plumosis basi intricatisistente.

Cowcowing; *Stoward*, 485.

Planta 5-8 cm. alt. Folia pleraque 6-8 mm. long., .75 mm. lat. Glomeruli 6-8 × 7-9 mm. Pedunculi proprii teneri, circa 1 mm. long. Involucri phylla 2.5-2.75 mm. long. Corolla 2 mm. long. Antherarum loculi breviter caudati. Achænia cruda .75 mm. long., pappus circa 2 mm.

The affinity of this would seem to be with *C. Drummondii*, Benth. and *C. phlegmatocarpus*, Diels. The chief points are the small alternate leaves, the very pale yellow involueral leaves all subsimilar of which the outer ones alone are woolly on the back, the head always with 3 florets, and the yellow corolla like the pappus short.

C. Skeatsianus, Ewart & White. Dowerin-Merriden district; *Stoward*, 82.

STYLIDIACEÆ.

STYLIDIUM (*Tolypangium* § *Squamosæ*) NUNGARINENSE, sp. nov. Herba perennis spithamea vel paullulum ultra; *foliis* radicalibus elongatis anguste lineari-oblongis inferne in petiolum longum extenuatis coriaceis glabris squamis parvis ovatis apiculatis scariosis intermixtis; *scapo* foliis circiter æquilongo tereti glanduloso-pubescente; *floribus* in paniculam racemiformem abbreviatam paucifloram digestis; *bracteis* oblongis lanceolatisve acutis vel obtusis; *pedicellis* floribus brevioribus uti bracteæ et calyx et corolla glanduloso-pubescentibus; *calycis* lobis late oblongis obtusissimis tubo brevioribus; *corollæ* tubo calycis lobis brevioribus lobis obovato-panduriformibus apice rotundatis posticis quam laterales plane brevioribus labello ovato obtuso lobis accessoriis posticis ambitu ovatis medium usque bifidis segmentis lanceolatis lobis accessoriis lateralibus rotundatis additis lobis 2 brevibus lineari-oblongis labello affixis; *columna* corolla longiore; *ovario* anguste oblongo-ovoideo.

Nungarin; *Stoward*, 785.

Folia (petiolo incluso) usque circa 26 cm. long., sursum 4-4.5 mm. lat.; costa media valida, utrobique perspicua. Squamæ circiter 1 cm. long., dilute albo-roseæ. Scapus ± 25 cm. long. Bracteæ 4 mm. long. Pedicelli ± 7 mm. long. Flores vix 15 mm. long. Calyx totus 7.5 mm. long.; lobi soli 3 mm. Corollæ tubus 1.5 mm. long.; lobi postici 4 mm., laterales 6 mm., labellum 1.5 mm. long., hujus lobi accessori 1 mm. long.; lobi accessori postici 1.25 mm. long., laterales 2.5×2 mm. Columna vix 10 mm. long.

To be inserted next *S. affine*, Sond., which has larger flowers with lanceolate sepals, a longer tube to the corolla, differently shaped corolla-lobes both primary and accessory, and the column shorter than the corolla.

STYLIDIUM (*Nitrangium* § *Thyrsiforme*) GLANDULIFERUM, sp. nov. Herba semispithamea; *foliis* radicalibus linearibus inferne petioliformi-angustatis margine cartilagineo minute ciliolato-serrulatis glabris squamis parvis ovatis apiculatis scariosis intermixtis; *scapo* folia excedente glanduloso-hirsutulo; *racemis* subdistanter plurifloris; *bracteis* linearibus pedicellis brevioribus ut pedicelli calycesque glanduloso-hirsutulis; *calycis* tubo oblongo-ovoideo

lobos oblongos obtusos excedente; *corollæ* tubo calycis lobos æquante lobis æquimagnis ovatis obtusis lobis accessoriis 2 oblongo-ovatis obtusissimis glandulis stipitatis maxime prominentibus præditis labello lineari-lanceolato appendicibus brevibus filiformibus instructo; *columna* longe exserta; *ovario* 2-loculo ovulis pluribus 1-serialibus; *capsula* verisimiliter ovoidea.

Kununoppin; *Stoward*, 481.

Folia 6–8 cm. long., 1·5–2 mm. lat. Scapus evolutus saltem 13 cm. attingens. Pedicelli filiformes, vetustiores tandem 8–15 mm. long. Bractææ 3–4 mm. long. Flores 13 mm. long. Calyx totus 5 mm., lobi 1·5 mm. long. Corollæ tubus 1·5 mm. long.; lobi ægre 3 mm. long., lobi accessorii longit. 1 mm. paullulum excedentes; labellum 1 mm. long., appendicibus ·5 mm. long. onustum. Columna 6 mm. long.

Known from all the species of *Nitrangium* by the prominently glandular accessory lobes of the corolla.

GOODENIACEÆ.

SYMPHYOBASIS ALSINOIDES, sp. nov. (Pl. 12. A.) Herba annua, exigua, vix semispithamea a basi graciliter ramosa, glanduloso-puberula; *foliis* lineari-oblongis vel anguste lanceolato- vel oblanceolato-linearibus obtusis costa media utrobique sat perspicua percursis; *floribus* parvulis in axillis solitariis pedicellis filiformibus foliis sæpius brevioribus fultis; *calycis* segmentis basin usque liberis lineari-lanceolatis acutis; *corolla* calycem paullo superante tubo urceolari ovario adnato antice in calcar breve tumidulum tubo concretum producto limbi lobis inter se similibus vix usque ad ovarium liberis oblongo-lanceolatis obtusis anguste alatis extus crebro glandulosis; *filamentis* filiformibus quam antheræ oblongæ apice mucronulatæ brevioribus; *stylo* erecto crassiusculo staminibus æquilongo.

Mulline; *Maryon*.

Folia longit. summum 2 cm. vel paullulum ultra, juniora 1–1·5 cm., hæc 1–1·5 mm. lat., cetera præsertim pauca radicalia 2–4 mm. Pedicelli 1 cm. long., patentes. Calycis segmenta 3 mm. long. Corolla tota 4 mm. long., hujus pars ovario adnata 1·25 × 1·25 mm.; calcar fere 1 mm. long.; lobi 2·5 mm. long.; horum alæ circa ·75 mm. long., 1 mm. lat., margine apicali truncatæ alibi undulatæ. Filamenta ·5 mm., antheræ ·75 mm. long. Stylus 1 mm. long.; indusium ·5 mm. diam.

K. Krause proposed, and no doubt properly, this genus for the reception of Mueller's curious *Velleia macroplectra*, the adhesion to the ovary all its way up of the corolla being the chief distinction of the new genus. In addition the flowers of *V. macroplectra* are provided with a long spur, an organ also found in the case of *S. alsinoides*, but greatly reduced in size and united with the tube of the corolla throughout its course. This feature and

the very small flowers of *S. alsinoides* serve at once to separate the two species. In general appearance the plant is remarkably like *Evolvulus alsinoides*, L.

This genus yields an excellent illustration of a very rare occurrence, viz. where the calyx is entirely free from the ovary while the corolla is adnate to it all the way up.

Velleia discophora, F. Muell. Kanunoppin; *Stoward*, 726.

V. rosea, S. Moore. Mulline; *Maryon*. Excellent material of this rare and beautiful plant. The specimens range by gradation from one very similar to the type up to others reaching 20 cm. in height and with the characters of K. Krause's var. *erecta*, which is therefore not worthy of separation as a variety.

CALOGYNE LINEARIS, sp. nov. Herba parvula, erecta; caule simpliciter parum ramoso gracili glanduloso-piloso-pubescente; foliis radicalibus oblongis vel oblongo-obovatis obtusis basin versus in petiolum attenuatis caulinis linearibus vel lineari-spathulatis omnibus glanduloso-pilosis; floribus parvis flavis pedunculis gracilibus folia sæpe excedentibus insidentibus; calycis lobis anguste lineari-lanceolatis tubo æquilongis pilosulis; corollæ tubo brevi lato lobis anticis alis oblongis acutis præditis lobis posticis uno latere quam antici multo longius alatis; filamentis complanatis glabris antheris ovoideis apice minute mucronulatis; stylo biramoso; capsula compressa anguste ovoidea pilosula; seminibus ala angusta orbiculari cinctis.

Kauring; G. W. Brown (Hb. *Stoward*, 136, 795). Kanunoppin; *Stoward*, 307.

Planta sæpe $\pm$ 5 cm. alt., rarius 8–9 cm. attingens. Folia radicalia 5–15 mm. long., caulina 7–20 mm., hæc 5–3 mm. lat. Pedunculi usque ad 4 cm. long., plerique vero multo breviores. Calycis tubus 2 mm., lobi 2 mm. long. Corolla 7.5 mm. long.; hujus tubus 1×1.5 mm. Filamenta 2 mm. long.; antheræ .65 mm. Stylus pilosulus, 1 mm. long.; rami (indusio incluso) 3 mm. Capsula 7 mm. long. Semina 3 mm. diam.

Separable on sight from *C. Berardiana*, F. Muell., by the lowly habit and very small flowers.

Scævola restiacea, Benth. Mt. Marshall; *Stoward*, 374. Bruce Rock; *Id.*, 422.

Verrauxia villosa, E. Pritz. Kanunoppin; *Stoward*, 728.

Dampiera sacculata, F. Muell. Bruce Rock; *Stoward*, 424. Kauring; G. W. Brown (Hb. *Stoward*, 736).

D. juncea, Benth. Kauring; G. W. Brown (Hb. *Stoward*, 700, 734).

DAMPIERA (§ *Eudampiera*) RUPICOLA, sp. nov. *Ramulis* tenuibus subteretibus striatis glabris; *floribus* parvis sessilibus lineari-oblongis mucronulatis membranaceis nequaquam rigidis utrinque glabris; *floribus* parvis sessilibus vel subsessilibus ex axillis plerumque ramulorum ultimarum abbreviatorum solitatem oriundis; *calycis* tubo pilis simplicibus appressis sericeo lobis abbreviatis deltoideis obtusis; *corollæ* extus appresse sericeæ lobis anticis alis late oblongis margine undulatis præditis; *filamentis* lineari-oblongis apice truncatis antheras oblongas obtusas adæquantibus; *stylo* staminibus dimidio longiore; *ovulo* a basi erecto lineari.

Bruce Rock; *Stoward*, 720.

Innovationes appresse sericeæ. Folia (inferiora non suppetunt) circa 7–10 mm. long., fere usque 2 mm. lat. Bracteæ foliaceæ. Pedicelli summum 1 mm. long. Calycis tubus 2 mm., lobi 75 mm. long. Corolla 8 mm. long.; loborum alæ anticorum 4.5 × 1.5 mm. Filamenta 1 mm., antheræ 1 mm. long. Stylus crassiusculus 3 mm. long.; indusium 3 mm. diam.

Apparently nearest *D. leptoclada*, Benth., but with its slender habit, small thin leaves, and small flowers easily distinguished from it.

DAMPIERA (§ *Eudampiera*) STOWARDII, sp. nov. Suffrutex erectus circiter spithameus; *ramis* superne ramulosis ut ramuli tenuibus angulatis minutissime sericeis; *foliis* sessilibus oblongo-obovatis vel oblanceolato-oblongis summis equidem lineari-lanceolatis utrinque obtusis margine levissime revolutis coriaceis rigidis utrinque sed præsertim pag. inf. minutissime sericeis; *pedunculis* axillaribus 1–2-floris quam folia plerumque brevioribus uti pedicelli alabastraque tomento arcto stellato fusco-griseo indutis; *bracteis* minutis ovatis tomentosis; *calycis* tubo cylindrico lobis evanidis; *corollæ* lobis anticis alis oblongo-obovatis margine undulatis se ipsos bene superantibus onustis; *filamentis* linearibus antheris oblongis obtusis æquilongis; *stylo* quam stamina vix dimidio longiore.

Locality uncertain, most probably Belka; *Stoward*, 306.

Folia in sicco læte viridia, pleraque 2.5–4.5 cm. × 7–17 mm., juniora (ramulorum florentium) ± 15 × 4 mm. Pedicelli ± 7 mm. long. Bracteæ modo 1 mm. long. Calycis tubus 3.5 mm. long. Corolla 12 mm. long.; loborum anticorum alæ 7 mm. long. Filamenta 1.25 mm., stylus 3.5 mm. long.

D. glabrescens, Benth. comes nearest to this, but the new species has, *inter alia*, broader leaves and much smaller and quite differently shaped bracts. The foliage is more like that of the Eastern *D. adpressa*, A. Cunn.

EPACRIDACEÆ.

STYPHELIA TENUIFLORA, Lindl., var. BREVIFLORA, var. nov. *Folia* lineari-lanceolata, 10–15 × 2–3 mm. *Corolla* modo 10 mm. long. *Darlington*; *Stoward*, 241.

LEUCOPOGON (§ *Pleuranthus*) PUBESCENS, sp. nov. Frutex ramosus; ramulis ultimis uti foliorum pag. inf., bracteæ necnon bracteolæ griseo-pubescentibus; foliis parvis sessilibus ovatis vel oblongo-ovatis apice debiliter pungentibus planis patentibus coriaceis supra mox glabrescentibus nitidisque maxime inconspicue costatis subtus costis pluribus parallelis percursis; floribus in axillis superioribus solitariis vel binis pedunculo foliis multo brevioribus; bracteis ovatis acutis quam bracteolæ sub-orbiculares subito mucronatæ plane brevioribus; sepalis bracteolas duplo excedentibus oblongo-lanceolatis breviter acuminatis extus pilosis; corollæ extus glabræ tubo calyce breviori faucibus villosa lobis revolutis lanceolatis acuminatis tubum æquantibus; antheris supra medium filamentum conjunctis oblongis emarginatis loculis omnimodo fertilibus; disci glandulis ovato-oblongis obtusis ovarium sericeum 5-loculare æquantibus vel paullulum superantibus; stylo exserto.

Ongerup; Stoward, 850.

Folia 4-5 × 1·5-2 mm., in sicco griseo-viridia. Pedunculi crassi, circa 1 mm. long. Bracteæ 7·5 mm., bracteolæ fere 2 mm. long. Calyx 3·5 mm. long. Corollæ tubus 2 mm. long.; lobi recurvi totidem. Antheræ 1·5 mm. long. Disci glandulæ 6-7·5 mm., ovarium 6 mm., stylus 3·75 mm. long.

The foliage and indumentum are among the crucial features of this species, which appears to come nearest *L. cordifolius*, Lindl. In appearance it is much like *L. ovalifolius*, Sond., which has, however, flowers entirely dissimilar.

L. planifolius, Sond. Katanning; Stoward, 169.

One cannot but regret to see modern authors following Mueller's lead and sinking *Leucopogon* and several other genera in *Styphelia*. The separation into genera, originally proposed by Robert Brown, was approved among others by such competent authorities as De Candolle, Endlicher, Meisner, Lindley, and even Baillon. Moreover, after Mueller's rebellious action Bentham re-examined the question, who, while admitting Mueller's contention, denied by no one, as to the existence of intermediate species, objects to Mueller's comparison of *Styphelia* so enlarged with *Acacia* and other genera of many species which remain entire by general agreement, very properly observing that whereas *Acacia* and *Eugenia* for instance show the greatest uniformity in floral structure, that cannot be maintained of *Styphelia* in the Mueller sense. Authors who attach such importance to connecting links forget that generic demarcation is no more Nature's object than is specific; they also fail to realise how many amalgamations would have to be made upon the Muellerman principle if consistently carried out, together with the confusion in nomenclature resulting therefrom.

LOGANIACEÆ.

Logania flaviflora, F. Muell. Kauring; *G. W. Brown* (Hb. Stoward, 620).

BORAGINACEÆ.

Halgania viscosa, S. Moore. Bruce Rock; *Stoward*, 717.

SOLANACEÆ.

Solanum nummularium, S. Moore. Mulline; *Maryon*.

S. Oldfieldii, F. Muell. Kerrenketten; *Stoward*, 22. Dowerin-Merriden district; *Id.*, 74. Mt. Marshall; *Id.*, 385.

MYOPORACEÆ.

Pholidia Woolsiana, F. Muell., var. *dentata*, Ewart & White.* Dowerin-Merriden district; *Stoward*, 68.

EREMOPHILA MACULATA, F. Muell., var. LINEARIFOLIA, var. nov. *Folia* abbreviata, anguste linearia, $\pm$ 1 cm. long. *Pedicelli* curvati, foliis circiter æquilongi. *Calyx* 4 mm., corolla 17 mm. long. Nungarin; *Stoward*, 347. Cowcowing; *Id.*, 494.

A somewhat remarkable variety of this variable species: it is perhaps entitled to specific rank.

E. Oldfieldii, F. Muell., var. *angustifolia*, S. Moore. Mulline; *Maryon*.

E. subfloccosa, F. Muell. Nungarin; *Stoward*, 348.

E. DRUMMONDII, F. Muell., var. BREVIS, var. nov. *Folia* quam ea typi breviora, sc. 5–15 mm. raro adusque 20 mm. long. *Pedicelli* multo breviores (vix usque 5 mm. long.). *Corolla* modo 14 mm. long. Kununoppin; *Stoward*, 393. Cowcowing; *Id.*, 461.

Possibly a distinct species, but the points of agreement seem to override the differences.

VERBENACEÆ.

Dicrastyles fulva, Drumm. Yandanooka; *Stoward*, 128.

D. parvifolia, F. Muell. Mt. Marshall; *Stoward*, 375.

Pityrodia cærulea, Ewart. Mt. Marshall; *Stoward*, 373. Cowcowing; *Id.*, 401, 458.

P. racemosa, Benth. Kununoppin ; *Stoward*, 392.

P. lepidota, E. Pritz. Nungarin ; *Stoward*, 283. Cowcowing ; *Id.*, 317. Trayning ; *Id.*, 442.

Cyanostegia angustifolia, Turcz. Dowerin-Merriden district ; *Stoward*. Bruce Rock ; *Id.*, 323, 435, 718. Trayning ; *Id.*, 328, 443.

LABIATÆ.

HEMIGENIA (§ *Diplanthera*) VISCIDA, sp. nov. Suffrutex circa spithameus secrementum copiosum viscidum proferens ; *caule* nudo superne 2-ramoso (anne semper ?) ramis indivisis foliosis ; *foliis* oppositis sessilibus ovatis obtusis basi cuneatim angustatis coriaceo-membranaceis pagina utraque glandulis immersis copiosissime obsitis ; *floribus* in axillis solitariis subsessilibus ; *bracteolis* calycem fere adæquantibus lanceolatis breviter acuminatis ; *calycis* usque medium divisi tubo anguste campanulato 10-costato lobis inter se subæqualibus lanceolatis acuminatis margine ciliolatis ; *corollæ* tubo calyce paullulum brevioris infundibulari labio postico 2-lobo labii antici lobis quam postici brevioribus inter se subæqualibus late ovatis obtusissimis ; *antherarum* connectivo lato satis elongato staminum posticorum apice truncato breviterque barbello staminum anticorum loculo parvulo effeto glabro prædito.

Meenar ; *Stoward*, 815.

Folia 15–19 × 9–10 mm. long. Pedicelli 1 mm. long. Bracteolæ sparsim piloso-ciliatæ, 10 mm. long. Calyx 13 mm. long., lobi soli 6·5 mm. Corollæ tubus 11·5 mm. long. ; hujus lobi postici obovati, 6·5 mm. long. ; lobi antici 5 mm. long. Antheræ 1·25 mm. long. ; connectivus (loculo effeto incluso) 2 mm. Stylus ægre 12 mm. long.

The flower examined was somewhat injured, and there being but one other which must be preserved upon the specimen, the description of the limb of the corolla may err in some respects and should be regarded as provisional merely.

CHENOPODIACEÆ.

Chenopodium cristatum, F. Muell. Mulline ; *Maryon*.

KOCHIA STOWARDII, sp. nov. *Ramis ramulisque* tomento subtili albo circumdatis his crebro foliosis ; *foliis* sessilibus linearibus obtusis crassiusculis puberulis ; *floribus* in axillis superioribus solitariis ; *perianthio* fructescente fere glabro apice subplano tubo turbinato superne prominenter plurisulcato lobis late triangularibus margine sericeis ala horizontali vix omnino continuo margine undulato subtiliter multinervoso alis accessoriis nullis.

Nungarin ; *Stoward*, 793.

Folia 6–8 mm. long., humectata lat. 1 mm. paullulum excedentia, in sicco

fusco-grisea. Perianthii fructescentis tubus 4 mm. long., paullo supra basin 2.5 mm. apice 5 mm. lat.; hujus os 10 mm. diam.; ala sola 3 mm. lat.

In habit and foliage very like *K. spongiosa*, F. Muell., but the description of the fruit (there is no fruiting specimen in our herbaria) does not agree. The turbinate perianth-tube coupled with the absence of accessory wings form the chief characteristic of the species.

ANISACANTHA HISPIDA, sp. nov. Suffrutex humilis intricate ramosus; ramis foliosis cito glabris tandem cicatricibus foliorum delapsorum prominentibus onustis; foliis parvis linearibus obtusis dorso rotundatis crassiusculis pilis griseis hispido-villosis diu persistentibus præditis; perianthio urceolato spinis 4 inæqualibus munito lobis 4 abbreviatis deltoideis villosulis; staminibus (anne semper?) 4; stylis 2 basi breviter connatis; fructu brevi quadrato apice truncato villosuloque spinis divaricatis 4 (quorum extant 2 elongatæ, 1 intermedia, quarto vero minima).

Mulline; Maryon.

Folia $\pm$ 4 mm. long., primo ascendunt, demum patentia. Flores perplurimi. Styli rami inferne breviter barbellati, fere 1 mm. long. Fructus 1 mm. long. et lat.; spini longiores 5-7 mm. long.; spina intermedia recta vel uncinata, circa 2 mm. long.; minima debilis, incurvus, circiter .5 mm. long.

A very distinct species, known from its congeners by means of the hispid-villous foliage.

PHYTOLACCACEÆ.

GYROSTEMON BROWNII, sp. nov. Frutex glaber habitu fastigiato; ramulis gracilibus angulosis foliosis; foliis sessilibus subteretibus angustissime linearibus apice mucronulatis; stipulis exiguis deltoideis acutis; floribus in racemos paucifloros foliis certe brevioribus digestis; pedicellis quam calyx longioribus minute bracteatis; perianthio breviter 5-lobato microscopice farinoso lobis rotundatis; fl. masc. staminibus 7-8 uniseriatis discum sat eminens apice truncatum breviterque 5-lobum cingentibus; fl. fem. carpellis 4-5 ovoideis obtusis scabriusculis; stylis brevibus late subulatis crassiusculis columnæ centrali brevi affixis; fructu —.

Bruce Rock; Stoward, 704 (♂), 745 (♀).

Folio $\pm$ 15 mm. long., circa .5 mm. lat., in sicco viridia; stipulæ (uti bracteæ) decolores longit. 1 mm. nunquam excedentes. Racemi adusque 5-6 mm. long., etsi sæpe breviores. Pedicelli fl. masc. $\pm$ 2.5 mm. long.; fl. fem. 1.5-2 mm. Fl. masc. perianthium 2.5 mm. diam.; fl. fem. 2 mm. Anthera a latere aliquanto compressæ, 1-2 mm. long. Discus .5 mm. diam. Carpella vix 2 mm. long., styli fere 1 mm.

A very distinct species with, as chief marks, the short racemose inflorescences, the few stamens and carpels, and the short stigmas.

The plant has been named in recognition of Mr. G. W. Brown's excellent collecting work at Kauring.

PROTEACEÆ.

Isopogon scabriusculus, Meisn. Nungarin; *Stoward*, 415.

Grevillea insignis, Kipp. Kauring; *G. W. Brown* (Hb. *Stoward*, 755).

GREVILLEA (§ *Eriostylis*) LYCOPODINA, sp. nov. Fruticosa, crebro ramosa, floribus exemptis glabra; ramulis rigidis arrecto-ascendentibus junioribus foliis omnino obtectis; foliis parvulis imbricatis inferneque cauli applicatis linearibus appendice filiformi rigidiusculo fusco cum folio angulum fere rectum efficiente onustis facie planis leviterve concavis dorso aliquantulum rotundis necnon sulco centrali percursis; floribus in umbellas sessiles paucifloras axillares vel terminales dispositis; pedicellis folia bene superantibus superne leviter dilatatis albo-villosis; perianthii albo-villosi segmentis linearibus apice suborbicularibus; toro recto; glandula obsoleta; ovario brevissime stipitato albo-villoso; stylo quam stipes plane longiore incurvo albo-villoso sursum claviformi apice laterali ambitu orbiculari stigma centricum breve anguste conico-cylindricum gerente; folliculo oblongo apice breviter rostrato pubescente.

Kauring; *G. W. Brown* (Hb. *Stoward*, 614).

Folia 4 mm. long., horum appendix 1-2 mm. long., in sicco læte viridia. Pedicelli usque ad 8 mm. long. Perianthii segmenta modo 3 mm. long.; antheræ 6 mm. Stipes 5 mm. long. Ovarium 1 mm. diam. Stylus apice excluso 3 mm. long., apex 1 × 1 mm. Folliculus 10 × 4 mm., unicus scrutatus monospermus. Semen lineari-oblongum, ala brevi apicali necnon in marginem angustissime extenuata præditum, 7.5 mm. long.

Easily recognised by the leaves. The affinity is with *G. oxystigma*, Meisn. and *G. uncinulata*, Diels: there are besides several floral peculiarities which need not be dwelt upon.

G. teretifolia, Meisn. Bruce Rock; *Stoward*, 446.

G. acerosa, F. Muell. Bruce Rock; *Stoward*, 476. Specimen somewhat off type, the umbels standing on pedicels up to 3 mm. in length and the flowers being larger.

G. integrifolia, Meisn. Kauring; *G. W. Brown* (Hb. *Stoward*, 638).

G. INTEGRIFOLIA, Meisn., var. *GRANDIFLORA*, var. nov. A typo abhorrens de floribus manifeste majoribus longiusque pedicellatis. *Pedicelli* 3 mm. long.

Perianthium 6 mm. long.; hujus pars dilatata 2 mm. long. *Conus stigmaticus* 1.5 mm. long.

Nungarin; *Stoward*, 289.

GREVILLEA (§ *Conogyne*) FLABELLIFOLIA, sp. nov. Verisimiliter frutex; ramulis erectis rigidis crebro foliosis costis glabris foliorum basin continuationem efformantibus exemptis pubescentibus deinceps glabrescentibus; foliis sessilibus obovatis apice flabellatim inæqualite 5-7-lobis (lobis arrectis oblongis breviter pungenti-acuminatis) basi cuneatis nervis pag. inf. insigniter prominentibus in sicco dilute viridibus coriaceis subtus nervis exclusis pubescentibus; floribus in racemos terminales breviter pedunculatos densifloros foliis longioribus uti pedicelli breves pubescentibus digestis; perianthii subtiliter sericei sub limbo recurvi segmentis oblongis sursum attenuatis apice ovatis; toro recto; glandula prominente unilaterali; ovario sessili aliquanto inæquilaterali sericeo-villoso; stylo elongato complanato glabro sub cono stigmatico maxime abbreviato convexo horizontaliter dilatato.

Nungarin; *Stoward*, 414.

Folia 1.5-2 cm. long., sub apice 8-17 mm. lat.; lobi plerique 4-8 mm. long. Racemi 4.5 cm. long., circa 1 cm. diam.; horum pedunculus circa 5 mm. long. Pedicelli 1 mm. long. vel paullulum ultra. Perianthii segmenta 9 mm. long., pars dilatata 1.25 mm. Glandula ægre 1 mm. long. Ovarium 1.5 mm. long. Stylus fuscus 14 mm. long.

A very distinct species: *G. apiculoba*, F. Muell., is probably near it, though in leaf and in flower there are several important differences.

Persoonia quinquenervis, Hook. Kauring; *G. W. Brown* (Hb. *Stoward*, 517).

P. Saundersiana, Kipp. Bruce Rock; *Stoward*, 441.

EUPHORBIACEÆ.

MONOTAXIS (§ *Hippocreandra*) STOWARDII, sp. nov. Suffrutex graciliter ramosus glaber; ramulis tenuibus foliosis; foliis sessilibus brevissimeve petiolatis anguste lineari-lanceolatis apice mucronulatis basi acutis vel obtusiusculis margine revolutis subcoriaceis; stipulis parvulis subulatis dutule persistentibus; floribus (anne semper paucis ♂ et ♀?) fasciculatis pedunculis gracilibus bracteis exiguis basi stipatis insidentibus; sepalis masc. 5 oblongo-ovatis obtusiusculis; petalis sepalis paullo longioribus iisque subsimilibus basi unguiculatis; staminibus 10 filamentis filiformibus petalis vix æquilongis; sepalis ♀ ovato-oblongis obtusis quam petala ovata parum brevioribus; ovario globoso stylis abbreviatis sparsim breviterque cristatis coronato.

Trayning; *Stoward*, 292.

Folia ± 1 cm. long., 1.5–3 mm. lat., in sicco viridia; costa media pag. inf. perspicua. Stipulae circa 1 mm. long. Pedunculi 2–3 mm. long. Sepala masc. 1.5 mm., petala 2 mm. long. Filamenta 1.5 mm. long.; antherarum loculi .3 mm. long. Ovarium paullulum ultra 1 mm. diam., glabrum. Styli purpurei, modo .5 mm. long.

Near *M. gracilis*, Baill.; distinguished by the small flowers, especially female ones; the latter with very short styles. The leaves are of the bifacial kind with stomata chiefly on the underside.

CASUARINACEÆ.

CASUARINA (§ *Acanthopitys*) STOWARDII, sp. nov. Ramulis erectis gracilibus microscopice puberulis internodiis 1 fere 2 cm. long. striis pæne evanidis in dentes 14–15 abbreviatis subulatos ciliolatos productis percursis; *strobilis* anguste ovoideis; *bracteis* late ovatis dorso incrassatis necnon fulvo-villosis apice lignescentibus subitoque pungenti-acuminatis; *bracteolis* bracteas breviter superantibus oblongis apice acumine pungenti integro vel bifido acuminatis dorso carinatis inappendiculatisque appresse fulvo-villosis; *seminibus* oblongo-obovatis acutis testa sordide alba.

Nungarin; *Stoward*, 743.

Ramuli 1 mm. diam. Nodorum dentes tenaces, inferne dilutissime flavi, superne fusci, 1 mm. long. Flores non suppetunt. Strobilus 2.8×2 cm. Bracteæ 7.5 mm., bracteolæ 9 mm. long. Semina 8 mm. long.; ala sola 5×2 mm.

Judging from the description evidently close to *C. acuticalvis*, F. Muell.; differing from it chiefly in the 14–15-toothed nodes with considerably shorter and rigid teeth, the smaller cones, and the oblongo-obovate acute wing to the seeds, this suggesting diversity in the shape of the bracteoles, though the point does not emerge in Mueller's description.

CASUARINA (§ *Trachypitys*) LEPTOTREMA, sp. nov. Ramulis erectis medio-criter striatis glabris internodiis ± 4 mm. long. dentibus pro nodo 6 abbreviatis deltoideis acutis; *strobilis* late cylindricis raro subglobosis glabris; *bracteis* parvulis (sc. apice solo triangulari acuminato emergente); *bracteolis* apice brevissime productis dorso lignescentibus tuberculisque 3–4 parvis paullulum eminentibus obtusissimis onustis post dehiscenciam spatium anguste ellipticum relinquentibus; *seminibus* oblongo-obovatis apice truncatis medioque subito mucronulatis brunneis.

Nungarin; *Stoward*, 742.

Ramuli 1 mm. diam. Nodorum dentes vix .5 mm. long., pallide brunnea. Strobili plerique 20×12 mm., nonnunquam paullo longiores brevioresve. Bractearum pars emergens 1 mm. vix attingens. Bracteolarum culmen

circa .2 mm. alt. Spatia intervalvaria 2×1 mm. Semina 4 mm. long.; ala sola 2×2.5 mm.

This can be distinguished from *C. humilis*, Otto & Dietr. by the less markedly striate branches with six (not four) teeth at the nodes, the narrower cones with less prominent dorsal tubercles to the bracteoles, and the narrow opening left between the bracteoles on escape of the smaller light brown (instead of black) seeds which are provided with a narrower wing.

III. SOME NEW OR RARE AUSTRALIAN SPECIES OF OLDER COLLECTIONS.

This part of the memoir is devoted almost exclusively to notice of plants communicated by travellers at various times during last century, and will, it is trusted, prove the forerunner to another, possibly others, of similar nature. It will be convenient, and perhaps may not be without interest, to notice shortly the chief collectors whose names appear in the following pages, with the more reason inasmuch as some of these names are omitted from the official 'History of the Collections contained in the Natural History Departments of the British Museum.'

ARMSTRONG, J. Was at Port Essington in 1840. There is a fair set of his plants at the Museum, though not so good as that at Kew; but the Museum set contains here and there a species not in the Kew herbarium.

BROWN, ROBERT. The full set of this, perhaps the most important of all Australian collections, is of course at the British Museum. A large number of Brown's plants are also at Kew presented under the terms of the J. J. Bennett bequest in 1872.

BYNOE, BENJAMIN. Surgeon on the 'Beagle' 1837-43; better known as having acted in a similar capacity on the same ship during the subsequent voyage immortalized by Charles Darwin. In the preface to 'Flora Australiensis,' Bentham regrets the want of funds which prevented the plants collected by the "officers of the 'Beagle' under Captain Wickham and Captain Stokes" being made available for examination at the Museum. There was, however, no reason for this regret, since examination of the consignment and comparison of its contents with the Bynoe plants at Kew show the two collections to be essentially the same, though with specimens missing here and there from one or the other. There seems little reason to doubt, therefore, that the "officers" alluded to above were really concentrated in the person of the surgeon, and this view has been adopted on the Museum labels.

CUNNINGHAM, ALLAN. Bearing in mind that Cunningham owed his position largely to the offices of Banks, it is only natural to find his devoted services as collector well in evidence at the Museum. The reader may be

reminded how, after accompanying the first Oxley expedition into the interior of New South Wales (1817), Cunningham joined Captain King of the 'Mermaid' in the succeeding year, a second expedition under the same commander following in 1819, in 1820 a third, and a fourth, also under Captain King but this time in the 'Bathurst,' a somewhat larger and more convenient vessel, in 1821-2. Though the most valuable of Cunningham's collections were made during these four expeditions which touched at various points in the eastern, northern, and western parts of the island-continent, he made several overland journeys in subsequent years, notably those to Moreton Bay in 1827-9. Together with the original manuscripts and correspondence relating to them, a large proportion of the specimens amassed as above-mentioned are at the Museum; but though a certain percentage had many years ago been made available for study, there remained a large number to be dealt with, and even now the work is not quite finished. Fortunately this was not a matter of such importance as might have been the case, owing to Kew's acquirement of Cunningham's own herbarium through the generosity of his friend Heward. Nevertheless the two herbaria though closely parallel are not identical, there being reciprocal absences from both. It was unfortunate that Cunningham, instead of a current enumeration, adopted the unsatisfactory plan of numbering each collection separately; this was probably the reason for Bentham's neglecting to cite this botanist's numbers, although he quotes Drummond's, who worked on the same method. Cunningham's practice has entailed much labour and loss of time in ascertaining from his manuscripts the locality and other details relating to his material, since the tracing out of a number frequently involved scrutiny of many lists, often indeed of all, and even then sometimes without result.

Mr. Maiden's paper, "Records of Western Australian Botanists" (Journ. W. Austral. Nat. Hist. Soc. vi. pp. 5-27), it may be noted, does not include Cunningham's name, although both in 1818 and 1821-22 King George's Sound and other places in the South-West were visited.

DAEMEL, E. Collected many years ago in the Cape York peninsula. What seems to be a good set was purchased of a "naturalist" named Huggins in 1868, as was probably that at Kew.

DE BOULEY. The only reference obtained to this collector is in a letter of George Maxwell to Kew. In 1872 Maxwell writes that he is sending a few seeds "which Mr. De Bouley has kindly undertaken to deliver." The collection was made in the north-west part of the colony, and, as might be expected, contains much of interest besides here and there a new species.

FRASER, CHARLES. Accompanied Oxley's N.S. Wales Survey Expedition 1817-18. Was at Moreton Bay in 1828, and in the preceding year at King

George's Sound. Forgetfulness of the last-mentioned fact has led Bentham to localize *Trichinium Fraseri*, A. Cunn., as a N. S. Wales plant, whereas it is really a South-Western species. This name, too, is omitted from Mr. Maiden's useful "Records" above noted.

GILBERT, JOHN. Besides plants, collected bird-skins for Gould the ornithologist; the Museum has a considerable number of his South-Western plants. Bentham cites this name but rarely and never with the number, although, for instance, Meisner (DC. Prod. xiv. *passim*) had previously done so where possible.

LEA, Rev. T. S. Will be remembered as the companion of Messrs. Ridley and Ramage on their visit to Fernando Noronha in 1887. Mr. Lea was in South Australia in the latter half of 1885, and during the succeeding year he visited North Australia and Queensland. His plants, amounting to nearly 1400, especially those from Palmerston, Adelaide River, and Pine Creek, chosen with judgment and well preserved, are often of great interest and value.

LEICHARDT, F. W. L. In the not very large collection of this traveller's plants, those of most interest are from North Australia.

LESCHENAULT DE LA TOUR. Botanist to the Baudin Expedition at the beginning of the last century. A set of his plants communicated from the Paris Museum in 1816 includes a few co-types of great value. The most interesting of this collector's plants are from the Shark's Bay District, a locality his fellow-countryman Gaudichaud also visited a few years afterwards. Both these names are omitted by Mr. Maiden.

MACGILLIVRAY, J. Botanist to various Australian expeditions. The Museum has a set of his plants dated 1842 when on the 'Fly,' Sandy Cape and Port Bowen being the localities.

MAXWELL, G. Collected in South-West Australia, mainly in the Mount Barren coastal region. Though the bulk of his plants went to Melbourne, whence Mueller communicated many to Kew, a large number found their way to the Museum, including a numbered set dated 1861, the rest being without numbers. A certain proportion of these are not at Kew, including here and there a species (and one genus) new to science. Specimens subsequently collected (1872-8) were presented to the Museum by Mr. J. Cosmo Melvill.

MITCHELL, Sir T. The Museum has nearly 500 of this well-known traveller's specimens, which are often the more valuable from having attached to them dated labels enabling the localities to be ascertained upon reference to the explorer's second work, that of 1848.

PODENZANA, G. Collected at various places in Queensland and New South Wales, 1891-3.

CELASTRACEÆ.

Psammomoya choretroides, Diels & Loes. This remarkable plant, only recently assigned to its true place, was collected by Gilbert three-quarters of a century ago; unfortunately the locality is unknown, the label having gone astray. The species, it may be mentioned, is also represented at the Museum by the following:—Quellington; *C. Andrews*, 646. Bruce Rock; *Stoward*, 420. Nungarin; *Id.*, 466.

Curiously enough Mueller originally described this as a *Logania*!, though how so accomplished a botanist fell into this error is incomprehensible.

SAPINDACEÆ.

DISTICHOSTEMON FILAMENTOSUS, sp. nov. *Ramis* tenuibus foliosis sparsim pubescentibus; *foliis* oblongis vel oblongo-lanceolatis (raro anguste oblongo-ovatis) apice acutis obtusive nonnunquam obtusissimis basi in petiolum manifestum angustatis margine crenato-dentatis crenulatisve interdum integris membranceis sparsim ciliatis ceteroquin glabris; *floribus* paucis polygamis terminalibus vel ex axillis summis ortis longipedunculatis; *sepalis* 6–8 lanceolatis acutis extus puberulis; *staminibus* verisimiliter saltem 20 antheris oblongis filamentis sibi ipsis æquilongis insidentibus; *ovario* velutino; *capsula* ambitu late obtriangulari triquetra alis tribus quam valvæ angustioribus inferne imminutis prædita valvis a dissepimento dehiscentibus.

N. Australia, Palmerston; *Rev. T. S. Lea*.

Folia pleraque 2·5–4 cm. long., 8–15 mm. lat. (raro 6 × 2 cm.), in sicco viridia; petioli 3–10 mm. long. Pedicelli 5–25 mm. long., nonnunquam adusque 4 cm. Sepala tandem reflexa, 4–5 mm. long. Filamenta gracillima, 2–3·5 mm. long.; antheræ 3–3·5 mm. long. Ovarium 3 × 4 mm. Capsula subtiliter velutina, 10 mm. long., sursum circa 15 mm. lat.; alæ capsulæ æqualitæ, summum 5 mm. lat. Semina nigra nitentia, 2 mm. long.

A curious plant more like *Dodonæa* than *Distichostemon*, but the calyx and the numerous stamens must keep it out of the former genus. The anthers on comparatively long filaments is a character neither of *Dodonæa* nor of *Distichostemon*, and may perhaps indicate a distinct genus, if indeed all the species may not with more propriety be included in *Dodonæa*.

The material is not quite satisfactory, so that the precise number of stamens was not ascertained; but judging from the scars left upon the slightly elevated receptacle, there are some 20 of them—at least in most cases.

ANACARDIACEÆ.

EUROSCHINUS PARVIFOLIUS, sp. nov. *Ramulis* subteretibus subtiliter ferrugineis; *foliis* 2–3-jugis rhachi gracili ut petioluli ferruginea foliolis oblongo-ovatis apice sæpissime breviter cuspidulato-acuminatis basi obliquis

pergamaceis supra glabris subtus in axillis nervorum proximis pilosis; *paniculis* axillaribus terminalibusve foliis sæpius brevioribus ferrugineis; *floribus* pedicellis perbrevibus carnosis insidentibus; *calycis* lobis ovatis obtusis glabris; *petalis* ovato-oblongis obtusis calycem longe excedentibus; *filamentis* subulatis antheris circiter æquilongis; *ovario* subgloboso glabro in stylum crassum abeunte; *stylis* apice modo liberis.

Hab. Queensland, Cumberland Islands; *R. Brown*, dist. no. 5424.

Foliorum rhachis usque ad 4·5 cm. long. Foliola 3–4 cm. long., rarius adusque 5 cm., 1·2–2 cm. lat., in sicco brunnea, maxime inæquilatera, obscure venosa. Paniculæ circa 3·5 cm. long. Calyx totus 1·2 mm. long., hujus lobi 4 mm. Petala concava, 2·5 mm. long. Filamenta fere 1 mm. long.; antheræ oblongæ. Discus perspicuus, lobulatus. Ovarium 1·2 mm. diam. Stylus fere 1 mm. long.

The genus consists of some half-dozen species, most of which are New Caledonian. The above-described is the second Australian species, differing from *E. falcatus*, Hook. f. chiefly in the small leaflets pilose on the underside in the axils of the lower nerves, the short panicles, narrow petals, and large globular ovary.

R. Brown's dist. no. 5422 (*E. falcatus*, Hook. f. var. *angustifolius*, Benth.) has leaflets more like those of *E. parvifolius* than of the type, but its inflorescences are those of typical *E. falcatus*.

MYRTACEÆ.

Verticordia Fontanesii, DC., var. *brachyphylla*, Diels. This variety was founded on Pritzel 820, from the Avon district of West Australia: Drummond's 29 of the 3rd coll. is the same thing. Owing to its reduced leaves, short peduncles, and greatly divided calyx-lobes this looks different from the typical examples, but a series shows intermediates in all these respects. This is no doubt a very variable species.

V. Forrestiana, F. Muell. Fine specimens of this rare plant were presented a few years ago to the Museum by Miss De Pledge. So far as Miss De Pledge was able to ascertain, the plant grows exclusively on the sides of sandhills about 80 miles inland from the town of Onslow, never apparently descending to the surrounding flats. The colour of flowers varies from white through all shades of pink to a deep blackberry red, this being one of the few pink-flowered plants found in those parts, the prevailing colour being pale mauve. A photograph accompanied the material.

CALYTHRIX WICKHAMIANA, sp. nov. Copiose ramosa, glabra; *ramulis* tenuibus frequenter foliosis inferne crebro cicatriciferis; *foliis* pusillis primo

imbricatis lanceolatis acutis dorso acute carinatis glandulis perpaucis inspersis; *floribus* in axillis superioribus solitariis subsessilibus; *bracteolis* medium usque connatis obtusissimis; *calycis* tubo bracteolas facile superante superne anguste cylindrico cavoque dimidio inf. fusiformi lobis parvis orbicularibus sat longe aristatis; *petalis* lanceolatis acutiusculis stamina excedentibus; *staminibus* ultra 25; *stylo* inferne calyce incluso.

North Australia, Victoria River; *Bynoe*.

Folia 1-1.5 mm. long. Bracteolæ 4 mm., pedicelli 1 mm. long. Calyx in toto 8 mm. long.; pars libera 4 × 6 mm.; pars inf. juxta medium fere 1 mm. lat.; lobi 1.5 × 1.5 mm.; arista 7 mm. long. Petala 6 mm., filamenta 4 mm., stylus 8.5 mm. long.

This has the leaves of *C. conferta*, A. Cunn., but the narrow calyx-tube removes it from that and neighbouring species. The affinity is with *C. Oldfieldii*, Benth.

CALYTHRIX MITCHELLII, sp. nov. Fruticulus, copiose ramosus, glaber; *ramulis* ultimis satis intricatis bene foliosis; *foliis* parvulis subteretibus (dorso carinulatis) oblongis obtusis glandulis perpaucis obsitis; *floribus* subsessilibus ex axillis summis oriundis; *bracteolis* calyce multo brevioribus circa usque medium connatis obtusissimis; *calycis* tubo cylindrico superne cavo longitrosum striato lobis subrhombeis in aristam sese duplo excedentem extenuatis; *petalis* oblongo-lanceolatis stamina subæquantibus; *staminibus* circa 12?; *stylo* inferne calyce incluso usque ad placentam continuo.

Queensland, near Mt. Faraday; *Mitchell*, 394.

Folia 1.5 mm. long., in sicco griseo-viridia. Pedicelli ægre 1 mm. long. Calyx 6.5 mm. long., 6 mm. lat.; pars inf. 3 mm., pars sup. 3.5 mm. long.; lobi 2 mm., arista 4 mm. long. Petala 3.5 mm. long. Stamina summum circa 3 mm. long.

Near the Northern *C. microphylla*, A. Cunn., but larger in the foliage with obtuse not acute bracteoles, shorter calyx, and quite different petals and stamens. Under the date Oct. 9th, Mitchell ('Trop. Australia,' p. 345) alludes to this plant in the following words: "A small shrub grew on the rocks, a pretty little *Calythrix* near *C. microphylla*, A. Cunn. (from Port Essington and Melville Island); but the branches with their leaves are more stout and the bracts more obtuse. Sir W. Hooker supposes it to be a new species."

In the Kew herbarium this is written up as "*C. microphylla*, A. Cunn.," though left unnoticed in Fl. Austral. iii. 49. The foliage of the two is at once seen to be quite different.

C. megaphylla, F. Muell. N. Australia, Victoria River; *Bynoe*. Except for the slightly narrower leaves agrees well with the specimen of this at Kew.

CALYTHRIX INTERSTANS, sp. nov. Verisimiliter suffrutex, glaber, copiose ramosus; *ramulis* tenuibus inferne mox cicatricibus prominentibus foliorum mortuorum ornatis; *foliis* parvulis imbricatis lineari-lanceolatis apice albo-mucronulatis dorso acutiuscule carinatis necnon linea glandularum perpaucarum comparate magnarum indutis margine microscopice cartilagineo-ciliolatis coriaceis; *floribus* saltem in sicco dilute purpureis ex axillis hac atque illac ortis subsessilibus; *bracteolis* medium usque connatis breviter acuminatis dorso scabriusculis calycem circiter semiæquantibus; *calycis* tubo satis elongato infundibulari superne cavo lobis late ovatis ciliolatis in aristam quam sese longiorem extenuatis; *petalis* oblongo-spathulatis acutis calycis lobos paullum excedentibus; *staminibus* circa 20; *stylo* inferne calyce incluso.

N.W. coast; *De Bouley*.

Folia 1·5–2 mm. long., in sicco griseo-viridia. Bracteolæ 5·5 mm., pedicelli 1 mm. long. Ovarium 4·5 mm. long., inferne 1 mm., apice 1·5 mm. lat. Calycis pars libera 2·5 mm. long., fere 2 mm. lat.; lobi 2 mm., horum arista 6 mm. long. Petala prope basin 1·5 mm., superne ægre 3 mm. lat. Stylus 12 mm. long.

To be inserted between *C. conferta*, A. Cunn. and *C. arborescens*, F. Muell., with the foliage of *conferta* but, among other features, an entirely diverse calyx-tube.

MICROMYRTUS PELTIGERA, sp. nov. Copiose ramosa, glabra; *ramulis* tenuibus omnimodo foliosis albis; *foliis* pusillis cauli arcte appressis orbicularibus vel suborbicularibus carnosis glandulis perpaucis prominulis ornatis primo imbricatis subinde paribus inter sese sat distantibus; *floribus* in axillis superioribus sessilibus; *calycis* tubo breviter campanulato obscure 5-costato subevanide foveolato lobis subreniformibus tubo brevioribus; *petalis* obovatis margine leviter undulatis quam calycis lobi duplo longioribus; *staminibus* 10 subglobularibus poris dehiscentibus; *ovulis* 5–7 placéntæ crassiusculæ apicali affixis.

Coolgardie district; *Webster*.

Folia 1 mm. long., rarius 1·5 mm. attingentia, in sicco griseo-viridia. Bracteolæ caducæ. Calycis tubus 1·5 mm. long., superne totidem diam.; lobi 0·8 × 1·5 mm. Petala 1·5 mm. long. Stigma 1 mm. long.

This is very close to *Micromyrtus rosea*, comb. nov. (*Thryptomene rosea*, E. Pritz.), but a close scrutiny of its curious little shield-like leaves will at once show it to be different. There are also floral discrepancies.

Baeckea ramosissima, A. Cunn., in Field's N. S. Wales, p. 349 (1825), is not noticed in the 'Flora Australiensis'; it is founded on Cunningham's No. 5 of the 1822 coll., and comes from the Blue Mountains. In every way conspecific with *B. diffusa*, Sieb. in DC. Prod. iii. 230 (1828), Cunningham's name must take priority over Sieber's.

LEPTOSPERMUM (§ *Euleptospermum*) MAXWELLII, sp. nov. Verisimiliter frutex; ramulis foliosis ultimis brevissimis primo microscopice sericeis cito glabrescentibus; foliis parvis oblanceolatis apice obtusissimis ipso obscure mucronatis basi in petiolum brevissimum angustatis coriaceis glabris utrobique glandulis leviter eminentibus crebro inspersis; floribus 1-2 sub apice ramulorum ultimorum plane pedicellatis; bracteolis fugaceis; calycis tubo campanulato crassiusculo ruguloso glabro vel potius obscure pruinoso lobis triangulari-deltaideis obtusiusculis ciliolatis quam tubus paululum brevioribus; petalis breviter unguiculatis suborbicularibus calycis lobis longioribus; staminibus circa 15; ovario 5-loculari; ovulis quove in loculo ∞ .

W. Australia, Fitzgerald River; Maxwell, 202.

Folia pleraque 4-7 mm. long., apicem versus 2-3 mm. lat., obscure trinervia, in sicco griseo-viridia. Pedicelli circa 3.5 mm. long. Calycis tubus 2 mm. long., apice totidem lat.; lobi 1 mm. long. Petala vix 3 mm. diam. Capsula ignota.

In several respects remarkably like the Tasmanian, *L. rupestre*, Hook. f., but more slender in habit and with smaller pedicellate flowers having somewhat different calyx-lobes.

LEPTOSPERMUM (§ *Euleptospermum*) FASTIGIATUM, sp. nov. Ramulis strictis etsi gracilibus foliosis tuberculis parvis obsitis glabris; foliis parvis ovato-oblongis apice obtusissimis ipso mucronatis basi in petiolum brevissimum cuneatim angustatis trinerviis coriaceis primo subtiliter albo-sericeis cito glabris; floribus axillaribus subsessilibus pedicellis basi bracteas paucas minutas ovatas fulcentibus; calyce campanulato in longitudinem costato appresse albo-sericeo lobis deltaideis acutis tubo brevioribus; petalis suborbicularibus calycis lobos manifeste excedentibus; staminibus circa 28; ovario 3-loculari ovulis quove in loculo ∞ ; stylo brevi stigmate parvo peltato terminato.—*L. Roei*, Diels & Pritz. in Engl. Bot. Jahrb. xxxv. (1904) 640, non Benth.

Coolgardie Goldfield in open sandy places; Pritzel, 844.

Folia 5-9 mm. long., summum 3 mm. lat., in sicco pallide viridia. Bracteæ mox evanidæ, circa .5 mm. long. Pedicellus 1 mm. long. Calycis pars adnata 1.5 mm., pars libera 1 mm. long.; lobi 1 mm. long. Petala alba, 2.5 mm. diam. Stylus .75 mm. long.

To this belong specimens collected by Webster in the Coolgardie district, as also Thiselton-Dyer, 38, from near Dedari (this last in the Kew Herb.). The Kew material has been assigned to *L. myrtifolium*, Sieb., an East Australian species with 5-celled ovary.

L. Roei, Benth., has larger flowers with a villous calyx; also conspicuous scarious bracts.

LEPTOSPERMOPSIS, *Myrtacearum* e tribu *Leptospermearum*, gen. nov.

Calycis tubus campanulatus, triente sup. ab ovario liber; lobi 5, membranacei, imbricati sed citissime aperti. *Petala* 5, calycis lobos excedentia, patentia. *Stamina* 5, petalis stricte opposita; filamenta brevina, inflexa; antheræ versatiles loculis in longitudinem dehiscentibus. *Ovarium* inferum, 5-loculare; ovulis quoque in loculo pluribus (circa 16) biserialibus. *Stylus* brevis, crassiusculus, foramini ad apicem ovarii insertus. *Stigma* capitatum. —Verisimiliter frutex, glaber. *Folia* alterna, parva. *Flores* axillares, pedicellati, pedicellis basi bracteis minutis stipatis.

LEPTOSPERMOPSIS MYRTIFOLIA, sp. unica. (Pl. 11. B.) *Ramulis* sat tenuibus aliquanto anfractuosius ramulos breves foliosos floriferosque satis approximatos emittentibus; *foliis* subsessilibus obovatis obtusissimis basi angustatis coriaceis trinerviis (nervis lateralibus sæpe maxime inconspicuis) coriaceis; *floribus* pedicellis crassiusculis calycem facile excedentibus suffultis; *calycis* tubo striato minutissime sparsissimeque puberulo quam lobi deltoidei acutiusculi paullo longiore; *petalis* orbicularibus; *filamentis* basi dilatatis; *stylo* incluso.

S.W. Australia; *Maxwell*.

Folia 4-5 mm. long., prope apicem 2 mm. lat., pag. inf. aliquando perspicue trinervia, pag. sup. plerumque enervosa, utrinque glandulis parvis fuscis crebro inspersa. *Pedicelli* ipso sub flore leviter incrassati, circa 4 mm. long.; *bracteæ* 6 mm. long. *Calycis* tubus 2 mm. long. (pars libera 6 mm.); lobi 1 mm. long. *Petala* fere 3.5 mm. diam. *Filamenta* 1 mm., antheræ 2 mm., *stylus* 1 mm. long.

The number and arrangement of the stamens is so important a feature among the myrtaceous genera peculiar to Australia, or almost so, that no apology is needed for adopting the step here taken of describing this as the type of a new genus, although it differs from *Leptospermum*, the species of which in general appearance it closely resembles, only in the andrœcium.

The characters of the genera of alternate-leaved *Leptospermæ* may be shown as follows:—

Flores capitulati. Ovuli in loculis pauca	<i>Agonis</i> .
Flores haud capitulati.	
<i>Stamina</i> 10-30. Ovula in loculis indefinita (raro 4-8)	<i>Leptospermum</i> .
<i>Stamina</i> 5, petalis opposita. Ovula in loculis indefinita	<i>Leptospermopsis</i> .

Kunzea ericocalyx, F. Muell. ex descript. On the Ranges near Middle Mount Barren; *Maxwell*, 137. There is no specimen of this at Kew. Bentham saw only a small fragment from Baron Mueller's herbarium.

KUNZEA (§ *Eukunzea*) AFFINIS, sp. nov. *Innovationibus* albo-sericeis citissime glabrescentibus; *ramulis* ultimis brevibus omnimodo vel superne

solum foliosis; *foliis* subsessilibus linearibus obtusis subteretibus (pag. sup. appianatis) crassiusculis sat perspicue glandulosis; *floribus* subsessilibus 2- vel 3-nis (anne semper?) ad apicem ramulorum sitis; *bracteis* parvulis calyci multo brevioribus ovatis obtusissimis vel obtusis scariosis; *calycis* tubo campanulato 5-costato quam lobi suborbiculares longiore; *petalis* suborbicularibus late breviterque unguiculatis; *staminibus* biserialibus; *ovario* 5-loculari ovulis quove in loculo 8; *stylo* exserto.

Arid plains, Gardner and Fitzgerald Rivers; *Maxwell*, 211.

Folia 4-6 mm. long., .5-8 mm. lat.; petioli summum vix 1 mm. long. Bracteae 1-2 mm. long., pedicelli .5 mm. Calycis pars adnata 1.5 mm., pars libera 1 mm., lobi 1 mm. long. Petala rosea, 2.5-3 mm. diam. Filamenta circa 3 mm. long. Stylus crassiusculus 4.5 mm. long.

At first sight and without dissection this might be taken for *K. pauciflora*, Schauer, of which it has the foliage and general appearance. Dissection shows, however, the following peculiarities: bracts much shorter than those of *pauciflora* and a shorter campanulate (not ovoid) calyx with quite different lobes. The leaves are somewhat stouter than those of *pauciflora*, and the flowers a little smaller. It may be added that although Bentham says the flowers of the older species are sessile, those examined had pedicels of more than 1 mm. in length, and a pedicel is obviously necessary to support the bracts.

KUNZEA (§ *Eukunzea*) SPICATA, sp. nov. *Innovationibus* microscopice sericeis cito glabris; *ramulis* ultimis folia primo conferta deinde sparsa fulcientibus; *foliis* parvis late obovatis obtusissimis crassiusculo-coriaceis cito glabris petiolo brevi latoque insidentibus; *floribus* sessilibus in spicas breves ad vel juxta ramulorum partem intermedium sitas ordinatis; *calycis* tubo subhemisphaerico crassiusculo levi vel fere levi quam lobi oblongo-ovati obtusi vel obtusissimi paullulum longiore; *petalis* suborbicularibus late breviterque unguiculatis; *ovario* 5-loculari loculis circa 5-ovulatis.

West Mt. Barren and Fitzgerald River; *Maxwell*.

Folia usque ad 3×2.5 mm., plerumque vero paullo minora, pag. utraque perspicue glandulifera, in sicco saepe longitrorsum rugulosa; petiolus .5 mm. long. Spicae florentes summum 12×9 mm. Calycis tubus 2.5 mm. long. (pars inf. 1 mm. pars libera 1.5 mm.); lobi 1.5 mm. long. Petala rosea, 2 mm. diam. Filamenta verisimiliter biserialia, 2.5-3 mm. long. Stylus fere 5 mm. long.

Evidently very near *K. jucunda*, Diels, of which there is no specimen in this country. *K. jucunda* is described as having inflorescences of 2, 3, or 4 flowers at the top of the branchlets instead of the *Melaleuca* like interpolated inflorescences of the plant under notice; moreover, its leaves are obovate-elliptic or suborbicular, the campanulate calyx is 10-nerved, and the cells of the ovary (number not stated) have 6-8 ovules.

MELALEUCA (Series *Decussatæ*) *WEBSTERI*, sp. nov. Fruticosa, glabra; *ramulis* ultimis crebro foliosis sat tenuibus, *foliis* oppositis (nonnunquam suboppositis) subsessilibus oblongo-lanceolatis deorsum ascendentibus sursum recurvis apice pungenti-acuminatis dorso convexis coriaceis; *florum* fasciculis subglobosis plerumque ex ramis jam defoliatis oriundis paucifloris; *calycis* campanulati coriacei lobis late deltoideis obtusis quam tubus plane brevioribus; *petalis* late ovatis obtusissimis concavis verisimiliter albis; *staminum* phalangibus ex ungue petala excedente constantibus additis antheris 12-20 filamentis quam unguis brevioribus insidentibus; *ovario* seminifero; *stylo* crassiusculo staminum phalanges leviter superante; *ovulis* pro loculo pluribus.

Coolgardie district; *Webster*. [Also at Kew, Dedari; *Thiselton-Dyer*, 40; Cowcowing; *Max Koch*, 1003.]

Folia plerumque 6-10 mm. long., 2 mm. lat., in sicco viridi-brunnea, dorso glandulis prominentibus crebro induta. Ovarium vix 2 mm. long. Calycis liberi pars indivisa fere 1 mm., lobi 1 mm. long. Petala 2.5 mm. long., vix totidem lat. Staminum phalangum unguis circa 4 mm. long.; filamenta 2 mm. long. vel minus; antheræ .5 mm. long. Stylus 7 mm. long.

The Kew specimens alluded to above have been placed respectively with *M. eleutherostachya*, F. Muell., and *M. lateriflora* var. *acutifolia*, Benth.; but both these have alternate leaves, an important feature in the genus. Although much like the last named in habit and flower, the foliage, irrespective of its arrangement, is seen without difficulty to be dissimilar.

MELALEUCA (Series *Laterales*) *GRAMINEA*, sp. nov. *Innovationibus* indumento subtili albo-sericeo vestitis; *ramulis* cito glabris foliosis tenuibus cortice dilute brunneo obductis; *foliis* alternis sessilibus linearibus apice pungenti-mucronatis 1-3-nerviis nervis sæpe obscuris necnon lateralibus evanidis primo albo-sericeis mox glabrescentibus; *floribus* in glomerulos axillares subsessiles plurifloros sphaeroideos vel subsphaeroideos ordinatis rhachi sericea fultis; *calycis* tubo campanulato sericeo quam lobi abbreviati rotundati longiore; *petalis* parvis suborbicularibus; *staminum* phalangum ungue petalis æquilongo filamentis 7-9; *ovario* fere omnino supero; *stylo* crasso andræcium breviter superante; *ovulis* quove in loculo paucis placentæ brevi basali affixis.

N.W. Australia; *De Bouley*.

Ramuli sat intricati. Folia pleraque 4-6 cm. long., 2-3 mm. lat., in sicco griseolo-viridia. Glomeruli florescentes 8 mm. diam. Pedunculus sericeus, 1 mm. long. vel paullulum ultra. Calycis tubus 1.25 × 1.5 mm.; lobi modo .5 mm. long. Petala longit. 1 mm. paullulum excedentia. Filamenta libera 1.5-2.5 mm long. Ovarium apice sericeum. Stylus 3.5 mm. long.

Evidently allied to *M. acacioides*, F. Muell., which has broader, obtuse leaves, a nearly globular calyx, longer staminal phalanges of which the claw is much longer than the petals, while the filaments attached to each are only 5-7 in number.

MELALEUCA (Series *Spiciflora*) *ARENICOLA*, sp. nov. Verisimiliter frutex, crebro ramosus, glaber; *ramulis* ultimis tenuibus foliosis; *foliis* parvis alternis subsessilibus oblongis apice mucronatis basi obtusis facie sæpissime concavis crassiusculis; *floribus* in spicas axillares subglobosas oliganthas digestis; *calycis* subglobosi coriacei lobis abbreviatis deltoideis obtusis; *petalis* ovatis obtusissimis concavis; *staminum* phalangum ungue petala subæquante filamentis circa 10-12; *ovario* omnino infero; *stylo* crassiusculo ex staminum phalangibus haud eminente; *ovulis* plurimis; *fructu* parvo subgloboso ore nudo.

West Australia, Avon district, in sandy places; *Pritzel*, 825.

Folia plerumque 4-5 cm. long., 1 mm. vel paullulum ultra lat., in sicco viridia. Spicæ plerumque circa 7 mm. long. Calyx basi lata rhachi insertus, in toto (lobis 3 mm. long. inclusis) 2 mm. long. Petala 2 mm. long. Stamina unguis 2.25 mm. long.; filamenta summum 3 mm. long.; antheræ .35 mm. long. Stylus 5.5 mm. long. Fructus 2.5 mm. diam.

This has been listed (*Engl. Jahrb.* xxxv. 427) as *M. laxiflora*, Turcz. (*M. crassifolia*, Benth. of *Fl. Austral.*), undoubtedly its affinity. The small narrow leaves, short spikes, small crowded flowers, and the reduced and relatively narrow fruits are the chief features of this species.

Melaleuca cordata, Benth., *Fl. Austral.* iii. 149 (1866). Turczaninow had previously described this, curiously enough under the same trivial, in *Bull. Acad. Imp. Sc. Pétersbourg*, x. 339 (1852). This overlooked memoir contains no fewer than 77 descriptions belonging for the most part to Drummond's 5th set.

CALOTHAMNUS VALIDUS, sp. nov. (Pl. 11. C.) *Ramulis* validis inferne cicatricibus orbicularibus sparsis onustis superne foliosis pubescentibus subinde glabrescentibus; *foliis* approximatis linearibus teretibus apice pungentibus rigidis crassiusculis juvenilibus microscopice fulvo-sericeis sed cito glabrescentibus; *floribus* 4-meris in spicas abbreviatas paucifloras pubescentes digestis; *calyce* rhachi nequaquam immerso breviter campanulato sparsim minutissime sericeo lobis oblongo-obovatis obtusissimis tubo parum brevioribus marginibus angustis decoloribus; *petalis* —; *staminum* fasciculis 4 omnibus inter sese fere æqualibus quoque ligulam late linearem longe exsertam filamenta circa 15 fulcientem ostendenti; *ovario* 3-loculari; *stylo* crassiusculo andrœcio multo brevioris; *fructu* ovoideo basi concavo calycis lobis 2 persistentibus coronato lobis 2 omnino evanidis.

W. Australia, in a rocky creek near West Mt. Barren; *Maxwell*.

Folia pleraque 2-2.5 cm. long., 1 mm. diam. vel paullulum minus, in sicco griseo-viridia necnon longitrorsum rimulosa. Calycis valde coriacei tubus 5 × 5.5 mm.; lobi 4 mm. long. Stamina fasciculi circa 2.5 cm. long.; horum unguis fere 2 cm. long.; antheræ lineari-oblongæ, 2-2.5 mm. long.

Stylus vix 1.5 cm. long. Fructus cinerei, 13 mm. long., 10 mm. diam., loborum 2 persistentum apicibus contiguus.

Affinity clearly with *C. quadrifidus*, Br., and nearest with the terete forms of that species. It is best distinguished by the larger flowers with the calyx-lobes almost as long as the tube, as also by the much larger fruits having the persistent calyx-lobes bent over so as to meet in the middle line, instead of leaving a gap at the top of the fruit.

EUGENIA (§ *Syzygium*) ESSINGTONIANA, sp. nov. Planta glabra; ramulis subteretibus cortice brunneo obductis crebro foliosis; foliis obovatis vel obovato-oblongis apice late rotundatis basi in petiolum brevem cuneatim angustatis pergamaceis pag. sup. in sicco griseis pag. inf. brunneis; floribus parvis in paniculam pedunculatam laxè trichotomam foliis circiter æquilongam dispositis; pedicellis calycem circa æquantibus (florum centralium vero brevioribus); calyce turbinato ore undulato; petalis parvis; staminibus numerosis filamentis brevibus crassiusculis antheris subglobosis loculis parallelis dehiscentibus; stylo incluso.—*E. Smithii*, Benth., ex parte, non Poir.

Port Essington; *Armstrong*.

Folia plerumque 6-9 cm. long., 3.5-5 cm. lat., opaca, punctis translucentibus haud visis; costa lateralis marginem appropinquans; costæ laterales utrinque circa 40, parum prominulæ; petioli crassiusculi; fusci, 5 mm. long. Panicula 6-7 × 5-6 cm.; hujus pedunculus 2.5-3 cm. long. Pedicelli 2-3 mm., florum centralium 1 mm. long. Ovarium 1 mm. long. calycis pars libera totidem. Petalorum calyptra 2 mm. diam. Filamenta circa 1 mm. long., antheræ 2 mm. Stylus filiformis, 1 mm. long.

Bentham (Fl. Austral. iii. 283) referred this to *E. Smithii*, Poir., an East Australian species, although it is entirely different in foliage and has not the divaricate anthers he notes as peculiar to that species. It is nearer *E. minutiflora*, F. Muell., described unfortunately without measurements; the obovate or elliptic-cuneate leaves of this are said to be paler below than above, the reverse of what is seen in the case of *E. essingtoniana*, where the underside brown contrasts markedly with the pale grey of the upper face. Moreover, the flowers have very short pedicels; while the statement "fruit rather large, depressed globular," although the specimen of *E. essingtoniana* is in flower only, seems to indicate a difference in the ovary and the fruit.

E. suborbicularis, Benth. This is said by Bentham (*l.c.* 285) to occur only in Queensland, and Mueller (2nd Census) follows him, although Mueller had previously given North Australian localities (Frag. ix. 143). Bentham cites A. Cunningham as having collected this plant on the "N.E. Coast," but Cunningham's material (3rd voy., No. 68) was obtained on the shores of South Goulburn Island. The Banks and Solander specimens Bentham

referred to *E. grandis*, Wight, may be noted as really belonging to his *E. suborbicularis*.

E. Armstrongii, Benth. A. Cunningham found this very rare plant (3rd voy., No. 274) at Hunter's River, York Sound (Bentham merely says "N. Coast"). A peculiar feature of the species is that the leaves are often subopposite.

E. Banksii, Britt. & S. Moore, founded on Endeavour River specimens of Banks and Solander, has turned up among Allan Cunningham's plants (3rd voy., No. 67). The locality is given as "very shaded situations in dark woods about the summit of Mount Cook."

MOLLUGINACEÆ.

TRIANTHEMA MAIDENII, sp. nov. *Ramis* procumbentibus ramulos crebro foliosis intervallis brevibus gignentibus uti ramuli foliaque scabriuscule pubescentibus tandem glabrescentibus; *foliis* sessilibus lineari-oblongis vel anguste lineari-oblongatis obtusis basi petioliformi-angustatis crassiusculis punctis translucetibus perspicuis pag. utraque gaudientibus; *floribus* solitariis axillaribus pedicellis scabriuscule puberulis quam folia brevioribus insidentibus; bracteis parvulis linearibus; *calycis* scabriuscule pubescentis tubo breviter campanulato lobis ovato-oblongis obtusis quam tubus longioribus; *staminibus* 10-12 margine disci lati irregulariter insertis; *ovario* 2-loculari ovulis quove in loculo 1 placentæ septo adnatæ affixis; *stylis* 2 crassiusculis.

South Australia, Port Lincoln; *J. H. Maiden*. Ibid., in a hedge by the wayside; *Rev. T. S. Lea*.

Folia pleraque 1.5-2 cm. long., 3-4 mm. lat., exstant vero minora majoraque, saltem in sicco grisea. Pedunculi 5-12 mm. long., bracteæ circa 1.5 mm. Flores flavi. Calycis tubus 1.5 mm., lobi 2.5 mm. long. Filamenta 1 mm. long.; antheræ versatiles, filamentis æquilongæ. Ovarium ovoideum, apice truncatum, 1.25 mm. long., scabriuscule puberulum. Styli 1 mm. long. Capsula in calyce persistenti inclusa, membranacea, 2-loculare, 4 mm. long. Semina diam. 1 mm. paullulum excedentia.

Known on sight from *T. decandra*, DC. by the narrow leaves and the solitary pedicellate flowers.

LOGANIACEÆ.

Mitrasacme is a genus of Loganiaceæ with 28 species according to the 'Index Kewensis,' of which nearly all are confined to Australia, only four being found outside the island continent, from India and South China through Malaya to New Caledonia, and one only of these (*M. setosa*, Hance),

a Cambodian plant, not reaching Australia*. It is interesting to note that our genus is closely related to the also almost exclusively Australian *Logania*, the two genera contributing more than 90 per cent. of the Natural Order as represented in Australia. Since vol. iv. of the 'Flora Australiensis' appeared in 1869, only three Australian species seem to have been described, viz. *M. palustris*, Fitzg. and two others by the same author; to these may now be added the two which follow.

MITRASACME (§ *Mitragyne*) **LATIFLORA**, sp. nov. Caule pro genere elato gracili sparsim ramoso (ramis ascendentibus) subtereti glabro; *foliis* (radicalibus carentibus) usque ad squamas caulinas minimas ovatas vel subulatas obtusas vel acutas reductis; *floribus* mediocribus in cymam umbelliformem laxè paucifloram digestis; *pedicellis* quam flores longioribus filiformibus uti calyx corollaque glabris; *calycis* campanulati paullo ultra medium indivisi segmentis triangulari-deltaideis obtuse acutis; *corollæ* triente sup. solutæ tubo calycem plus quam duplo excedente late cylindrico faucibus nudo lobis late ovatis obtusis vel obtusissimis; *staminibus* tubo prope basin insertis antheris inclusis; *ovario* ovoideo; *stilo* incluso brevissime bifido.

N. Australia, Palmerston; *Rev. T. S. Lea*.

Planta circa bispithamea. Folia 1-2 mm. long., basi connata. Umbellæ sæpius trifloræ, basi foliorum pari stipatæ. Pedicelli 1-2 cm. long. Calyx circa 3 mm. long.; tubus 1.75 mm., lobi 1.5 mm. long. Corolla alba; tubus 7 × 3 mm.; lobi 3 mm. long. Filamenta circa 4 mm. long; antheræ sagittatæ, obtusæ, 1 mm. long. Ovarium 1.75 mm. long.; stylus dimidio inf. fissus, fere 4 mm. long. Capsula subglobosa, pallida, nitidula, 2.5 mm. diam.

Nearest *M. exserta*, F. Muell., but without, unless they have fallen, the radical leaves, and diverse in calyx and corolla and insertion of stamens.

MITRASACME (§ *Mitragyne*) **NUMMULARIA**, sp. nov. (Pl. 12. B.) *Herba* annua, pusilla, a basi ramulosa microscopice puberula; *ramulis* filiformibus omnimodo foliosis; *foliis* sessilibus orbiculatis vel saltem late ovatis apice rotundatis vel subito obtuse acutis basi breviter petioliformi-angustatis necnon per paria inter se connatis; *floribus* in axillis solitariis pedunculatis; *calycis* turbinati medium usque divisi segmentis 4 rotundatis acutis apiceque divaricatis; *corollæ* tubo lato calyci circiter æquilongo intus glabro lobis suborbicularibus tubo paullo brevioribus; *staminibus* inclusis corollæ juxta medium tubum insertis filamentis quam antheræ paullulum brevioribus; *ovario* ovoideo in stylum brevem pinguem inferne fissum desinente; stigmatè capitato.

Regent's River, N.W. Coast; *A. Cunningham*, 166 (of 4th voyage).

* From this list *M. lutea*, Lév. (Fedde Rep. iv. p. 331) is excluded, the diagnosis, as is often the case with this writer, being too fragmentary to be of any service.

Herba circa 2 cm. alt. radice subsimplici tenerrima prædita. Folia pleraque 3·5 × 2·4 mm., obscure trinervia, in sicco viridia. Pedunculi 1·5–5 mm. vel etiam fere usque 10 mm. long. Calyx longit. 2 mm. leviter excedens; hujus lobi 1·5 mm. lat. Corollæ tubus 2·5 mm. long.; lobi 1·5 mm. Filamenta 35 mm. long.; antheræ ovoideæ, obtusissimæ, 5 mm. long. Ovarium 1 mm., stylus 3 mm. long.

Affinity with *M. prolifera*, Br., but at once distinguished by the foliage.

This yields a rare instance of a plant of Allan Cunningham's being unrepresented at Kew in the Heward donation; at least success has not attended a search for it there, and it could not have escaped Bentham's eye had the author of 'Flora Australiensis' met with it.

VERBENACEÆ.

Among specially interesting groups of plants native to Australia is the tribe Cloantheæ of the Order Verbenaceæ. Although there is no doubt as to the affinities of this group, the external appearance, usually more or less densely tomentose or woolly, is so peculiar that a botanist, even of some experience, might be forgiven for failure correctly to place its species in the Natural System. Thanks to the good offices of Professor Ewart of Melbourne, the group in question is now fully represented at the Museum except for two or three items. The only unnamed specimen fit to describe is

DICRASTYLES THOMASIÆ, sp. nov. Suffrutex?; ramis saltem sursum bene foliosis dense flavo-villoso-tomentosis; foliis sessilibus oblongis obtusis basi rotundatis planis margine crenulatis rugosis utrobique pariter albo-villosulis; cymis glomerulum densum globosum referentibus; pedicellis floribus certe brevioribus uti bracteæ maxima pro parte parvulæ necnon calyces dense albo-lanatis; calycis segmentis linearibus obtusis fere basin usque inter sese liberis; corollæ paullo ultra medium divisæ lobis ovato-oblongis obtusis; staminibus breviter exsertis; ovario ovoideo villosulo; stylo biramoso.

West Australia; *Miss Thomas*.

Folia 1·2–1·5 cm. long., 4–5 mm. lat. Florum glomerulus circa 2 cm. diam. Bracteæ perpaucæ exteriores circa 5 mm. long., ceteræ ± 2 mm. Pedicelli summum 1 mm. long., plerique etiam breviores. Calycis segmenta (indumento neglecto) 2 mm. long. Corollæ tubus 1 mm., lobi 1·25 mm. long. Filamentorum pars libera circa 1 mm. long.; antheræ ovoideæ, 75 mm. long. Ovarium fere 1 mm. Styli rami 5 mm. long.

The indumentum, flat, oblong leaves and densely headed flowers are the chief features of this species.

PROTEACEÆ.

GREVILLEA (§ *Eu-Grevillea*) EYREANA, sp. nov. Arbor, *ramulis* sat gracilibus subteretibus minute pubescentibus dein glabrescentibus; *foliis* teretibus pinnatisectis segmentis paucis plus minus divaricatis rigidis plerumque semel vel bis 2-3-chotomis ultimis pungenti-acuminatis microscopice puberulis glaucis; *floribus* pedicellatis in racemos plurifloros fulvo-pubescentes foliis circiter æquilongis digestis; *perianthio* extus fulvo-tomentoso basi dilatato segmentis mox solutis superne lineari-oblongis apice anguste ovatis obtusissimis; *toro* obliquo quam ovarium longiore crasso; *glandula* prominente semiannulari tori latere longiori affixa; *ovario* glabro; *stylo* crasso valde curvato minute puberulo; *stigmat*e laterali leviter conico.

South Australia, on sandhills in Lake Eyre district (lat. 27° 30'); *Capt. Sturt*.

Folia in toto 5-6 cm. long.; horum basis indivisa 2-2.5 cm. long.; segmenta in toto circa 3 cm. long., ultima $\pm$ 1.5 cm., omnia 1 mm. diam. Racemus circiter 5 cm. long. Pedicelli 5 mm. long. Perianthii basis indivisa 3×2.75 mm.; segmenta (inclusa parte apicali 2.5 mm.) 8 mm. long. Glandula fere 2 mm. lat. Tori latus alterum 3 mm., alterum 1.5 mm. long. Ovarium ovoideum 2 mm. long. Stylus 9 mm. long. Stigma 1.5×1.25 mm.

The affinity of this appears to be with *G. Thelemanniana*, Endl., but with too many differential points to require notice. Though without fruit, there can, it would seem, be no doubt as to the genus, since all attempts to find an affinity for it in *Hakea* have met with failure.

G. (§ *Eu-Grevillea*) RUBICUNDA, sp. nov. Fruticosa?; *ramis* sat tenuibus quadrangularibus distanter foliosis subtiliter sericeis deinde glabris; *foliis* subsessilibus decurrentibus alte pinnatisectis segmentis 7-14 linearibus apice nigro-mucronatis margine arcte revolutis coriaceis, pag. inf. uti rhachis teres sat gracilis subtiliter sericeis pag. sup. glabris; *racemis* simplicibus paniculatisve pluri- ac densifloris tomento denso rubiginoso obductis; *floribus* sessilibus; *perianthii* rubiginose villosi-tomentosi tubo brevi ovoideo segmentis cito solutis superne oblongis apice ovoideis; *toro* recto inconspicuo; *glandula* parva alte lobata; *ovario* sessili villosi; *stylo* valde curvato ipso sub *stigmat*e dilatato villosi; *stigmat*e subcirculari levissime convexo.

N. Australia, "Westward of the Gulf [Carpentaria], table-land of the South Alligator"; *Leichardt*.

Foliorum rhachis plerumque 2-3.5 cm. long., 1-1.5 mm. diam., supra late canaliculata; segmenta 5-7 cm. long., 1.5 mm. lat., supra in sicco grisea. Racemi evoluti longit. circa 10 cm. attingentes. Perianthium 7 mm. long. Glandulæ lobi linguiformes, .5 mm. long. Ovarium 1 mm., stylus 7.5 mm. long. Stigma 1.75×1 mm.

The place of this very distinct species seems to be next *G. chrysodendron*, R. Br., which, among other distinctive features, has much larger- and longer-lobed leaves and pedicelled flowers, besides being without the rubiginous tomentum.

G. (§ *Calothyrsus*) *LEICHARDTII*, sp. nov. Verisimiliter fruticosa; *ramis* subteretibus crebro foliosis subtilissime sericeis; *foliis* subsessilibus ambitu late ovatis basi latissime truncatis margine utrinque 8-9-lobulatis lobis triangularibus uti folii apex acute mucronatis utrinque perspicue nervosis coriaceis pag. sup. minute pubescentibus pag. inf. appresse fulvo-sericeis; *floribus* secundis in racemos terminales folia facile excedentes plurifloros glabros digestis; *pedicellis* floribus brevioribus; *perianthii* glabri a basi gradatim leviterque amplificati segmentis linearibus apice obovatis; *toro* valde obliquo; *glandula* conspicua semiannulari bilobo; *ovario* stipiti satis elongato imposito glabro; *stylo* compresso sub stigmate laterali ovoideo haud incrassato.—*G. pungens*, Benth. Fl. Austral. v. p. 456 pro parte, non R. Br.

N. Australia, "Sandy scrubland west side of gulf" [Carpentaria]; *Leichardt*.

Folia pleraque 1.5 cm. long., prope basin totidem lat.; horum lobuli inter se inæquales, maxima pro parte 2-4 mm. long., rigidi; petioli 1-1.5 mm. long. Racemus basi nudus, usque ad 7 cm. long. Pedicelli graciles, 3 mm. long. Perianthium in toto 12 mm. long., hujus segmenta 6 mm. long. Glandula 1 mm. alt. Stipes 4.5 mm. long. Ovarium 1 mm., stylus 7 mm. long.

It is difficult to understand how Bentham could have regarded the plant here described as conspecific with *G. pungens*, R. Br., so different in foliage are the two. Brown's plant has leaves several times longer, deeply pinnatisect, and with long linear segments. The flowers of the two are very like, although *G. Leichardtii* has them somewhat larger and broader in the perianth, while its torus is more oblique. Gulliver's Maria Island plant in the Kew herbarium, also referred by Bentham to *G. pungens*, is conspecific with *Leichardt's*.

DRYANDRA (Series *Obrvallatæ*) *GILBERTII*, sp. nov. Fruticosa; *ramis* sat validis ramulos perbreves foliosos apice floriferos pubescentes deinde glabrescentes emittentibus; *foliis* breviter petiolatis rigide coriaceis ambitu oblanceolatis pinnatifidis lobis 7-12 patentibus triangularibus apice pungentibus paucis inferioribus gradatim imminutis supra glabris nitidisque subtus subtiliter tomentosis; *capitulis* ovoideis foliis arcte stipatis; *involucris* bracteis pluriseriatis lanceolatis (intimis lineari-lanceolatis linearibusve) paucis infimis interdum spinoso-acuminatis ceteris acutis omnibus dorso cinereo-vel fusco-tomentosis; *perianthio* glabro segmentis anguste linearibus fulvo-villosis apice glabris; *stylo* perianthium excedente inferne villosa alibi glabro; *stigmate* obtuso.

W. Australia; *Gilbert*, sine no.

Folia 2·5–5 cm. long., superne summum 1·5 cm. lat., sæpe vero angustiora ; lobi majores 6–8 mm. long. Involucra circa 16 × 10 mm. Bracteæ ext. ± 4 mm. long. ; intermediæ 6–9 mm., intimæ apice fuscae, 10–12 mm. long. Perianthii pars primum indivisa 6 mm. long. ; segmenta in toto 15 mm. long., pars apicalis anguste fusiformis, 3·5 mm. long. Ovarium 1·5 mm., stylus 22 mm., stigma 2 mm. long.

Undoubtedly conspecific with the above are specimens at Kew collected by Captain Dorrien Smith, one at the Pass in the Stirling Range east of Mt. Toolbrunup, the other on a journey between Bridgetown and Kojonup. These have been named "*Dryandra Purdieana*, Diels, ex descript." But careful scrutiny of the description shows that it relates to a plant with leaves double or almost double as long and broad and with considerably longer lateral lobes, also with heads having broadly ovate outer bracts, though no doubt this is the affinity of the new species.

EUPHORBIACEÆ.

EUPHORBIA (§ *Anisophyllum*) BOULEYI, sp. nov. Planta perennis, crebro ramosa ; ramis lignosis cicatricibus foliorum delapsorum signatis glabris ; ramulis tenuibus foliosis minutissime sericeis ; foliis parvulis oppositis subsessilibus late ovatis vel suborbicularibus basi aliquanto obliquis nonnunquam obscure cordulatis antrorsum minute denticulatis subcoriaceis utrobique uti involucra subtilissime sericeis ; stipulis maxime exiguis nisi obsoletis ; involucris parvis in axillis solitariis breviter pedunculatis primo cylindricoturbinalis postmodo campanulatis ; glandulis minutis orbicularibus integris vel 1–2-cuspidulatis crassiusculis verisimiliter albis vel saltem pallidissimis ; ovario triquetro minute sericeo ; stylis bipartitis ; capsula minute sericea.

N.W. Coast ; *De Bouley*.

Folia 2·5–6 mm. long., 2–5 mm. lat. ; petioli summum 1 mm. long. Involucra 1 mm. long. ; horum glandulæ 4 mm. diam. Ovarium fere vel usque ad 1 mm. ex involucro eminens, 1·5 mm. long. Styli rami 4 mm. long. Semina subevanide rugosa, dilute brunnea, 1 mm. long.

Differs from *E. australis*, Boiss. among other features in the entire absence of villous hairs, the small leaves and involucre, and the greatly reduced fleshy glands. It is nearer *E. Careyi*, F. Muell., of which it has the indumentum, but the leaves are not lanceolate-ovate nor acute, and the involucre and glands are smaller, nor was the narrow membrane surrounding the glands on the outside described for this species to be seen in the present case.

Beyeria cyanescens, Baill. An excellent specimen of this communicated from the Paris Museum, 1816. Grüning (Monogr. p. 74), who gives a poor figure of it, has seen material collected by Naumann on Dirk Hartog

Island, and as many of the Baudin Expedition plants were obtained there, that is most probably the source of the Paris material and not the Recherche Archipelago as Bentham queries (Fl. Austral. vi. p. 67), who, it may be added, never saw the plant.

Bertya oppositifolia, F. Muell. & O'Shanessy. A specimen from Moreton Bay (*Fraser*, 117) would seem to be referable here, though the leaves are longer and narrower than those of the only other Museum specimen, which is from Rockhampton but without the collector's name.

PHYLLANTHUS.

In Robert Brown's Australian herbarium are a considerable number of *Phyllanthus* sheets, for the most part undetermined hitherto at the Museum, and in much the same state at Kew, whither in 1876 a fine set was sent in accordance with the terms of the Bennett bequest. In spite of their having been gathered more than a century ago, several of Brown's plants prove on examination to be still undescribed, an eloquent indication this to the riches one may expect from a thorough examination of tropical Australia. In the immediately following pages this material is dealt with, advantage being taken to notice some rare though already known species of the genus forming part of it. A new species collected by Mr. G. Podenzana (North Queensland, 1891-3), and a Malayan one of the same collector, now first announced as Australian, come also under notice.

Forty-four species referred to six of the forty-four sections proposed by J. Müller for the genus are recognised by Bentham. Baron Mueller some years later (Sec. Cens. Austral. Pl.) added two more, of which one is endemic, and he subsequently described another. Besides these there is one for which Diels is sponsor (Engl. Bot. Jahrb. xxxv. (1904) p. 338), the *P. cuscutaeflorus* of the writer, and Fitzgerald's recently published *P. polycladus*. To these the eight following are to be added, making fifty-eight species in all, referable to seven, and if Baron Mueller's identification of a Queensland plant as *P. buxifolius*, Reinw. be correct, to eight sections.

With this comparative abundance of Australian *Phyllanthus* species may be compared the rich representation in New Caledonia, the home of many really handsome species of a genus consisting, for the most part, of plants the reverse of striking in their appearance. Many of these, one imagines, would repay cultivation on account of their beautiful foliage.

PHYLLANTHUS (§ *Synostemon*) BRUNONIS, sp. nov. Suffrutex dioicus; caule erecto spithameo (interdum altiore?) ramoso uti rami hispidulo-piloso tandem glabro; foliis brevipetiolatis ovatis vel ovato-oblongis obtusis obtusissimisve basi obtusis integris vel obscure denticulatis coriaceis margine

hispidulo-ciliatis necnon leviter revolutis ceteroquin glabris; *stipulis* vix longitudine petiolorum persistentibus linearibus ciliatis; *floribus* utriusque sexus in axillis solitariis pedunculis filiformibus sat longis insidentibus eglandulosis; *floribus* ♂ minutis sepalis inter se æqualibus liberis suborbicularibus hispidule ciliatis staminibus 3 filamentis in columnam brevem connatis antheris longitrorsum dehiscentibus; *floribus* ♀ masculis majoribus sepalis ovatis obtusis nisi obtusissimis hispidule ciliatis ovario depresso stylis basi distinctis alte bipartitis; *capsula* subglobosa late 3-sulcata glabra.

North Coast, Arnhem Bay; *R. Brown*, dist. no. 3611.

Folia magnitudine valde diversa, nunc $\pm$ 1 cm., nunc 3 cm. attingentia, in sicco lutescentia, pag. inf. pallida, pag. utraque optime reticulata; petioli 1–3 mm. long. Stipulæ pallidæ, 1–2 mm. long. Pedunculi 3–4 mm. long., ♂ glabri vel fere glabri ♀ hispidule pilosi. Sepala masc. 4 mm. long., columna staminea 2 mm. alt.; antheræ columnam stamineam paululum excedentes. Sepala fem. paulo ultra 1 mm. long., sub capsula usque ad 2.5 mm. aucta. Ovarium vix 1 mm. diam.; styli rami divergentes, 5 mm. long.

To be placed close to *P. ditassoides*, Muell. Arg.: a very distinct species on account of its foliage together with the flowers with broad hispidulous sepals.

PHYLLANTHUS *PODENZANÆ*, sp. nov. Suffrutex e rhizomate sat valido caules simplices ramososve emittente; *ramis* bene foliosis aliquanto debilibus angulosis superne compressis microscopice puberulis; *foliis* breviter petiolatis late ovatis vel suborbicularibus (ultimis ovato-oblongis) apice rotundatis ipso interdum mucronulatis basi rotundatis vel rotundato-truncatis nequaquam cordatis margine cartilagineis in sicco brunnescentibus firme membranaceis pag. inf. microscopice puberulis; *stipulis* lineari-lanceolatis acuminatis mox plus minus patentibus; *floribus* ♂ ignotis; *floribus* ♀ axillaribus solitariis pedunculatis; *sepalis* liberis erectis oblongis (uno anne semper? oblongo-ovato) obtusis dorso carinulatis membranaceis glabris; *glandulis* nullis; *ovario* ovoideo glabro; *stylis* basi leviter divergentibus integris.

Queensland, Cooktown; *Podenzana*.

Folia majora 2–3.5 × 1.5–2.5 cm., mediocria $\pm$ 15 × 13 mm., minima in ramis ulterioribus usque ad 6–10 × 4–5 mm. reducta; costæ laterales ut reticulum inconspicuæ; petioli 1–2.5 mm. long. Stipulæ dilute brunneæ, 1.5 mm. long. Pedunculi 3–4 mm. long., glabri. Sepala alba, ægre 5 mm. long. Ovarium 1 mm. long., basi totidem diam.; styli revoluti apice truncati, vix 1 mm. long.

This most probably belongs to § *Synostemon*, but in the absence of male flowers the point must remain undecided. At first sight it suggests *P. ditassoides*, Muell. Arg., but the indumentum is different, the brown-drying

leaves are not cordate, the glabrous sepals are somewhat longer and not coriaceous, the ovoid (not depressed-globular) ovary is glabrous, and the styles are simple and very slightly divergent.

P. Adami, Muell. Arg. N. Australia, Groote Eylandt; *R. Brown*, dist. no. 3608.

PHYLLANTHUS (§ *Synostemon*) *ARNHEMICUS*, sp. nov. Suffrutex dioicus fere trispithameus crebro ramosus glaber; *ramis* e collo sat robusto filiformibus distanter foliosis ramulos ascendentes graciles foventibus angulatis striatis; *foliis* parvis sessilibus linearibus obtusis acutisve; *stipulis* pusillis anguste linearibus mox delapsis; *floribus* pedunculatis glandulosis; *floribus* ♂ in fasciculos 2-3-flosos sæpissime ordinatis sepalis liberis patentibus obovato-oblongis obtusissimis staminibus 3 filamentis in columnam brevem sepalis brevioribus connatis antheris cohærentibus in longitudinem dehiscentibus; *floribus* ♀ quam masculi majoribus solitariis sepalis oblongis obtusis; *ovario* late obovoideo apice truncato glabro; *stylis* a basi divergentibus bipartitis ramis divaricatis; *capsula* hucusque vix matura ovoidea glabra.

N. Australia, Arnhem Bay; *R. Brown*, dist. no. 3597.

Folia longit. raro 10 mm. attingentia, sæpius 5-8 mm., summum 1 mm. lat. vel paullulum ultra. Flores ♂—sepala 4 mm. long., columna staminea 2.5 mm. alt., antheræ 2 mm. long. Flores ♀ 3 mm. diam., sepala ægre 1.5 mm. long., sub fructu 2 mm., ovarium 6 mm. long. superne 1 mm. lat., styli 6 mm. long. Capsula 3 × 3 mm.

Apparently nearest *P. Adami*, Muell. Arg., but with several discrepancies in the leaves and flowers.

PHYLLANTHUS (§ *Synostemon*) *LISSOCARPUS*, sp. nov. Suffrutex monoicus copiose ramosus glaber; *ramis* ascendentibus gracilibus satis crebro foliosis; *foliis* breviter petiolatis linearibus apice acute mucronulatis rigidiusculis; *stipulis* exiguis filiformibus erectis diutule persistentibus; *floribus* eglandulosis utriusque sexus breviter pedunculatis, ♂ sepalis patentibus obovato-oblongis obtusis, staminibus 3 filamentis in columnam connatis antheris omnino liberis loculis in longitudinem dehiscentibus; *florum* ♀ sepalis masculis similibus ovario turbinato apice truncato glabro; *stylis* abbreviatis distantibus pinguibus bifidis.

N. Australia, Groote Eylandt; *R. Brown*, dist. no. 3606.

Folia pleraque 6-12 mm. long. raro 2 mm. lat., sæpissime 5-1 mm. Stipulæ ægre 1 mm. long. Pedunculi ♂ 1.5 mm., ♀ vix totidem. Flores ♂ diam. 2 mm. paullulum excedentes. Columna staminea antheris parum longior, 5 mm. long. Ovarium 6.5 mm., styli 4 mm. long., illud apice 1 mm. diam.

Differs from *P. rhytidospermus*, F. Muell. in the narrow leaves, the small

erect stipules a marked difference from that species, the longer staminal column with quite free anthers, and the broader female perianth-segments.

PHYLLANTHUS (§ *Paraphyllanthus*) *EUTAXIOIDES*, sp. nov. Suffrutex monoicus?, parvus, glaber; *ramis* e collo sat robusto ascendentibus simplicibus vel subsimplicibus crebro foliosis; *foliis* subsessilibus laxè imbricatis lineari-oblongis obtusis subcoriaceis; *stipulis* fugaceis; *floribus* ♂ in axillis solitariis pedunculis gracilibus quam sese paullo longioribus suffultis; *sepalis* liberis ascendentibus oblongis obtusis marginibus albis; *glandulis* 6 globulosis perspicuis; *staminibus* 3 filamentis in columnam pinguem conferruminatis antheris columnæ vix æquilongis connatis in longitudinem dehiscens; *floribus* ♀ quam ♂ longius pedunculatis; *sepalis* quam illa fl. ♂ majoribus oblongis obtusis sub fructu solummodo obviis; *capsula* haud visa.

East Coast (Queensland?); *R. Brown*, dist. no. 3617.

Folia ± 1 cm. long., in sicco grisea, costa media conspicua percursa. Pedunculi ♂ circa 2·5 mm. long., sub flore paullulum incrassati. Sepala vix 2 mm. long. Columna staminea 5 mm. alt. et lat.; antheræ 4 mm. long. Pedunculi ♀ saltem sub fructu fere 1 cm. long. Sepala 3·5 mm. long. Capsula floris unci visi jam delapsa.

Near *P. maderaspatanus*, L., but the leaves and flowers are distinct in several particulars. The general appearance is much that of *Eutaxia myrtifolia*, R. Br.

PHYLLANTHUS PUSILLIFOLIUS, sp. nov. Suffrutex copiose ramosus, glaber; *ramis* divaricatis rigidis sparsim foliosis; *foliis* subsessilibus ramulis brevissimis insidentibus exiguis obovatis vel suborbicularibus obtusis vel obtusissimis; *stipulis* minimis haud persistentibus; *floribus* ♂ ignotis; *floribus* ♀ parvulis ex axillis solitatis ortis pedunculis filiformibus elongatis fultis; *sepalis* liberis æqualibus ovatis obtusissimis nervo medio conspicuo percursis; *glandulis* in discum 6-lobulatum concretis; *ovario* subgloboso glabro; *stylis* divaricatis alte bipartitis.

Queensland, Broad Sound; *R. Brown*, dist. no. 3601.

Folia 1·5–3 mm. long., 1·5–2 mm. lat., in sicco fusca. Pedunculi usque 10 mm. long., sæpius vero circa 7–8 mm. Flores 2 mm. diam. Sepala 1 × 6 mm. Ovarium 35 × 4 mm. Styli ægre 5 mm. long.

With its copious rigid branching and extremely small leaves, together with the gland-bearing flowers, this is very distinct from any known Australian species. In the absence of male flowers, however, the affinity cannot be stated, but the neighbourhood of *P. Mitchellii*, Benth. may be suggested for its true position.

PHYLLANTHUS (§ *Eu-Phyllanthus*) *EBORACENSIS*, sp. nov. Planta glabra, caule tenui lignescente inferne nudo superne ramulos filiformes foliosos

gerente; *foliis* subsessilibus ovatis apice rotundatis ipso microscopice mucronulatis basi obtusissimis membranaceis supra læte viridibus subtus glaucis; *stipulis* parvulis lineari-lanceolatis acuminatis scariosis brunneis diutule persistentibus; *floribus* ♂ solum visis exiguis in fasciculos paucifloros bracteis scariosis stipulis similibus stipatos digestis pedicellis brevibus filiformibus insidentibus; *sepalis* inter se liberis obovatis apice rotundatis; *glandulis* 6 bene evolutis ovatis obtusis; *staminibus* 3 filamentis brevissimis liberis antheris subglobosis transversim dehiscentibus.

Cape York; *Daemel*.

Caulis 26 cm. alt., uti ramuli rubro-brunneus. Folia summum 10 × 6·5 mm., pleraque ± 6 × 4·5 mm.; petioli summum vix 1 mm. long. Stipulae 75 mm. long. Pedicelli ægre 1 mm. long. Flores 1·25 mm. diam. Sepala 5 mm. long. Antheræ 2 mm. diam.

Nearest *P. simplex*, Retz., which is entirely different in foliage and has larger male flowers with larger glands and stamens, the latter with longer filaments.

PHYLLANTHUS (§ *Eu-Phyllanthus*) LEAL, sp. nov. Planta spithamea vel semispithamea omnimodo glabra; *caule* sinuoso-ascendente ramulos filiformes foliosos hac atque illac emittente; *foliis* subsessilibus oblongis vel anguste oblongo-obovatis obtusis vel obtusissimis basi obtusis membranaceis; *stipulis* lineari-lanceolatis acuminatis decoloribus diutule persistentibus; *floribus* in axillis plerumque solitariis vel binis breviter pedicellatis bracteis scariosis stipatis; *floribus* ♂ sepalis obovatis apice rotundatis uti sepala ♀ linea perspicua percursis glandulis pusillis subglobosis staminibus 3 filamentis in columnam brevem connatis antheris subglobosis connatis transversim dehiscentibus; *floribus* ♀ quam ♂ majoribus glandulis bene evolutis ovatis membranaceis ovario subgloboso trisulco stigmati ramis brevibus a basi divergentibus bifidis,

N. Australia, Palmerston; *Rev. T. S. Lea*.

Folia pleraque 12–17 mm. long., 4–6 mm. lat., in sicco griseo-viridia. Stipulae circa 1 mm. long. Pedicelli ♂ 5 mm. ♀ 1 mm. long., hi superne incrassati. Flores ♂ 1·2 mm. diam.; sepala 4 mm. long.; antheræ 0·15 mm. lat. Flores ♀ 2 mm. diam.; sepala ægre 1 mm. long.; ovarium 5 mm. diam. Capsula hucusque vix matura glabra, 2 mm. diam.

This is also near *P. simplex*, Retz. Among its peculiarities may be mentioned the broader leaves, the short pedicels, and the united filaments and anthers.

P. lamprophyllus, Muell. Arg. Queensland, Barrow River and Myola; *Podenzana*. Sandy Cape and Port Bowen; *Macgillivray*, 62. A note by Major Gage in the Kew Herbarium led to this identification. The Kew

specimen is incomplete, being without flowers, and this rendered certain naming impossible. As there are both ♂ and ♀ flowers on the Museum specimens, there is now no doubt that this Malayan species extends to Australia. It should be expected from North Australia too. It may be added that a new section (*Emblicastrum*) of the genus now makes its appearance in the Australian flora.

PETALOSTIGMA HUMILE, W. V. Fitzg. (ex descript.). N. Australia, Palmerston; *Rev. T. S. Lea*.

Female flowers not seen, but male specimens agree well with the recently published description in Journ. and Proc. R. Soc. W. Australia, iii. p. 62. Mr. Lea's note runs—"Shrub springing in burnt ground, flowers yellow."

New to the Northern territory, though the original locality, King River, is not far from its western border.

TRITAXIS AUSTRALIENSIS, sp. nov. Planta fere omnino glabra; *ramulis* foliosis cortice brunneo-griseolo lenticellifero obductis; *foliis* petiolatis late ellipticis apice basique obtusis margine repandis vel integris opacis subtus pallidioribus costis lateralibus utrinque 8-10 pag. utraque facile aspectabilibus; *floribus* masculis solummodo obviis in cymas breves pedunculatas laxe trichotomas digestis; *pedicellis* filiformibus calycem certe excedentibus; *calycis* minutissime fulvo-sericei lobis oblongo-ovatis obtusissimis quam petala ovata obtusissima quasiunguiculata brevioribus; *disci* glandulis 5 subglobosis; *staminibus* 5 ad medium columnæ insertis additis 2-4 columnam coronantibus.

Queensland, Cape York; *Daemel*.

Folia (lamina sola) sæpius 10-15 cm. long., 5-6.5 cm. lat., exstant vero minora, glandulis minutis translucentibus creberrime instructa; reticulum sat apertum, pag. utraque visibile; petioli 6-15 mm. long., basi sæpe aliquantulum dilatati necnon transversim rugulosi. Stipulæ fugacæ, lanceolatae, 1.5 mm. long. Cymæ 3-4 × 3-6 cm. Pedunculus 6-12 mm. long. Bracteæ pusillæ, lanceolatae, circa 1 mm. long. Pedicelli plerumque 5-7 mm. long. Flores pansi circa 8 mm. diam. Calycis tubus 1 mm., lobi 2 mm. long. Petala 5 mm. long. Columna staminea sub verticillo crassiuscula, fere 3 mm. long., superne tenuis et 2 mm. long.; filamenta libera 1.5 mm. long.; antheræ ovideæ, obtusæ, fere 1 mm. long.

An addition to a small genus of three species, native respectively to India, Cochin China, and the Philippines, and hitherto not reported from Australia. Its occurrence in New Guinea may therefore be expected. One may mention that the 3-fid calyx given for this genus in 'Genera Plantarum' (iii. pt. 1. p. 292) is a mistake, most likely of the printer: this error Pax copies in 'Nat. Pflanzenfam.' iii. 5. p. 74, but he is more careful and gives the

proper number (5) of calyx-segments in his monograph in 'Das Pflanzenreich' (iv. 147. p. 113).

CROTON (§ *Eu-Croton*) *ARMSTRONGII*, sp. nov. *Ramis* verisimiliter erectis satis gracilibus pubescentibus ramulos pseudoverticillatos foliosos tenues pubescentes sursum emittentibus; *foliis* ramorum sub ramulis pseudoverticillatis quam ea ramulorum multo majoribus omnibus ovato-oblongis acutis basi obtusis nisi truncato-rotundatis margine dentatis (minoribus fere vel omnino integris) 5-nerviis pag. sup. pilis stellatis sparsim inspersis pag. inf. stellato-pubescentibus majoribus manifeste minoribus breviter petiolatis summis vero subsessilibus; *racemis* folia superantibus tandem subdistanter plurifloris pubescentibus; *floribus* inf. ♀ sup. ♂ omnibus breviter pedicellatis; *sepalis* ♂ oblongo-ovatis obtusis extus pubescentibus petalis glabris conformibus; *staminibus* 10 (anne semper?); *sepalis* ♀ quam ♂ majoribus ovato-oblongis obtusis extus tomentellis; *ovario* dense tomentoso; *stylis* dichotome 5-7-partitis.

Port Essington; *Armstrong*.

Folia membranacea, in sicco viridia, majora usque 5 cm. long., prope basin 2 cm. apicem versus 1 cm. lat.; petioli 5-10 mm. long.; folia minora ± 1.5 cm. long., horum petioli summum 3 mm. long. Racemi rite evoluti 5.5-7 mm. long. Bracteæ cymbiformes, circa 1 mm. long. Pedicelli utriusque sexus 1-1.5 mm. long. Sepala et petala ♂ circa 2 mm. long. Sepala ♀ 3 mm. long. Styli ramuli apice incurvi, circa 1.5 mm. long.

A very distinct species easily separable from *C. Verreauxii*, Baill. by the slender habit, small leaves, male flowers with glabrous petals, and the many-branched styles.

CODLÆUM MEMBRANACEUM, sp. nov. *Foliis* obovato-oblongis obtusis nonnunquam apice breviter cuspidato-attenuatis basin versus gradatim in petiolum sat longum attenuatis basi brevissime cordatis membranaceis glabris; *racemo* ♂ solummodo obvio subterminali folia breviter excedente distanter florifero minute puberulo; *floribus* parvis plerumque binis pedicellis filiformibus minute puberulis sese longe excedentibus fultis; *sepalis* suborbicularibus ægre omnino glabris; *petalis*?; *disci* glandulis suborbicularibus crassiusculis, staminibus fere 40.

Queensland, Cape York; *Daemel*.

Folia 13-16 cm. long., apicem versus 5.5 cm. lat., infra medium 3.5-4 cm. lat. ima basi tantum 3-4 mm., in sicco læte viridia; petioli 3-4 cm. long. Racemus fere 20 cm. long. Pedicelli sub floreendi tempore 8 mm. long. Sepala 1.65 mm. diam. Filamenta circa 2 mm. long.; antheræ .5 mm. lat.

Bentham (Fl. Austral. vi. p. 147) gives "about 20" stamens to the flowers of *C. variegatum*, Blume, var. *moluccanum*, Muell. Arg., hitherto the only

known Australian representative of the genus: in the 'Genera Plantarum' (iii. pt. 1. p. 299) the number of stamens for the genus is said to be 15–30. The plant under notice has certainly more stamens, but in view of this character's doubtful value and the female flowers being unknown, the claim of the present plant to specific rank must rest upon the membranaceous (not coriaceous) leaves markedly broader in their upper half and the small male flowers. If the petals be really absent that would be another peculiarity.

EXPLANATION OF THE PLATES.

PLATE 11.

A. Fruits of *Tribulus*.

1. *Tribulus Hystrix*, R. Br., with long subulate spines. 2. *Tribulus occidentalis*, R. Br., showing smaller fruit with short spines; both nat. size.

B. *Leptospermopsis myrtifolia*, gen. et sp. nov.

1. The plant, nat. size. 2. A flower, $\times 6$. 3. Section of same, the petals and stamens removed.

C. *Calothamnus validus*, sp. nov.

1. The plant, nat. size. 2. Fruit in side view, $\times \frac{3}{2}$.

PLATE 12.

A. *Symphlobasis alsinoides*, sp. nov.

1. The plant, nat. size. 2. A flower, $\times 10$, after three of the calyx segments have been removed, showing the corolla (*c*) adnate below to the ovary and also its spur (*sp.*). 3. Androecium with the style and stigma, $\times 16$.

B. *Mitrasacme nummularia*, sp. nov.

1. The plant, nat. size. 2. Flowers in various stages, $\times 10$. 3. Young flower viewed from above, $\times 10$. 4. Corolla opened, showing the stamens, $\times 10$. 5. Calyx slit open to show the ovary, $\times 10$. 6. Ovary in transverse section, magnified.

P. Highley del. et lith.

C. Hodges & Son imp.

P. Highley del. et lith.

C. Hodges & Son imp.