

A SYNOPSIS

OF

THE QUEENSLAND FLORA;

CONTAINING BOTH THE

PHENOGAMOUS AND CRYPTOGAMOUS PLANTS.

BY

FREDK. MANSON BAILEY, F.L.S.,
COLONIAL BOTANIST.

THIRD SUPPLEMENT.

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GOVERNMENT PRINTER, WILLIAM STREET.
1890.

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Dr. Mitchell

For addenda to this Suppl.

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of the indigenous and
naturalised plants of
Qld.

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PREFACE.

I GLADLY take this opportunity of thanking my numerous correspondents residing in the more or less unsettled parts of the Colony for the specimens of native plants they from time to time have forwarded to me. By this means the range of species becomes known, and new plants are often discovered.

The present Supplement will be found of more than ordinary interest from the large number of new species recorded—about one hundred in all. This addition to the Flora has been caused by the comparatively large number of new plants collected by the Bellenden-Ker Expedition.

In the Second Systematic Census of Australian Plants, just issued by Baron von Mueller, of Melbourne, I find a large number of plants recorded as occurring in Queensland which have not been noticed in the former parts of the Synopsis of the Queensland Flora; I have therefore given them with full descriptions in the present Supplement, thus completing an account of the Flora of the Colony up to the present time.

I would also remind persons living in the remote country districts that they would greatly help the work of recording the plants indigenous to Queensland by forwarding to me per post small flowering or fruiting shoots of such plants. At all times I shall be pleased to name the plants so sent, if required, in which cases each specimen should bear a number; the corresponding number to which should be retained by the sender.

F. M. B.

May, 1890.

THIRD SUPPLEMENT

TO THE

SYNOPSIS OF THE QUEENSLAND FLORA.

Class I. DICOTYLEDONS.

SUBCLASS POLYPETALÆ.—SERIES THALAMIFLORÆ.

ALLIANCE RANALES.

Order DILLENiaceÆ.

TRIBE HIBBERTIÆ.

HIBBERTIA.

SECTION EUHIBBERTIA.

H. velutina, *R. Br.*, Fl. Austr. i. 30. Shrub, all parts clothed with a whitish velvety tomentum; height 4 to 5 ft., and spreading; branches prominently angled. Leaves oblong-ovate, 1 to nearly 2 in. long, 3 to 7 lines broad, much tapering towards a petiole of about a line long; midrib very prominent, lateral veins patent and distinct, margins recurved. Peduncles axillary near the ends of the branches, flattened, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, with a narrow bract close under the calyx. Sepals 3 or 4 lines long, outer ones acute, inner ones obtuse, and wider. Petals broadly obovate, about $\frac{1}{2}$ -in. long. Stamens numerous. Carpels 3, at first silky then rather echinate, 2-ovulate.

Hab.: On summit of Mount Harold, off Tringilburra Creek, and Walsh's Pyramid, Mulgrave River.

Order ANONACEÆ.

TRIBE UVARIEÆ.

Uvaria heteropetala, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 5, is given as *Fitzalania heteropetala*, *F. v. M.*

TRIBE UNONEÆ.

Unona Ancana, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 5, is given as *Ancana stenopetala*, *F. v. M.*

POLYALTHIA, Blume.

P. Armitiana, *F. v. M.*, in Austr. Journ. of Pharm. Jan. 1887, 2nd Syst. Cens. Austr. Pl. 5.

I can find no description of this plant in the Journal of Pharmacy above quoted. After the description of *Mitrephora Froggattii* Baron Mueller says:—"Mr. Armit's collection from tributaries of the Gilbert River contains an Anonaceous plant possibly conspecific with the one just described; but the lateral nerves of the leaves are thinner, more approximated, and less curved, while the fruits are not unlike those of *Polyalthia Holtzeana*, but seem not provided with a conspicuous stipes; the flowers of Armit's plant are unknown. It has meanwhile been specifically designated under the discoverer's name."

Order MENISPERMACEÆ.

TRIBE COCCULEÆ.

TRISTICHOCALYX, F. v. M.

T. diffusus, *Miers*, contrib. to Bot. iii. 286.

Cocculus Selwynii, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 7, is given as *Hypserpa Selwyni*, *F. v. M.*

TRIBE PACHYGONEÆ.

Tinospora Hullsii, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 8, is given as *Pachygone Hullsii*, *F. v. M.*

ALLIANCE PARIETALES.

Order CRUCIFERÆ.

TRIBE LEPIDINEÆ.

CAPSELLA, Mœnch.

C. humistrata, *F. v. M.*, *Fragm.* xi. 25. An annual plant of under 2 in., the leaves divided into linear-lanceolate lobes. Racemes 1 to 4 in. long, flowers numerous; pedicels spreading, without bracts. Sepals ovate or oblong. Petals greenish-yellow, about 1 line long, entire. Stamens, filaments free, subulate-linear; anthers yellow, almost rotund, introrse. Pod $1\frac{1}{2}$ to 2 lines long; seeds rotundo-ovate.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 10.

Order CAPPARIDEÆ.

TRIBE CLEOMEÆ.

GYNANDROPSIS, DC.

G. Muelleri, *Benth.*, *Fl. Austr.* i. 91. An erect annual covered with a glandular viscid pubescence. Leaflets 3 to 5, lanceolate or oblong-linear, those of the upper leaves $\frac{1}{2}$ to 1 in. long on a long petiole.

Flowers yellow, on short pedicels in the upper axils, forming a terminal leafy raceme. Sepals $\frac{1}{2}$ to near 1 in. long, narrow, acuminate, unequal. Petals fully 3 in. long, oblong, narrowed into a long claw. Stamens 5 to 7, the stipes or elongated torus often $1\frac{1}{2}$ in. long. Capsule linear, 2 to $2\frac{1}{2}$ in. long, not striate, but rough with short glandular hairs, terminated by a slender style of nearly 1 in.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 8.

ALLIANCE CARYOPHYLLINÆ.

Order PORTULACEÆ.

CALANDRINIA, H. B. and K.

C. polyandra, *Benth.*, Fl. Austr. i. 172. An annual with decumbent or ascending branches of 6 to 12 in. Leaves few, chiefly in the lower part of the stem, thick and fleshy, the lowest broadly linear or almost spatulate, the upper ones narrow-linear, occasionally almost opposite, mostly 1 to $1\frac{1}{2}$ in. long. Flowers of a red-purple, rather large, few together in a terminal raceme, the pedicels 1 in. or more. Bracts small and scarious. Sepals very broad, rather obtuse, thin and slightly coloured, with scarcely prominent veins. Petals narrow-obovate, about $\frac{1}{2}$ -in. long. Stamens very numerous, irregularly united at the base; anthers short. Style divided to the base into 3 linear stigmatic branches. Capsule ovoid or oblong, 3-valved. Seeds very numerous and small, black, minutely pitted.—*Benth.*, *l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 45.

ALLIANCE GUTTIFERALES.

Order ELATINEÆ.

BERGIA, Linn.

B. perennis, *F. v. M.*, Fl. Austr. i. 181. Stems prostrate, woody, tortuous, with very short leafy branches, glabrous or with a very few short hairs. Leaves from ovate to elliptical-oblong, mostly 3 to 4 lines long, rather rigid, glabrous and glaucous, often ciliate towards the base and narrowed into a short petiole. Stigmas lanceolate, ciliate. Flowers usually 5-merous, on solitary pedicels, rarely exceeding the length of the leaves. Sepals broadly lanceolate, keeled, with scarious margins, nearly 2 lines long. Petals longer, rather narrow. Stamens usually 10, the 5 outer filaments dilated, especially below the middle. Styles filiform. Capsule rather shorter than the calyx, the valves leaving much of the dissepiments attached to the central column. Seeds oblong, curved, slightly furrowed and transversely wrinkled like those of *Elatine*.—*Benth.*, *l.c.*

Hab. : Swamps, Gulf country.

Order GUTTIFERÆ.

TRIBE GARCINIEÆ.

GARCINIA, Linn.

(Name in honour of Laurence Garcin, M.D., a French botanist.)

Flowers polygamous or dicecious. Sepals 4, in opposite pairs. Petals 4 or 5. Male flowers: Stamens indefinite, free, tetradelphous or monadelphous; anthers erect or peltate, dehiscing longitudinally or circumscissile. Female or hermaphrodite flowers: Staminodia various, free or united; ovary 2 or many-celled; stigmas sessile, lobed, smooth or tuberculate; ovules solitary. Fruit a berry; embryo an undivided thick radicle (tigella*). Glabrous trees usually with a yellow juice. Leaves coriaceous or submembranous, opposite, or ternately verticillate. Flowers solitary, fascicled or subpaniculate, axillary or terminal.—*Oliver* in Fl. Trop. Africa.

G. Mestoni (n. sp.) Meston's Mangosteen. (After A. Meston, the leader of the expedition to Bellenden-Ker.) An erect, slender, graceful tree of 20 or more feet; branches drooping. Leaves glossy dark-green, opposite, narrow-lanceolate, the points much elongated, 2 or 3 in. long, somewhat wavy but with entire edges; petioles slender, $\frac{1}{2}$ -in. or more long. Flowers (only a few very early buds seen, and these much injured by insects) probably small, either terminal or leaf-opposed, nearly sessile, with a few small bracts at the base. Sepals 4, small, imbricate. Petals white, and seem to be hairy. Fruit depressed-globular, a pleasing green, 2 in. diameter, but not fully grown, 8-celled. Seeds somewhat rugose. Stigmatic lobes 8, closely sessile on the fruit; the sepals closely appressed, persistent under the fruit, and probably not much enlarged.

Hab.: Bellenden-Ker Range, at an altitude of 2,000 feet.

Fruit of this tree were gathered in the ripe state by Messrs. Meston and Whelan on their first ascent of Bellenden-Ker, and they describe the fruit as possessing a sharp, pleasant, acid flavour and very juicy, about 3 in. in diameter.

ALLIANCE MALVALES.

Order MALVACEÆ.

TRIBE MALVEÆ.

SIDA, Linn.

S. intricata, *F. v. M.* in Trans. Phil. Soc. Vict. i. 19; Fl. Austr. i. 193. A slender, much-branched, tomentose undershrub, resembling some of the forms of *S. corrugata*, with cordate-ovate leaves. Flowers small on short slender pedicels, the fruits not above 2 lines diameter, consisting of 5 to 8 tomentose carpels, not furrowed at their points, and smooth or only very slightly wrinkled on the back.—Flora Austr. i. 193.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 24.

* A latinised word from the French *tigelle*, diminutive of *tige*, a stem; the portion of the embryo between the radicle and cotyledons.

TRIBE HIBISCEÆ.

HIBISCUS, Linn.

H. Notho-Manihot, *F. v. M.*, *Fragm.* v. 57, ix. 130. A tall shrub. Leaves palmately divided into from 5 to 7 lanceolate, acuminate, irregularly toothed lobes, the larger ones about 6 in. long and $\frac{1}{2}$ to 1 in. broad; petioles 1 to $3\frac{1}{2}$ in. long, glabrous. Stipules 3 or 4 lines long, caducous, linear-subulate. Pedicels axillary; involueral bracts 5 or 6, lanceolate, acute, slightly pilose. Calyx silky inside, bilabiate, the apex of the lips with 2 or 3 short teeth or entire. Corolla white with a reddish centre, about 2 in. long, staminal column about 1 in.; anthers yellow. Capsule globose-ovate.—From *Fragm.*, l.c.

Hab.: Rockingham Bay.

H. panduriformis, *Burm.*, *Fl. Ind.* 151, t. 47, f. 2; *Fl. Austr.* i. 215. A tall coarse herb or shrub densely covered with a tomentum, usually thick and velvety on the upper side of the leaves, closer and whiter on the under side and on the petioles and branches, where it is often intermixed with long, spreading, bristly, stellate hairs. Leaves broad-cordate, 3 or 4 in. long and broad, or rarely narrow, usually 5-angled or broadly lobed and irregularly crenate. Flowers yellow, on very short pedicels in the axils of the upper reduced leaves, the side branches often assuming the appearance of several-flowered peduncles. Bracteoles 6 to 8, linear or linear-spathulate, often as long as the calyx, more herbaceous than in most species and always dilated above the middle. Calyx 7 to 9 lines long, densely tomentose-hirsute, the lobes lanceolate, 1-nerved. Petals 1 to 2 in. long, densely hirsute where exposed in the bud. Capsule ovoid-globular, very hispid. Seeds shortly pubescent or rarely glabrous.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr.* Pl. 25.

Order STERCULIACEÆ.

TRIBE STERCULIÆ.

STERCULIA, Linn.

S. caudata, *Heward* in *Herb. Cunn.* *Fl. Austr.* i. 230. A tree, quite glabrous except the flowers. Leaves ovate-cordate, entire, long, acuminate, mostly 3 or 4 in. long, the veins more transverse than in any other species, some occasionally narrow-oblong or linear. Flowers rather small in short axillary panicles, the rachis and pedicels quite glabrous. Calyx broadly campanulate, deeply lobed, 6 to 7 lines diameter when fully out, very tomentose outside, pubescent inside especially at the bottom, but without appendages. Staminal column slender in the males, short in the females, pubescent at the base. Ovary very tomentose. Follicles glabrous, ovoid, rather large and thick, almost sessile.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr.* Pl. 27.

TRIBE BUETTNERIÆ.

COMMERSIONIA, Forst.

C. Fraseri, *J. Gay* in Mem. Mus. Par. x. 215, t. 15; Fl. Austr. i. 242. A tall shrub, with tomentose or hirsute branches. Leaves cordate-ovate, acuminate, 3 to 6 in. long, irregularly toothed, often oblique at the base, glabrous or slightly pubescent above, white-tomentose or softly hirsute underneath, the lower ones in the young plants broad and 3 or 5-lobed. Cymes loosely dichotomous, many-flowered, but shorter than the leaves. Calyx tomentose, fully 3 lines diameter, the lobes acute. Petals with a very short broad concave base, the ligula oblong-spathulate, nearly as long as the calyx. Staminodia linear-spathulate, as long as the petals, the central one of each three rather broader and lanceolate at the base, the lateral ones filiform at the base and shortly adnate to the central one; anther-bearing filaments very short. Capsule large, densely beset with soft villous setæ.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Fl. 28.

Order TILIACEÆ.

TRIBE TILIEÆ.

CORCHORUS, Linn.

C. hygrophilus, *A. Cunn.*, Fl. Austr. i. 276. A tall erect glabrous herb. Leaves petiolate, ovate or ovate-lanceolate, acuminate, 3 to 5 in. long, acutely and irregularly toothed. Cymes several-flowered, reflexed, shortly pedunculate, but rarely equalling the petioles. Flowers small, the buds obovoid, contracted at the base. Petals the length of the calyx. Stamens numerous on a raised torus. Capsule globular or ovoid-oblong, very obtuse, 2 to 4 lines long, more or less tuberculate, 2 or 3-celled. Seeds 8 or more in 2 rows in each cell, without transverse partitions.—Fl. Austr., l.c.

Hab.: Cleveland Bay.—*A. Cunn.*, l.c.

C. tomentellus, *F. v. M.*, Fragm. iii. 10; Fl. Austr. i. 278. A low, diffuse, stellate-tomentose shrub or undershrub. Leaves petiolate, from ovate to ovate-oblong, obtuse, $\frac{1}{2}$ to 1 in. long, crenate, slightly plicate and rugose, rather loosely stellate-tomentose, especially underneath. Flowers pedicellate, in nearly sessile clusters; bud obovoid. Sepals 3 or 4 lines long. Stamens numerous, the torus expanded into a prominent disk round their base. Capsule very slender, tomentose, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, 3-valved, with few distant seeds, but scarcely contracted between them.—Fl. Austr., l.c.

Hab.: Mackenzie River.—*F. v. M.*, l.c.

TRIBE ELÆOCARPEÆ.

ARISTOTELIA, L'Herit.

A. australasica, *F. v. M.*, Fragm. ii. 79, viii. 2; Fl. Austr. i. 280. A slender shrub, with a few soft hairs on the branches, petioles,

and principal veins on the under side of the leaves, otherwise glabrous. Leaves opposite on slender petioles, ovate, acuminate, 2 or 3 in. long, serrate, 3-nerved at the base. Peduncles usually axillary, 1 to 3-flowered, about 2 in. long. Pedicels short, with 2 narrow-linear bracteoles at the base, about $\frac{2}{3}$ -line long. Sepals 5, oval-oblong, about 2 lines long, with woolly ciliate margins. Petals about 3 lines long, obovate-cuneate, the apex 3-lobed, glabrous. Stamens 12 to 16; anther yellow, pointless, narrow-oblong, opening by short slit at the top. Ovary nearly glabrous. Style slender. Stigma minute. Berry globular, about 4 lines in diameter.—*F. v. M., l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 30.

SERIES DISCIFLORÆ.—ALLIANCE GERANIALES.

Order ZYGOPHYLLÆ.

ZYGOPHYLLUM, Linn.

Z. crenatum, *F. v. M.* in Linnæa xxv. 374, and Pl. Vict. 103, t. 6. Annual, small. Leaves with broad cuneate leaflets irregularly 2 or 3-lobed or deeply crenate at the end, on dilated petioles. Flowers rather small. Stamens 8. Fruit almost oval in outline, splitting loculicidally. Seeds numerous.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 22.

This species or form is reduced in Flora Austr. i. 293 to var. *lobulatum* of *Z. glaucescens*, *F. v. M.*; but Baron Mueller, in his recent work on the plants of Victoria, retains it as above.

Order RUTACEÆ.

TRIBE BORONIEÆ.

PHEBALIUM, A. Juss.

P. Billardieri, *A. Juss.* in Mem. Soc. Hist. Nat. Par. ii. 134; Fl. Austr. i. 344. An erect shrub or small tree, the branches angular and clothed with small brown scurfy scales. Leaves oblong, lanceolate or linear, obtuse or acute, rarely under $\frac{1}{2}$ -in. and often 3 in., or in very luxuriant specimens 4 or 5 in. long, entire, coriaceous, flat or with recurved margins, glabrous above, silvery-white underneath with minute scales. Flowers in axillary corymbs, shortly pedunculate, but always shorter than the leaves. Peduncles and pedicels thick and scaly. Calyx small-lobed. Petals about 2 lines long, glabrous, slightly imbricate, with inflexed tips. Stamens exserted, filaments often hairy in the lower portion. Ovary glabrous. Cocci small, broad, with a very short beak. Seeds shining.—*Fl. Austr., l.c.*

Hab.: Fraser Island.—*H. Tryon.*

TRIBE ZANTHOXYLÆ.

MELICOPE, Forst.

M. choorechillum (n. sp.) (Aboriginal name for Bartle Frere.) A large shrub or small tree, glabrous, branches thick. Leaves

opposite, of unequal size in each pair. Petioles 1 to $2\frac{1}{2}$ in. long, sulcate on the upper side. Leaflets 3, obovate, tapering from a broad emarginate end to the top of the petiole, $1\frac{1}{2}$ to 3 in. long, $\frac{3}{4}$ to $1\frac{1}{4}$ in. broad, of a thick cartilaginous or coriaceous texture; veins faint in the fresh leaf, but prominent in the dried specimens, the primary ones anastomosing far within the margin, the under surface closely covered with small dots (oil-dots). Flowers in short trichotomous panicles, length of the petioles, pedicellate. Sepals 4, obtuse, minute. Petals 4, about 4 lines long, linear, white, thick, the apex incurved. Stamens 8; filaments broad at the base, very nearly glabrous. Anthers oblong-rotund. Disk a yellow ring. Ovary glabrous, 4-celled. Style hairy on the lower half. Stigma shortly 4-lobed.

Hab.: Summit of Bartle Frere. In some respects this fresh species is allied to *Evodia Fareana*, F. v. M.

TRIBE AURANTIEÆ.

CITRUS, Linn.

C. inodora (n. sp.) North Queensland Lime. (Named from the flowers wanting fragrance.) A tall shrub; the young branches flattened or more or less angular as in the common orange. Spines not very numerous, about $\frac{1}{4}$ -in. long, erect, 1 or 2 at the axils of the leaf. Leaves lanceolate or ovate-lanceolate, with distant sinuous crenations, 3 to 7 in. long, $1\frac{1}{2}$ to 2 in. broad in the centre, the apex often elongated, and tapering towards the base to a very short petiole seldom exceeding $\frac{1}{4}$ -in. in length; substance coriaceous; midrib and primary veins more or less prominent, the latter rather close and anastomosing in an intramarginal vein. Flowers axillary, nearly sessile, and, so far as observed, scentless. Calyx of 5 minute teeth. Petals 5, about 3 lines long, spreading. Stamens free, over 30, of irregular length, shorter than the petals. Ovary, with style, scarcely exceeding a line in length. Fruit oblong, $2\frac{1}{2}$ in. long, $1\frac{1}{4}$ in. diameter, showing 8 obtuse ribs, the divisions of the fruit; pulp a sharp agreeable acid. Seeds oval, somewhat flattened on one side, convex on the other, 3 lines long, 2 lines broad; testa white.

Hab.: Harvey's Creek, Russell River.

This new species of *Citrus* is well worthy of cultivation for its fruit, which is juicy, and of equal flavour with the West Indian Lime. In general appearance the tree resembles the orange, having the same dark-green foliage. I have chosen the specific name on account of all the flowers gathered being wanting in fragrance, a remarkable feature in a genus so noted for scented flowers.

Order SIMARUBEÆ.

TRIBE SIMARUBEÆ.

HYPTIANDRA, Hook.

H. Bidwilli, Hook. Var. *grandiuscula*, Bail. and F. v. M. An erect tree of about 20 ft. Leaves lanceolate, coriaceous, often 9

m. long, and 2 in. broad in the middle, much tapering to short thick petioles, the leaves on young plants very much larger, midrib and veins prominent. Inflorescence terminal or in the upper leafless axils, the shoot ultimately growing out. Peduncles about 3 in. long, forked at the end and sometimes the branches again shortly forked and bearing 2 or 3 pedicellate pink flowers. Calyx-lobes or sepals 5, about $\frac{1}{2}$ -line long, thick and obtuse. Corolla of 5 oblong boat-shaped petals 5 lines long, 1 line broad, caducous. Stamens glabrous except at the lower part where the filaments are broad and adhere together by woolly hairs; anthers versatile. Ovary glabrous, 5-celled or 5 carpels. Style slender, stigma minute.

Hab.: Bellenden-Ker, at an altitude of 4,000 feet.

GANOPHYLLUM, Blume.

Flowers polygamo-dicæious. Male: Calyx small, cup-like, 5-fid, valvate, no petals; stamens 5 to 7, inserted between the lobes of the disk, and alternate with the lobes of the calyx; filaments filiform, exerted; anthers oblong; disk annular, puberulous, 5-lobed; ovary rudimentary. Female: Stamens 5, very short, alternate with the calyx-lobes; anthers very small, ovate, sterile; style very short; stigma depresso-capitate, 2-lobed; ovary free, 2-celled. Drupe 1-celled, 1-seeded; rarely 2-celled, 2-seeded. Trees, the branchlets angular, foliage more or less covered with wax-like scales. Leaves alternate, imparipinnate; leaflets entire, falcate, many pairs. Flowers small, greenish, ebracteate, in axillary racemose panicles.—*B. et H.*, Gen. Pl., and *F. v. M.* Fragm.

Hab.: Philippines, New Guinea, and Australia.

G. falcatum, *Blume*, Mus. Bot. Sugd. i. 230; *F. v. M.* Fragm. vii. 24. A tree of about 30 ft. Leaves pinnate, petiole $\frac{1}{2}$ to 3 in. long, rhachis about 1 ft. long bearing about 14 lanceolate-ovate leaflets, obtuse or shortly acuminate, $1\frac{1}{2}$ to 3 in. long, 1 to $1\frac{2}{3}$ in. broad, entire. Panicle a few inches long. Calyx about 1 line long, teeth semilanceolate-deltoid, ciliate. Stamens 6 or 7; filaments 1 or 2 lines long, glabrous; anthers sulphureous. Style in female flowers glabrous. Drupe 6 to 8 lines long.—*F. v. M.*, Fragm. l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 44.

Order MELIACEÆ.

TRIBE TRICHILIEÆ.

SYNOUM, A. Juss.

S. Muelleri, *C. DC.* in Monogr. Phanerog. i. 593.

Hab.: Rockingham Bay.

Noticed in Fragm. v. and xi., but the full description not to hand.

ALLIANCE OLACALES.

Order OLACINEÆ.

TRIBE OLACEÆ.

OLAX, Linn.

O. aphylla, *R. Br.*, Prod.; Fl. Austr. i. 393. A shrub of several feet, with numerous wiry, virgate, slightly pubescent branches. Leaves all reduced to minute scales. Flowers very small, almost sessile in the axils of orbicular ciliate bracts, rather longer than the calyx, towards the ends of the branches. Petals scarcely more than 1 line long, densely bearded inside about the middle. Staminodia linear and entire, or slightly spatulate and emarginate at the top. Fruit ovoid, about 2 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 109.

TRIBE OPILIEÆ.

OPILIA, Roxb.

Calyx minute, 5 or rarely 4-toothed. Petals 5 rarely 4, hypogynous, valvate in the bud. Stamens as many, alternating with the petals, free; filaments filiform; anthers ovate. Disk of 5 rarely 4 scales, alternating with the stamens. Ovary 1-celled, tapering into a short, thick, truncate style; ovule solitary, suspended from a central filiform placenta very early adnate to it. Drupe with a thin sarcocarp and crustaceous endocarp. Seeds spuriously erect; embryo linear, short, or nearly as long as the albumen. Shrubs or small trees, sometimes climbing. Leaves alternate, entire. Flowers in axillary racemes; pedicels 3 together in the axils of peltate bracts, which are imbricate at an early stage, but fall off before the flowers expand.—Fl. Austr. i. 394.

O. amentacea, *Roxb.*, Pl. Corom. ii. 31, t. 158; Fl. Austr. i. 394. A scrambling half-climbing shrub or small weak tree, glabrous or the young leaves and shoots minutely tomentose-pubescent. Leaves petiolate, ovate, ovate-lanceolate, or almost oblong, acute or acuminate, 2 to 3 or even 4 in. long, or rarely shorter and very obtuse, entire, thinly coriaceous, the veins usually prominent though fine. Racemes before flowering resembling little cylindrical cones of $\frac{1}{2}$ -in., the peltate, imbricate, but almost squarrose bracts alone visible, when in flower slender, about 1 in. long without bracts. Flowers very small, on filiform pedicels of about 1 line. Petals about $\frac{1}{2}$ -line long, very deciduous. Drupe ovoid or globular, $\frac{1}{2}$ to $\frac{3}{4}$ in. long. Embryo linear, nearly as long as the albumen.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 109.

ALLIANCE CELASTRALES.

Order CELASTRINEÆ.

DENHAMIA, Meisn.

D. viridissima, *Bail. and F. v. M.* A small tree with dense head of dark-green foliage. Leaves alternate or nearly opposite, often

clustered at the ends of the branchlets, lanceolate, 3 or 4 in. long, 1 to $1\frac{3}{4}$ in. broad in the centre, tapering to a very short petiole, the apex more or less elongate, margins entire, green on both surfaces, and the reticulation more or less prominent. Flowers in terminal pedunculate cymes or racemes, but the tree only met with in early fruit. Capsules 3-valved, somewhat fusiform, prominently obtusely 3-angular, 1 to $1\frac{1}{2}$ in. long, bursting loculicidally, bearing the seeds on the prominently projecting placentas. Seeds 4 to 6 to each placenta, half enclosed in a rather large fleshy arillus.

Hab.: Bellenden-Ker.

Hedraianthera porphyropetala, *F. v. M.*, should be placed in this order, not in MELIACEÆ, according to Muell. 2nd Syst. Cens. Austr. Pl. 40.

Order RHAMNEÆ.

TRIBE RHAMNEÆ.

DISCARIA, Hook.

(From *diskos*, a disc; the ovary being seated upon a broad disc.)

Calyx campanulate or tubular above the ovary, shortly 4 or 5-lobed. Petals hood-shaped, inserted with the stamens at the base of the calyx-lobes or none. Stamens 4 or 5, with short filaments, included in the petals when present. Disk annular in the base of the calyx-tube, the margin shortly free. Ovary more or less immersed in the disk, 3-lobed, 3-celled. Style slender, with a shortly 3-lobed stigma. Drupe or capsule coriaceous, 3-lobed, the endocarp separating into 3 2-valved crustaceous cocci. Seeds with a coriaceous testa; albumen fleshy; cotyledons orbicular. Much-branched rigid shrubs, with opposite often thorny branchlets. Leaves small, opposite, 1-nerved or penninerved. Stipules and bracts small. Flowers axillary.—*Flora Austr. i. 445.*

D. australis, *Hook.*, Bot. Misc. i. 157, t. 45. A scrubby, much-branched, thorny shrub of 1 to 2 ft., usually glabrous. Branches green, terete, the smaller ones reduced to stout spines of 1 to $1\frac{1}{2}$ in. Leaves often appearing clustered from the shortness of the shoots, oblong or cuneate, obtuse or emarginate, rarely exceeding $\frac{1}{2}$ -in. Pedicels solitary or clustered in the axils of small leaves, which soon fall off from the very short branches, the flowers then appearing densely clustered under the spines. Calyx-tube broadly campanulate above the disk, the limb spreading to about 2 lines diameter. Petals narrow, hood-shaped. Ovary deeply immersed in the disk, the short free part 3-lobed. Fruit 2 to 3 lines diameter.—*Flora Austr. i. 445.*

Hab.: Eton Vale, Darling Downs.

TRIBE GOUANIEÆ.

GOUANIA, Linn.

G. australiana, *F. v. M.*, *Fragm. iv. 144.* Of this extensive tomentose climber, Baron Mueller, when describing the plant in *Fragm.*

iv. 144, had no fruit. The plants were in fruit in the Mulgrave River scrubs, so I may add to his description the following:—Fruit 3-winged, 3-celled, measuring (including the wings) about 4 lines diameter, tomentose like the rest of the plant, wings veined; seeds glossy, light-brown, a line long, showing about 3 blunt angles.

Hab.: Mulgrave River.

Order AMPELIDÆ.

VITIS, Linn.

V. tenuifolia, *W. and A.*, Prod. 129; *Hook.*, Fl. Brit. Ind. i. 660. (*V. japonica*, Thunb., Fl. Jap. 104; *Cissus japonica*, Willd.) Whole plant glabrous, stem slender. Petioles 2 to 4 in. long. Leaves pedately 5-foliolate, leaflets stalked, 1 to 3 in. long, $\frac{3}{4}$ to 2 in. broad, lanceolate or ovate-lanceolate, acute, sharply serrate. Tendrils short, slender, simple or forked. Cymes divaricating, dichotomous, bisexual, somewhat diffuse, axillary but often owing to the sudden suppression of the flower-bearing branch appearing terminal. Style short. Stigma large, subpeltate. Fruit the size of a pea, 1 to 4-seeded. Seed rounded and muricate on the back, sharply ridged on the face.—Fl. Brit. Ind., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 105, under *V. japonica*, Thunb.

LEEA, Linn.

L. Brunoniana, *Clarke* in Brit. Journ. Bot. x. 166. Nearly glabrous, upper leaves 2 or often 3-pinnate; leaflets elliptic, very shortly acuminate, primary nerves numerous, continued nearly to the margin, often setulose; corymbs glabrous. Australia, R. Br. n. 5272; Port Darwin, Schultz, n. 627. Called *L. sambucina* by Benth. (Fl. Austr. 1451), but not merely the colour of the flowers, but the nervation of the leaves, totally differs from *L. sambucina*, Willd. The present species is like a very handsome well-developed *L. rubra* or *L. setuligera*.—*Clarke*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 105.

ALLIANCE SAPINDALES.

Order SAPINDACEÆ.

TRIBE SAPINDEÆ.

CUPANIA, Linn.

C. pleurophylla, *F. v. M.* in Vict. Nat. iii. 170; name only.

Hab.: Bellenden-Ker.—*F. v. M.*, l.c.

RATONIA, DC.

R. exangulata, *F. v. M.*, Fragm. iv. 156, ix. 91. A tall shrub or small tree. Wood hard, reddish; branches, petioles, and inflorescence

ferruginous. Leaflets 2 to 6, ovate, ovate-lanceolate, attaining 8 in. in length and $3\frac{1}{4}$ in. in breadth, on petioles of from 3 to 9 in. long; upper surface glabrous, pilose on the under side. Panicle raceme-like, from a few to several inches in length. Bracts tomentose, subulate-semilanceolate, about 1 line long. Petals minute, bearded. Capsule not distinctly ribbed or regularly valvate. Seed ovate, $\frac{1}{2}$ -in. long; testa smooth, brown.

Hab.: Hinchinbrook Island.—*F. v. M.*, *Fragm.* ix. 91.

NEPHELIUM, Linn.

N. semicinereum, *F. v. M.*, *Fragm.* iv. 158; name only.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 42.

HARPULLIA, Roxb.

H. frutescens (n. sp.) A slender usually single-stemmed shrub, so far as observed never attaining more than 5 feet, slightly rusty-pubescent. Leaf-rhachis prominently winged to the base, and extending beyond the last pinnæ; pinnæ nearly opposite, sessile, lanceolate, with attenuated points, 4 to 8 in. long, $1\frac{1}{2}$ to $2\frac{1}{2}$ in. wide in the centre, membranous, of a dark green and always quite entire. Inflorescence a terminal erect panicle with but a few short branches near the base, the female or hermaphrodite flowers near the base, the end or upper ones male, white and fragrant, on short pedicels; sepals imbricate, 4 or 5, linear-obtuse, 3 or 4 lines long, rusty-tomentose. Petals 4, lanceolate, 6 or 7 lines long, recurved. Stamens 7 or 8, nearly as long as the petals, surrounded by a ring of short, erect, obtuse glands. Capsule 2 or 3-celled, forming spreading lobes $1\frac{1}{2}$ in. wide and 1 in. deep, the outside clothed with a deep crimson tomentum, 2 seeds in each cell, enveloped in a cup-shaped yellow arillus.

Hab.: Bellenden-Ker, at an altitude of over 2,000 feet, and very frequently met with in the scrubs bordering the rivers on the lower lands of the district. In *Fragm.* ix. 89, July, 1875, Baron von Mueller notices a plant, probably this, as occurring at Rockingham Bay, as *H. alata*, *F. v. M.*, having entire leaflets and flowering as a shrub. I have, however, during my recent visit to Bellenden-Ker, made a point of hunting for any plant of the species with serrated leaflets, or that attains the size of even a large shrub, and having failed, think it better to give this Northern plant specific rank.

Order ANACARDIACEÆ.

BLEPHAROCARYA, *F. v. M.*

B. involucrigera, *F. v. M.*, *Fragm.* xi. 16. In 2nd *Syst. Cens. Austr. Pl.*, Baron Mueller removes this from SAPINDACEÆ to this Order.

specimens examined. Peduncles solitary, about 1 in. long, bearing a stem-clasping 2-lobed bract about the middle. Spike about $1\frac{1}{2}$ in. long. Flowers numerous but not crowded, pale-coloured, bracts subtending the flowers very deciduous, narrow. Calyx-tube nearly 2 lines long, teeth 3, rather broad and silky. Corolla-tube about 2 lines long, teeth 5, about $\frac{1}{2}$ -line long, narrow, silky. Stamens numerous, exerted about 3 lines; anther minute, globular. Pod very thick, 4 to 6 in. long, $\frac{3}{4}$ -in wide, sessile. Seeds thick, oval, about 5 lines long.

Hab.: Southern slope of Newcastle Range, between Georgetown and Junction Creek.—*R. C. Burton.*

Order SAXIFRAGEÆ.

TRIBE CUNONIEÆ.

BAUERA, Banks.

B. capitata, *Ser.* in DC. Prod. iv. 13; Fl. Austr. ii. 448. A small shrub, either diffuse with the habit of the shorter specimens of *B. rubioides*, var. *microphylla*, or with a woody stock and numerous slender stems of $\frac{1}{2}$ -ft., slightly pubescent. Leaflets narrow, scarcely above $\frac{1}{4}$ -in. long, obtuse, usually with 1 prominent lobe or tooth on each side. Flowers almost sessile, solitary in each axil, but several pairs close together at the ends of the branches, forming little leafy heads. Calyx-segments 4 to 6, usually 5, about 2 lines long, more distinctly 3-fid than the leaves. Stamens not numerous; anthers small. Ovary free, but attached by a broad base; ovules several in each cell, ascending from near the base of the partition. Capsule loculicidal but scarcely septicidal. Seeds rather large, pubescent, rugose, with a prominent raphe.—Fl. Austr., l.c.

Hab.: Logan River.—*Rev. B. Scortechini.*

Order HALORAGEÆ.

HALORAGIS, Forst.

SERIES ALTERNIFOLLE.

H. elata, *A. Cunn.*; *Fenzl.* in *Hueg. Enum.*; Fl. Austr. ii. 476. Rather coarse, with erect or ascending branches, $\frac{1}{2}$ to $1\frac{1}{2}$ ft. high, hirsute with spreading hairs. Leaves alternate, or a few very rarely irregularly opposite, linear, acutely acuminate, $\frac{1}{2}$ to 1 in. long, with revolute margins, entire or rarely with a few short teeth, the floral ones smaller but mostly exceeding the flowers. Flowers solitary, not very small, in terminal racemes forming a narrow leafy panicle. Calyx hirsute, the lobes not cordate. Petals 4, ciliate on the keel. Stamens usually 8. Styles and ovules 4. Fruit small, ovoid, prominently muricate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl. 85.*

H. Gossei, *F. v. M.*, *Fragm.* viii. 161. Plant erect, glabrous. Leaves scattered, flat, narrow-lanceolate, remotely toothed. Flowers (female)

solitary or in twos or threes in the axils at the upper ends of the branches. Calyx 3-lobed, at first ovate-rhomboid, at length broad, renate, rhombiform. Fruit 3-celled, 3-winged, or at times 4-celled, 2 to 4 lines long, $\frac{3}{4}$ to $1\frac{1}{2}$ line broad. Seeds solitary in each cell.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

SERIES OPPOSITIFOLLE.

H. stricta, *R. Br.*; *Benth.* in Fl. Austr. ii. 482. Plant rigid but slender, rather tall, nearly glabrous in appearance but very scabrous. Stem-leaves opposite, linear or linear-lanceolate, acute, entire or with small distant teeth, the largest ones 1 to 2 in. long, the floral ones alternate, mostly reduced to small bracts. Flowers clustered within each bract, shortly pedicellate, forming slender terminal racemes leafy at the base. Calyx-lobes small, acute. Petals 4, about 1 line long. Stamens 8. Style and ovules 4. Fruit small.

Hab. : Broadsound.—*R. Br.*, Fl. Austr., l.c.

H. depressa, *Walp.*, Rep. ii. 99; Fl. Austr. ii. 485. A small species, diffuse or prostrate, very much branched, glabrous in appearance, but scabrous with minute asperities. Leaves all opposite, ovate, often cordate, usually broad, under $\frac{1}{2}$ -in. and often not $\frac{1}{4}$ -in. long, the upper floral ones gradually smaller, but all opposite or very rarely the upper ones of side branches alternate. Flowers almost sessile, forming short interrupted terminal racemes, and similar to those of the smaller forms of *A. tetragyna*, except that the calyx-tube and fruit are smooth and shining, with 4 or 8 prominent nerves, not tuberculate.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

H. Bæuerlenii, *F. v. M.*, Trans. Roy. Soc. Vict. xxiv. 133. A tall shrub with glabrous spreading branches, the smaller ones quadrangular and of a reddish tinge. Leaves opposite, attaining 2 in. in length and 4 to 6 lines in breadth, flat, gradually narrowed into an acute apex, on some shoots pinnatilobed. Pedicels axillary, solitary or perhaps racemose when near the ends of the branches, 2 of the calyx-lobes deltoid, the 2 others dilated, or truncate-rhomboid; tube when fruit-bearing expanded into 4 broadish conspicuously veined membranes, of these, on each side of the somewhat compressed tube 2 approximated. Styles 4, very short; stigmas beardless. Fruit rather large, 4-celled; pericarp spongy.

Hab. : Given as a Queensland plant in Muell. 4th Suppl. Syst. Cens. Austr. Pl. 3.

CALLITRICHE, Linn.

C. macropteryx, *Hegel.*, Monogr. Callitr. (*C. Muelleri*, Sond.) This species (?) is the common one in Queensland, and only differs from *C. verna*, Linn., in having broader wings to the fruit.

ALLIANCE MYRTALES.

Order RHIZOPHORACEÆ.

BRUGUIERA, Linn.

B. caryophylloides, *Blume*, Enum. Pl. Jav. 93. A small tree. Leaves oblong to oblong-lanceolate, acuminate at both ends, scarcely coriaceous. Peduncles equalling the petioles, 1 to 5 usually 3-flowered buds sub-acute, pedicelled. Calyx about 8-cleft; lobes linear, sub-acute, about $\frac{1}{4}$ -in. reflexed and half the length of the tube in fruit. Petals ciliate from the base to apex, nearly erect, bifid, bearing 3 to 4 bristles and 1 in the notch. Calyx-tube obtuse at the base, not ribbed. Ovary 2-celled. Fruit about $\frac{1}{2}$ -in., urceolate, slightly constricted below the calyx-limb.—Fl. Brit. Ind. ii. 438.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

Order MYRTACEÆ.

TRIBE LEPTOSPERMEÆ.

BECKEA, Linn.

B. linifolia, *Rudge* in Trans. Linn. Soc. viii. 297, t. 12; Fl. Austr. iii. 80. Tall and erect, with slender virgate branches. Leaves very narrow-linear, semi-terete or concave, acute, in some specimens all above $\frac{1}{2}$ -in., attaining $\frac{3}{4}$ or even 1 in., in others mostly $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Flowers small, solitary in the upper axils, almost sessile or on pedicels rarely attaining 1 line. Calyx-tube turbinate or at length almost urceolate; lobes very broad and short, scarcely pointed. Petals about 1 line diameter. Stamens 10 to 15, none opposite the centre of the petals; filaments filiform; anther-cells parallel, opening longitudinally; connective-gland small. Ovary flat-topped, 2-celled, with 15 to 20 ovules in each cell round an orbicular almost peltate placenta. Capsule separating readily from the calyx-tube. Seeds small, angular. Embryo with the slender cotyledonar end closely folded against the radicle, but otherwise straight.

Hab.: Moreton Bay.—*H. Simmonds*.

KUNZEA, Reichb.

SECTION SALISIA.

K. peduncularis, *F. v. M.* in Trans. Vict. Inst. 1855; Fl. Austr. iii. 115. A tall shrub or small tree; the branchlets virgate, glabrous or very slightly silky when young. Leaves linear or linear-lanceolate, concave, acute, mostly about $\frac{1}{2}$ -in. but varying from $\frac{1}{4}$ to nearly 1 in. long. Flowers small, shortly pedicellate in the upper axils, forming either short terminal leafy corymbs, or long interrupted leafy racemes. Bracteoles scarious, but falling off from the very early bud. Calyx glabrous, about $1\frac{1}{2}$ line long; lobes ovate, with scarious margins. Petals obovate, not exceeding 1 line. Stamens about 30, in a single series, from half as long again to twice as long as the petals.

Ovary about half as long as the calyx-tube, 3-celled or very rarely 4-celled, with numerous ovules in each cell on a peltate placenta. Fruiting calyx slightly enlarged. Seeds usually only 1 perfect in each cell.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 93.

LEPTOSPERMUM, Forst.

L. wooroonoran (n. sp.) (Aboriginal name for Bellenden-Ker.) Trunk often extending in an almost horizontal position for several yards at from 3 to 6 ft. above the ground, 2 or 3 ft. diameter, with a thick stringy bark, from which branches arise to 20 or 30 ft., thus forming a large spreading-headed tree of dense foliage. This peculiar growth is due probably to the high winds which blow at certain seasons of the year. Leaves alternate, lanceolate, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, 2 to $2\frac{1}{2}$ lines broad in the centre, midrib and a marginal nerve on each side prominent, oil-dots numerous, with blunt, glandular, slightly recurved apex, base decurrent forming angles on the branchlets, slightly silky when young, as are also the young shoots. No flowers seen. Capsules solitary or 2 together at the ends of the short branchlets. Calyx-tube glabrous, 5-ribbed, corresponding with the 5 cells, nearly sessile, slightly over 2 lines diameter; the capsule prominent above the calyx-tube.

Hab.: South Peak, Bellenden-Ker, and so far as at present known only found there. The wood is strong, heavy, and of a reddish colour.

EUCALYPTUS, L'Her.

E. pachyphylla, *F. v. M.* in Journ. Linn. Soc. iii. 98; Fl. Austr. iii. 237; Eucalyptogr. 1st Dec. A tall shrub with thick branchlets. Leaves ovate or ovate-lanceolate, abruptly acuminate, under 4 in. long, very thick and smooth, the fine diverging parallel veins scarcely conspicuous. Flowers nearly or quite sessile, calyx with 4 to 7 longitudinal angles, operculum semi-ovate and acuminate, twice as long as the tube. Stamens yellow. Fruiting umbels nearly sessile; fruits on thick terete pedicels, nearly hemispherical, 4-ribbed, very hard and woody, $\frac{3}{4}$ to 1 in. diameter, the rim very broad and conically exerted, the capsule depressed below the rim, the valves scarcely protruding. Seeds broad, flat, bordered by a narrow wing.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 98.

TRIBE MYRTEÆ.

MYRTUS?

M. metrosideros (n. sp.) Tree 30 or 40 ft. high, trunk often crooked, 1 to $1\frac{1}{2}$ ft. diameter, bark thick and loose on the outside; head spreading and foliage very dense; branchlets and leaf-petioles silky-hairy. Leaves ovate, with long acuminate points, mostly under 1 in. long, glabrous except while very young, coriaceous, the midrib

alone showing, glossy on the upper, pale and closely dotted with minute dots on the under side; petioles 2 lines long.

This and the *Leptospermum wooroonooran* are the only two large trees on the south peak of Bellenden-Ker, therefore of sufficient interest to mention, although no flowers or fruit were obtained. I have placed it under *Myrtus*, but it strongly reminds one of some of the New Zealand *Metrosideros*.

Order LYTHRARIÆ.

AMMANNIA, Linn.

A. mexicana, *Chamis. and Schlecht.* in *Linnæa* v. 567.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

A. occultiflora, *Koehne* in *Engler's Jahrb.* i. 152.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

A. diandra, *F. v. M.*, *Fragm.* iii. 108; *Fl. Austr.* iii. 296. Erect or creeping at the base, branched or nearly simple, not exceeding 6 in. but not so slender as *A. pentandra*. Stem-leaves sessile, orbicular, very obtuse, cordate at the base, 2 or 3 lines diameter, the floral ones scarcely smaller, orbicular or ovate, and often very close, forming imbricated decussate spikes. Flowers solitary in the axils, sessile or nearly so. Calyx small, very thin and membranous, somewhat 4-angled, with 4 acute lobes shorter than the tube, without accessory teeth. Petals rudimentary. Stamens usually 2, inserted below the middle of the tube. Ovary 1-celled or imperfectly 2-celled. Capsule opening in 2 valves.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

ALLIANCE PASSIFLORALES.

Order PASSIFLOREÆ.

CARICA, Linn.

Flowers unisexual or sometimes hermaphrodite. Male flowers: Calyx small, 5-lobed; corolla hypocrateriform, the tube slender, elongated, lobes oblong or linear, valvate or contorted; stamens 10, inserted at the throat of the corolla, biseriate; anthers 2-celled; ovary rudimentary, subulate. Female flowers: Calyx of the males; petals 5, linear-oblong, erect, deciduous; staminodia none; ovary free, sessile, 1 or spuriously 5-celled; style none or very short; stigmas 5, dilated or linear, simple or lobed, ovules numerous. Berry fleshy, sulcate, pulpy within, indehiscent. Seeds ovoid, subcompressed; testa coriaceous or crustaceous, smooth, rugose, or echinate. Trees or shrubs with simple thick stems and milky sap. Leaves alternate, subpeltate, palmate, digitately divided into 7 to 9 lobes.—*From Benth. and Hook. Gen. Pl.*

C. Papaya, *Linn.* Stems simple or rarely branched, thick, spongy inside, the leaves about the summit, on long petioles, glabrous, of about 7 pinnatifid lobes. On the male plants the flowers are borne on

* Description not to hand.

long drooping panicles, with often a few hermaphrodite or female flowers at the end; the flowers on the female plants are usually sessile or nearly so in the axils of the leaves.

Hab.: This plant of Tropical America has become naturalised in some of the scrubs of Tropical Queensland

PASSIFLORA, Linn.

P. quadrangularis, Linn. (The large Granadilla.) Stems quadrangular, almost or quite winged. Leaves ovate-roundish, subcordate at the base, mucronate, quite entire, arch-veined, the petiole with usually 3 pairs of glands near the summit. Stipules large, ovate or ovate-oblong. Involucre of 3 bracts. Flowers large, very fragrant and showy, the petals rosy, corona violet. Fruit oblong.

Hab.: This South American climber has become naturalised in some of the scrubs of Northern Queensland.

Order CUCURBITACEÆ.

TRICHOSANTHES, Linn.

T. cucumerina, Linn., Spec. Pl. 1432; Fl. Austr. iii. 314. Stems slender, although sometimes extending to a great length. Leaves nearly orbicular or reniform in their outline, broadly cordate at the base, mostly 3 or 4 in. diameter, palmately 3 to 7-lobed, the lobes broad, reaching to the middle and irregularly toothed, more or less scabrous-pubescent. Tendrils 3-branched. Male flowers in short racemes at the end of a long slender peduncle, without bracts. Calyx-tube, in the young bud, short, broad, and rounded at the base; teeth very short and recurved. Corolla-lobes narrow-oblong, $\frac{1}{2}$ -in. long, besides the fringe of long cilia. Female flowers shortly pedicellate. Calyx-tube attenuated above the ovary into a long slender neck. Fruit ovoid-conical, acuminate, not exceeding 2 in., orange-red or yellow when ripe. Seeds about 8 or 10, thick but flattened, with the margin more or less crenate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 129.

LUFFA, Cav.

L. ægyptiaca, Mill., Dict.; Ser. in DC. Prod. iii. 303; Fl. Austr. iii. 316; Fl. Brit. Ind. ii. 615.

L. æ. var. peramara, Bail. (So designated from the intense bitter of the fibres of the fruit). Plant of climbing habit rambling over shrubs and small trees to the height of about 20 ft. Stems 5-angular, smooth, the young growth hoary or silvery. Leaves 4 to 8 in. diameter, more or less deeply 5-lobed, the lobes more or less toothed or lobed, the central lobe often much longer than the others and always acute, the lower lobes often rounded, scabrous, especially on the upper surface; petioles angular, nearly of equal length with the lamina. Tendrils 2 or 3-branched or at times simple. Male flowers in short racemes on long peduncles, with a sessile,

glabrous, thick, prominently tuberculated, cordate bract at the base, and similar bracteoles under each flower. Calyx-tube turbinate, 10-nerved; lobes longer than the tube, acuminate, 3 or 4 lines long. Corolla about 2 in. diameter, yellow, divided into 5 obovate deeply divided lobes or petals, much bearded at the base. Stamens 5, in some flowers all free, in others 2 connate pairs and the other free. Female flowers solitary, pedunculate, in the same axils as the male, without bract or bracteole; calyx-lobes tuberculate like the bracts, corolla as in the males. Fruit ovate-oblong, about 3 in. long, 10-nerved, smooth, grayish or light-brown, internal fibres black and very bitter. Seeds oval, very dark brown with irregular jet-black spots, otherwise smooth, 4 lines long excluding the narrow wing by which it is surrounded.

Hab.: Mulgrave River.

Dr. Thos. L. Bancroft says of the fruit of this plant—"Upon tasting the fruit there is experienced an intensely bitter sensation, which in a few minutes disappears but leaves a distressing acidity in the throat, which is not at its worst until several hours afterwards. An extract is very poisonous and contains two principles, a bitter substance and a saponin."—*Paper to Linn. Soc. of N.S.W., Nov., 1889.*

In *Fragm. iii. 107* Baron Mueller describes this *Luffa* under Nandin's name of *L. leiocarpa*, but in his later works follows the *Flora Austr.* and places it as *L. ægyptiaca*, of which I consider the Australian plant had better be known as a distinct form, as above given.

MELOTHRIA, Linn.

M. subpellucida, *Cogniaux*, Muell. 2nd. Syst. Cens. Austr. Pl. 129.*

Hab.: Given as a Queensland plant, l.c.

M. Celebica, *Cogniaux* in DC. Mon. Phan. iii. 625, in Muell. 2nd Syst. Cens. Austr. Pl. 129.*

Hab.: Given as a Queensland plant, l.c.

ALLIANCE FICOIDALES.

Order FICOIDEÆ.

MOLLUGO, Linn.

M. stricta, *Linn.*, Spec. Pl. ed. alt. 31; Muell. 2nd. Syst. Cens. Austr. Pl. 53. Plant glabrous, stems much branched, leafy, about 1 ft. high. Leaves $\frac{3}{4}$ to $1\frac{1}{2}$ in., whorled or opposite, varying from lanceolate-acute to obovate-obtuse, much narrowed at the base; the petioles hence obscure. Cymes compound, the branches sometimes racemose. Sepals about $1\frac{1}{2}$ line long, elliptic or round. Stamens 3 to 5, filaments dilated. Styles 3, short, linear. Capsule as long as the sepals, globose, many-seeded. Seeds dark chestnut-coloured, covered with raised tubercular points; embryo curved into three-quarters of a complete circle.—*Clarke* in Hook. Fl. Brit. Ind.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 53.

* Description not to hand.

ALLIANCE UMBELLALES.

Order UMBELLIFERÆ.

SERIES HETEROSCIADIÆ.—TRIBE HYDROCOTYLEÆ.

TRACHYMENE, Rudge.

T. cyanopetala, *Benth.*, Fl. Austr. iii. 348. Plant rather slender, nearly glabrous. Leaves deeply 3 or 5-lobed, with narrow-linear or cuneate entire or 2 or 3-lobed divisions. Peduncles short. Involucre of 4 or 5 bracts. Flowers in the umbel 3 to 6, on very short pedicels. Petals blue. Fruit densely covered with soft ciliolate bristles.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 106.

Order ARALIACEÆ.

ARALIA, Linn.

A. Macdowalli, *F. v. M.*, Sou. Sci. Rec. April, 1886. To which description may be added:—Tree with slender erect trunk 30 to 40 feet high, the whole as well as the branches densely covered with short, stout, sharp prickles except on the petioles, although present there.—Rep. Bellenden-Ker Exped. 44.

Porospermum Michieanum, *F. v. M.*, in Muell. 2nd. Syst. Cens. Austr. Pl. 105, is given as *Delarbraea Michieana*, *F. v. M.*

SUBCLASS GAMOPETALÆ.—SERIES INFERÆ.

ALLIANCE RUBIALES.

Order RUBIACEÆ.

TRIBE NAUCLEEÆ.

UNCARIA, Schreb.

(Named from the hooks formed by the old peduncles.)

Calyx-tube spindle-shaped; limb 5-lobed or parted. Corolla-tube long funnel-shaped; limb 5-lobed, valvate; throat glabrous. Stamens 5, attached on the throat of the corolla; filaments short; anthers with 2 basal bristles. Ovary 2-celled; style slender; stigma capitate; ovules many, ascending on projecting placentas. Capsule elongate, septicidally 2-valved, many-seeded. Seed imbricating upwards, testas winged above and below; embryo clavate, in fleshy albumen. Climbing shrubs. Leaves shortly petiolate; stipules entire or 2-fid. Flowers in globose, axillary, pedunculate, solitary, or paniculate heads. The peduncles often headless and converted into hooked tendrils.

U. ferrea, *DC.*, Prod. iv. 348; *Hook.*, Fl. Ind. iii. 33. A robust climbing shrub often attaining the height of 30 or 40 ft.; branches subterete and more or less covered by rusty-brown short hairs, which also extend to the nerves of the leaves. Leaves ovate or

elliptical-ovate, obtusely acuminate, primary nerves of 8 or 9 pairs, very prominent; petiole short. Stipules large, 2-fid. Peduncles axillary, with several ovate, acuminate, tomentose bracts nearly $\frac{1}{2}$ -in. long. Heads 2 in. diameter; flowers subsessile; calyx-tube shorter than the lobes, hirsute; lobes filiform; corolla glabrous. Capsule about $\frac{1}{2}$ -in. long, fusiform, hairy, the pedicels about the same length.—In part from Hook. Fl. Ind. The flowers of the Queensland plant not seen.

Hab.: Mulgrave River.

From some leaves which I submitted to Dr. Thos. L. Bancroft for examination, he states that he found them to contain catechu, like *U. Gambier*, another Indian species, from the foliage of which the catechu of commerce, Gambier or *Terra japonica*, is obtained.

TRIBE HEDYOTIDEÆ.

OLDENLANDIA, Linn.

(After H. B. Oldenland, a collector of plants in South Africa.)

Calyx-teeth 4 rarely 5, usually erect and distant in fruit, with sometimes alternating teeth. Corolla rotate, funnel or salver-shaped, tube short or long; lobes 4 or rarely 5, obtuse, valvate. Ovary 2-celled; style filiform; stigmas 2, linear; ovules numerous, placentas attached to the septum. Capsule small, usually membranous, terete, didymous, or angled, loculicidal at the top, rarely indehiscent, many-seeded. Seeds angled or globose, testa not winged, smooth or pitted; embryo clavate in fleshy albumen.—*Hook.* in Fl. Brit. Ind. iii. 64.

O. corymbosa, *Linn.*; *Hiern.* in Oliv. Fl. Trop. Afr. iii. 62. An erect ascending or diffuse annual, smooth and glabrous or nearly so, branched, up to a foot in height. Branches 4-angled, usually smooth. Leaves linear or nearly so, acute or apiculate, narrowed to the sessile base, usually glaucous or paler underneath, the longer ones $\frac{2}{3}$ to $1\frac{1}{2}$ in. long, or in some forms longer; stipules truncate, shortly sheathing, sub-3-setose. Flowers tetramerous, white, 1 to $1\frac{1}{2}$ line long, 2 to 5 together in axillary and terminal umbellate corymbs usually rather shorter than the leaves or rarely solitary; pedicels 1 to 3 lines long; peduncles ranging up to $\frac{1}{2}$ -in. Calyx about equalling the corolla-tube, teeth lanceolate, as long as the tube. Corolla campanulate or subrotate; throat pubescent or nearly glabrous. Anthers included or subexserted. Fruit subglobose, a little over 1 line diameter, subdidymous, crowned by the calyx-limb, at length bursting loculicidally at the apex.—*Hiern.*, *l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 125.

O. paniculata, *Linn.*, *Burm.* Fl. Ind. 38, t. 15, f. 1. A glabrous stout or slender annual, succulent, 6 to 18 in. high, erect or diffuse, branched from the base, the branches obtusely 4-angled. Leaves petiolate, elliptic-ovate or oblong, $\frac{1}{3}$ to 3 in. long, $\frac{1}{4}$ to $1\frac{1}{2}$ in. broad, bright-green, soft, nerves indistinct, narrowed to the petiole. Stipules truncate, with median points or bristles. Cymes in the upper axils, short, 3 to 8-fid. Flowers minute, white. Capsules very variable,

$1\frac{1}{2}$ to 2 lines diameter, turbinate, didymous, or hemispherical, terete or 4-ribbed, membranous; crown usually exceeding the calyx-teeth.—*Hook.*, Fl. Brit. Ind. iii. 69.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 125.

HEDYOTIS, Linn.

H. psychotrioides, *F. v. M.*, Vict. Nat. vi. 54. Leaves rather large, ovate to elongate-lanceolate, somewhat acuminate, almost membranous, narrowed into a short petiole, glabrous above, pale beneath, the veins hairy, stipules deltoid, short-pointed, fugacious; cymes in a terminal divergently branched panicle, densely clothed with short, appressed, brownish-grey hairs; flowers quite small, 5-merous; bracts minute, narrow-semilanceolate; calyx-lobes roundish-deltoid, very short; tube of the corolla almost entirely enclosed, inside glabrous, turgid; lobes membranous, venulous, about as long as the tube; anthers almost sessile, ovate-ellipsoid, broadest towards the base, and there slightly bilobed, their apex minutely bidenticular, dehiscence introrse; style never much elongated; stigmas very short; epigynous disk beset with minute hairs; fruit small, the 4-valved summit alone emerging, ovate-globular, slightly compressed; placentaries inserted about the middle of the dissepiment; seeds numerous, very minute, shining brown, somewhat oblique-ovate, angular, reticular-foveolate.—*F. v. M.*, l.c.

Hab.: Russell River.—*W. Sayer*.

TRIBE MORINDEÆ.

MORINDA, Linn.

M. hypotephra, *F. v. M.*, Vict. Nat. vi. 55. A climbing shrub, leaves on short petioles, firmly chartaceous, mostly ovate-lanceolate, acuminate, dark-green above, grey and velvety on the under side, stipules fugacious; peduncles short, few or 2 together, seldom solitary; heads small, with only 2 to 5 flowers perfecting their fruits; involucrel pericarp inside beset with rigidulous pale shining hairs, putamen of individual fruits almost ovate, smooth, comparatively thick, dark outside.—*F. v. M.*, l.c.

Hab.: Bellenden-Ker.—*W. Sayer*.

ALLIANCE ASTERALES.

Order COMPOSITÆ.

TRIBE VERNONIACEÆ.

ETHULIA, Linn.

(Name invented by Linnæus, who has not explained its meaning.)

Flower-heads small, corymbose, homogamous. Involucre sub-campanulate; bracts imbricate in many series. Receptacle flat, naked. Corollas all tubular, equal, regular, slender; limb campanulate; lobes

5, narrow. Anthers obtusely auricled. Style-branches subulate. Achenes glandular between the 4-6 prominent ribs; areole broad with a callous ring; pappus none. Branched herbs with alternate serrated leaves.

E. conyzoides, *Linn.*, DC. Prod. v. 12; Fl. Brit. Ind. iii. 227. An erect glabrous or puberulous leafy annual. Leaves 1 to 5 in. long, narrowly or broadly elliptic-lanceolate, acuminate, narrowed and entire at the base, glandular-dotted; serratures coarse, distant. Flower-heads very numerous, $\frac{1}{6}$ to $\frac{1}{4}$ in. diameter; peduncles short or long, florets purplish or reddish.—Fl. Brit. Ind., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 129.

TRIBE EUPATORIACEÆ.

EUPATORIUM, *Linn.*

(Pliny says, derived from Eupator, King of Pontus, who first used some one of the species in medicine.)

Involucre hemispherical, campanulate, or cylindrical, the bracts imbricate in 2 or more series. Receptacle flat or slightly convex, without scales. Florets numerous or few, all tubular, hermaphrodite, 5-toothed. Anthers obtuse at the base. Style-branches elongated, obtuse. Achenes 5-angled, without intermediate striæ. Pappus of a single series of capillary bristles. Perennial herbs or shrubs or very rarely annuals. Leaves usually opposite. Flower-heads mostly corymbose. Green part of the plant often sprinkled with resinous dots.—Fl. Austr. iii. 461.

E. cannabinum, *Linn.*, DC. Prod. v. 180; Fl. Austr. iii. 462. Hemp Agrimony. A perennial with erect stems of 3 or 4 ft., slightly pubescent. Leaves divided to the base into 3 broadly lanceolate coarsely toothed segments, often 4 or 5 in. long, those of the upper leaves smaller and sometimes very narrow, the uppermost leaves rarely undivided. Flower-heads numerous in compact terminal heads. Involucres cylindrical, of few unequal bracts, the inner ones often coloured. Florets usually 5, purple or rarely white.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 130.

TRIBE ASTEROIDEÆ.

BRACHYCOME, *Cass.*

SECTION PAQUERINA.

B. graminea, *F. v. M.*, Fragm. i. 49; Fl. Austr. iii. 514. Plant slender and usually glabrous; rootstock perennial, creeping or sometimes tufted. Stems occasionally short and numerous, more frequently elongated, decumbent or erect, leafy at the base only or above the middle. Leaves linear or linear-lanceolate, mostly acute, narrowed into a long petiole. Involucre above 3 lines diameter, the bracts narrow-oblong, obtuse. Ray-florets numerous, narrow. Style-appendages narrow. Achenes as long as the involucre, obovate, compressed,

with very thick obtuse callous margins, the somewhat concave sides often tuberculate, and the whole achene sometimes glandular. Pappus none.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 130.

B. multifida, DC., Prod. v. 306; Fl. Austr. iii. 520. A branching erect or diffuse perennial or undershrub, usually glabrous. Leaves pinnate with linear segments, sometimes entire but more frequently lobed or pinnatifid, sometimes long and narrow, sometimes short and slightly dilated. Flower-heads rather small, on long slender peduncles. Achenes black, narrow, slightly compressed, the sides tuberculate, the smooth margins often prominent but not winged. Pappus small.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

MINURIA, DC.

M. Cunninghamii, Benth., Fl. Austr. iii. 498. A tall shrub or undershrub, with short slender branchlets, quite glabrous. Leaves narrow-linear, entire, the larger ones acute and above $\frac{1}{2}$ -in. long, the smaller ones often obtuse, thick and almost fleshy. Peduncles terminal, longer than the leaves. Involucre ovoid or almost hemispherical, about 3 lines long, the bracts narrow, acute. Ray-florets numerous, narrow, longer than the pappus; disk-florets usually few. Achenes of the ray glabrous or slightly pubescent, narrow but flat, with a pappus of numerous very fine white capillary bristles; achenes of the disk nearly terete and abortive, the bristles all except 5 or 10 very short.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

M. denticulata, Benth., Fl. Austr. iii. 499. Allied to *M. integerrima*, but more branching, with diffuse or ascending stems, rarely above 8 or 9 in. high, the young shoots and sometimes the whole plant clothed with a white woolly tomentum. Leaves linear or linear-oblong, obtuse, entire or remotely toothed. Flower-heads, florets, and achenes of *M. integerrima*, but the disk-pappus more generally accompanied by a few very short bristles slightly dilated at the base.—Fl. Austr., l.c.

Hab.: Western Plains.

CALOTIS, R. Br.

SECTION ACANTHARIA.

C. microcephala, Benth., Fl. Austr. iii. 504. An erect much-branched undershrub not exceeding 6 or 8 in., more or less hoary-hirsute. Leaves oblong-cuneate, obtuse, entire or toothed, under $\frac{1}{2}$ -in. long, those of the branchlets much smaller. Flower-heads scarcely $\frac{1}{2}$ -line diameter. Involucral bracts narrow-oblong, obtuse. Fruiting heads scarcely more than hemispherical, and not 2 lines diameter. Achenes hirsute, obovate, flat but not winged. Pappus of 6 to 8 barbed awns, nearly equal, and all shorter than the achene.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

OLEARIA, Mœnch.

SECTION ADENOTRICHE.

O. magniflora, *F. v. M.*, *Fragm. v.* 80; *Fl. Austr.* iii. 480. A shrub of 3 or 4 ft. with divaricate branches, the whole plant glabrous and often glutinous. Leaves not numerous, narrow, cuneate, thick, obtuse and often 3-toothed at the end, the larger ones above $\frac{1}{2}$ -in. long, but mostly smaller. Flower-heads large, solitary, terminal. Involucre broadly turbinate, $\frac{3}{4}$ -in. diameter, the bracts numerous, much imbricate, the inner ones often coloured on the margin. Ray-florets 15 to 20, long and narrow; disk-florets numerous. Style-lobes long, with short obtuse appendages. Achenes long, glabrous. Pappus exceeding the involucre, a few of the outer bristles shorter than the others.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 132.

SECTION MERISMOTRICHE.

O. rudis, *F. v. M.*, *Fragm. v.* 75; *Fl. Austr.* iii. 487. An erect shrub or undershrub, more or less scabrous or hirsute with rigid septate hairs or rarely nearly glabrous. Leaves obovate-oblong, oblong-cuneate or broadly lanceolate, obtuse or rarely acute, coarsely and irregularly toothed or nearly entire, mostly 1 to 2 in. long, usually contracted below the middle, but often broader and stem-clasping at the base. Flower-heads rather large, solitary or few together in a terminal corymb, the peduncles longer than the leaves, thickened under the head, without any or only a single linear bract. Involucre hemispherical, the bracts narrow, mostly acute, the inner ones about 4 lines long, the outer scarcely shorter. Ray-florets narrow, numerous; disk-florets scarcely so long as the involucre. Style-appendages very short. Achenes glabrous or nearly so, slightly compressed, strongly striate. Pappus-bristles nearly equal.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 133.

PODOCOMA, Less.; R. Br.

(Name alluding to the beak of the achene, which forms a foot to the pappus.)

Involucre broadly ovoid or hemispherical, the bracts imbricated in several rows, narrow, acute. Receptacle without scales. Florets of the ray female, numerous, crowded in several rows, ligulate but very narrow. Disk-florets few, hermaphrodite, tubular but slender, usually 5-lobed. Anthers obtuse at the base. Style-lobes somewhat flattened, with narrow tips or appendages sometimes almost subulate. Achenes short, flat, produced into a long or short slender beak. Pappus of numerous capillary bristles. Perennial herbs. Leaves alternate. Flower-heads large, terminal, solitary, or very loosely corymbose.—*Fl. Austr.* iii. 492.

P. cuneifolia, *R. Br.*, *App. Sturt Exped.* 17; *Flora Austr.* iii. 493. Stems much branched and almost woody at the base, with

ascending leafy branches rarely above 4 or 5 in. high without the peduncle. Leaves crowded, oblong-cuneate or almost linear, acutely toothed or lobed at the end, narrowed into a petiole, mostly above 1 in. long, ciliate as well as the petiole and stems with long rigid white hairs. Peduncles much longer than the leaves. Involucral bracts numerous, linear-lanceolate, acute, the inner ones $\frac{1}{2}$ -in. long and coloured at the tips, the outer ones shorter, more or less glandular-pubescent as well as the peduncle. Ray-florets almost filiform, scarcely exceeding the pappus; disk-florets about as long as the involucre. Achenes small, obovate, glabrous or silky-hairy, the filiform beak three or four times as long as the achene itself. Pappus fine and white.—Fl. Austr. iii. 493.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 133.

TRIBE INULOIDEÆ.

PLUCHEA.

P. Dioscoridis, *DC.*, Prod. v. 450; Fl. Trop. Afr. iii. 329. Shrub of 6 or more feet in height. Branches terete, striate, more or less puberulous or pubescent towards the extremities, rarely glabrous. Leaves oval-oblong, narrowly elliptical or linear-lanceolate, acute or subacute, narrowed towards the sessile or shortly petiolate often auriculate-cordate base, serrate, denticulate, or sub-entire, puberulous or glabrous, 1 to 2 in. long, $\frac{1}{4}$ to 1 in. wide, membranous. Flower-heads campanulate or ovoid, $\frac{1}{6}$ to $\frac{1}{4}$ in. wide, pedicelled or usually sessile, few together in stalked clusters, collected in ample, much-branched, corymbose or globose terminal panicles. Scales of involucre many-seriate; inner linear or linear-lanceolate, acute or apiculate, sometimes fimbriate-dentate, glabrous or nearly so, caducous; outer shorter, ovate, puberulous or pubescent, acute or obtuse, and apiculate, persistent. Receptacle narrow, naked. Achenes glabrous or nearly so, 4 to 7-ribbed, angles paler. Pappus of 1 series, sordid.—Fl. Trop. Afr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 133.

PTERIGERON, DC.

P. microglossus, *Benth.*, Fl. Austr. iii. 532. Glabrous or slightly glandular-pubescent, the stems rigid, erect, nearly simple or somewhat corymbose, often under 6 in. high. Leaves from cuneate-oblong to linear-cuneate, entire or denticulate, under 1 in. long, rather rigid, narrowed towards the base, not decurrent. Flower-heads broadly ovoid, about $\frac{1}{2}$ -in. long, the inner involucral bracts very acute. Florets numerous, not exceeding the involucre, those of the ray scarcely so long, with a small, narrow, entire or bifid concave lamina. Achenes slightly hairy. Pappus almost plumose.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 133.

LEPTORHYNCHUS, Less.

L. pulchellus, *F. v. M.*, *Fragm.* i. 53; *Fl. Austr.* iii. 610. An erect corymbosely branched annual, rarely 6 in. high, the lower part of the stem sometimes hard so as to appear woody. Leaves linear, acute. Flower-heads small, and rather numerous on filiform peduncles. Involucre broadly turbinate or almost hemispherical, about 3 lines diameter, the bracts imbricate in many rows, with scarious ciliate margins and very small coloured tips, the inner ones stipitate. Florets larger than the involucre, the outer female ones few and slender. Achenes contracted into a short but distinct beak. Pappus-bristles barbellate from the base, 2 or 3 to the achenes of the female florets, 4 or 5 to the others.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 135.

HELICHRYSUM, Vaill.

H. rutidolepis, *DC.*, *Prod.* vi. 194; *Fl. Austr.* iii. 618. A decumbent or loosely branched perennial, almost woody at the base, with a little loose deciduous wool. Leaves oblong, lanceolate or linear, acute or mucronate, mostly narrowed below the middle, but stem-clasping at the base, $\frac{3}{4}$ to nearly 2 in. long. Flower-heads solitary on almost leafless peduncles. Involucre hemispherical, not exceeding $\frac{1}{2}$ -in. diameter and often smaller, the bracts spreading in many rows, the outer short ones tinged with brown and passing into the inner or intermediate ones, which have a more distinct obtuse yellow lamina, rather longer than the florets, and often transversely wrinkled. Florets very numerous, a few of the outer ones female and almost or quite without pappus, the others hermaphrodite. Achenes glabrous. Pappus-bristles minutely serrulate or simple at the base, more distinctly but sparingly barbellate towards the end.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 136.

H. podolepideum, *F. v. M.*, *Rep. Babb. Exped.* 13; *Fl. Austr.* iii. 624. An undershrub densely clothed with a cottony wool. Leaves petiolate, obovate or oblong, 1 to 2 in. long, soft and thick. Flower-heads on almost leafless peduncles of 2 to 4 in. Involucre broadly campanulate, $\frac{1}{2}$ to nearly $\frac{3}{4}$ in. diameter, the bracts numerous, appressed, narrow, with narrow acute or slightly jagged scarious laminae, the longest slightly exceeding the florets, of a pale straw-colour or dirty white. Florets exceedingly numerous, all (or nearly all?) hermaphrodite. Achenes glabrous. Pappus-bristles not very numerous, shortly barbellate.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 137.

GNEPHOSIS, Cass.

G. cyathopappa, *Benth.*, *Fl. Austr.* iii. 571. Rigid erect, and corymbosely branched, some specimens appearing annual and simple at the base, others with a hard and woody base, with numerous stems,

but none above 6 in. high, all nearly glabrous or woolly-tomentose, especially about the inflorescence. Leaves linear, rather short. Clusters of flower-heads turbinate, very numerous in a dense corymb, surrounded by a few small outer empty bracts like the subtending ones, but without the yellow appendage. Receptacle small, convex or obovoid. Partial heads 2-flowered, very shortly stipitate, and usually 2 within the same subtending bract. Bracts scarcely woolly, narrow, with a short broad yellow deciduous appendage, 4 or 5 outer ones of each involucre and the subtending one narrower and more persistent than the 4 or 5 inner very deciduous ones. Pappus cup-shaped, as long as the slender part of the floret, slightly toothed or jagged, falling off with the corolla.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

CALOCEPHALUS, R. Br.

C. Sonderi, *F. v. M.*, Rep. Babb. Exped. 13; Fl. Austr. iii. 575. An erect branching loosely woolly annual, with a hard stem, attaining sometimes above 1 ft. in height. Leaves alternate, linear, the upper ones short and decurrent. Clusters of flower-heads yellow, ovoid or globose, rarely 5 lines long. Receptacles cylindrical, branched. Partial heads stipitate, 2 or 3-flowered. Subtending and outer involucre bracts 2 or 3, in the lateral heads more numerous, in the terminal one narrow, but scarious and woolly-ciliate with small lamina or appendage, a few inner ones broader, less ciliate, with a more prominent yellow lamina. Pappus of several very unequal scales united in a ring or cup at the base, and more or less produced into awns or bristles of which the longer ones are plumose at the end.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

C. Dittrichii, *F. v. M.* in Uhworm's Bot. Centralbl. xxvii. 300; 2nd Syst. Cens. Austr. Pl. 140. (After Lieut. Dittrich, of Mr. Lindsay's Exped.) Annual, woolly-tomentose, neither tall nor much branched; leaves scattered, linear, blunt, nearly flat or somewhat channelled, 4 to 8 lines long, slightly broader at the base; glomerules rather small, terminal, solitary, depressed-globular, the summit of the branchlets forming often a short peduncle; general involucre not exceeding the glomerule, constituted of several rows of bracts; the latter green, narrow, woolly and terminated by a minute scarious yellow glabrous ovate or cordate-roundish lamina; general receptacle small, not conspicuous elevated, bearing numerous flower-heads; bracts constituting the ultimate involucre several, oblong or linear-cuneate, hyaline, one-nerved, woolly only under the small yellow roundish radiating lamina; flowers minute, 11-24 in each head; corolla slender, gradually widening upwards; achenes pale-brown, truncate-ellipsoid, subtle-papillular; pappus very tender, white, formed of very few laxly plumous-bearded somewhat intricate bristles, these at the summit slightly tufted, at the very base connate. On

superficial inspection this plant might easily be passed as an *Angianthus* or *Craspedia*, especially as it was found accompanied by a small variety of *C. pleiocephala*.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

PODOLEPIS, Labill.

P. Siemssenia, *F. v. M.*, Fl. Austr. iii. 607. A slender glabrous much-branched annual of $\frac{1}{2}$ to 1 ft. Leaves linear. Flower-heads small, on filiform peduncles. Involucre turbinate, about 3 lines long, the scarious laminae of the bracts oblong, imbricate, the outer ones short. Ray-florets 3 or 4-lobed, ligulate or irregular, exceeding the longest involucreal bracts; disk-florets with 5 narrow lobes but often slit nearly to the base. Pappus-bristles not numerous, exceedingly fine, not perceptibly barbellate, shorter than the corolla.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 135.

TRIBE HELIANTHOIDEÆ.

AMBROSIA, Linn.

(Name of food of the heathen divinities, as nectar was their drink.)

Capitula unisexual; of male florets small, spicate or racemose, many-flowered, with a broadly hemispherical, gamophyllous, shortly lobed, herbaceous involucre; receptacle nearly plane, with or nearly without filiform paleæ; female capitula sessile or clustered in the upper axils, 1-flowered, apetalous. Male corolla white, regular 5-fid; anthers free or nearly so, base entire. Female involucre ovoid or subglobose, closed over the achene, usually with 4 to 6 tubercles or short spines, narrowed above into a short beak. Herbs or undershrubs, more or less hairy, with alternate (or opposite) bipinnately divided leaves.—*Oliver* in Fl. Trop. Afr.

A. maritima, *Linn.* in Fl. Trop. Afr. iii. 370. (Name from habitat of plant, which is often found growing near the sea.) A coarse annual, woody below, 1 to 3 ft. high (in Queensland, 6 to 8 ft.), whole plant usually very hairy and hoary, much branched. Leaves ovate, bipinnatifid, 1 to 3 in. long; segments obtuse, sometimes toothed. Capitula subsessile, $\frac{1}{8}$ to $\frac{1}{6}$ in. diameter, 15 to 20-flowered, in dense spikes or racemes, male at the top and often female below, arranged in a pyramidal or corymbose terminal panicle, leafy at least below. Male involucre crenate, shortly hemispherical, hispid with upcurved scattered hairs; fruiting involucre somewhat turbinate and angular, with 4 or 5 horns at the top.—*Oliver, l.c.*

This tropical African plant, which is widely spread throughout the Mediterranean region and most warm countries, has during the past year been introduced in fodder seeds, and unfortunately, from all accounts, has taken but too kindly to our soil, and doubtless in a very few years will be as wide-spread as its ally the Bathurst Burr.

TRIBE SENECONIDEÆ.

STUARTINA, Sond.

(After C. Stuart, a botanical collector.)

Involucre ovoid, the bracts imbricate, appressed, without appendages, or the inner ones with recurved horn-like tips. Receptacle without scales. Florets few, those of the circumference female, filiform, those of the disk very few, hermaphrodite, 4 or 5-toothed. Anthers with small fine tails. Style-branches terete, truncate. Achenes obovoid, oblong. Pappus none. Annuals, with the habit of *Gnaphalium*.—Fl. Austr. iii. 656.

S. Muelleri, Sond. in *Linnaea* xxv. 522; Fl. Austr. iii. 657. A small diffuse or slender annual rarely 6 in. high. Leaves on long petioles, nearly orbicular, about $\frac{1}{2}$ -in. diameter, woolly-tomentose or at length glabrous above. Flower-heads very small, in little globular clusters, sessile amongst floral leaves similar to those of the stem, the petioles much longer than the clusters. Involucres narrow, scarcely 1 line long, surrounded by a tuft of long woolly hairs, the bracts appressed, but after flowering 1 to 3 of the inner ones are usually produced into recurved horns. Florets from 5 to 7, of which 1 or 2 in the centre are hermaphrodite. Achenes glabrous or papillose.—Fl. Austr. iii. 657.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 314.

CERATOGYNE, Turcz.

(Alluding to the horn-like style-lobes.)

Involucre cylindrical, of few oblong bracts, green with scarious edges. Receptacle without scales. Florets of the circumference few, female, filiform, 2 or 3-toothed or shortly ligulate; disk-florets few, hermaphrodite, sterile, tubular, 3 or 4-toothed. Anthers short, thin (obtuse at the base?) Style-lobes slender, acute, hispid. Achenes of the ray large, flat, bordered by herbaceous wings, involute on the margins and produced at the top into incurved auricles; those of the disk abortive. Small annuals. Leaves alternate. Flower-heads small, terminal or axillary.—Fl. Austr. iii. 555.

C. obionoides, Turcz. in Bull. Mosc. 1851, ii. 69; Fl. Austr. iii. 555. An annual with erect slender branching stems not exceeding 6 in., and often much smaller, more or less hirsute with soft simple hairs. Leaves petiolate, obovate or oblong, under $\frac{1}{2}$ -in. long, the upper ones small, narrow, and sessile. Flower-heads nearly sessile or on very short axillary leafy peduncles. Involucre a little more than 1 line long, of 4 to 6 oblong bracts. Florets about as long as the involucre, of which 3 or 4 are female and about as many sterile central ones. Achenes of the female florets very soon growing out to at least twice the length of the involucre, remarkable for their broad herbaceous wings, the incurved ciliate auricles at the top as long as the corolla.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 142.

SENECIO, Linn.

S. odoratus, *Hornem.*, DC. Prod. vi. 371; Fl. Austr. iii. 671. A stout erect perennial of 2 to 3 ft., glabrous or rarely with a loose white deciduous wool on the under side of the leaves. Leaves oblong or lanceolate, irregularly toothed, often narrowed below the middle and sometimes almost petiolate, but dilated and stem-clasping, with toothed auricles at the base, attaining 2 to 4 in. in length, the upper ones and those of the side branches sometimes almost linear. Flower-heads small and numerous, in dense corymbs at the ends of the branches, forming usually a large corymbose panicle. Involucre cylindrical, rarely exceeding 2 lines, of about 8 bracts, with 1 or 2 small outer ones rarely wanting. Florets about 10 to 12, all tubular, considerably longer than the involucre when fully out. Achenes slightly pubescent, the pappus inserted on a callous ring more prominent than in the allied species.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 142.

S. anethifolius, *A. Cunn.* in DC. Prod. vi. 371; Fl. Austr. iii. 672. A glabrous branching shrub (or undershrub?) attaining 4 or 5 ft. Leaves crowded, pinnately divided into long narrow-linear or almost filiform segments, either entire or again bearing a few equally narrow lobes. Flower-heads small, numerous, in a very compact corymb. Involucre cylindrical, above 2 to nearly 3 lines long, of about 8 bracts, without any or with 1 or 2 very small outer ones. Florets about 10 or 12, all tubular, longer than the involucre. Achenes glabrous or scabrous-pubescent.—Fl. Austr., l.c.

Hab.: Southern Queensland.

ALLIANCE CAMPANALES.

Order STYLIDIEÆ.

STYLIDIUM, Swartz.

S. graminifolium, *Swartz.* (Hair-trigger Flower.) The colour of the flower of this plant has been found by Mr. W. R. Kefford at Cleveland to vary from the usual deep rose to pure white.

Order GOODENOVIEÆ.

LESCHENAULTIA, R. Br.

L. divaricata, *F. v. M.*, Fragm. iii. 33, 167; Fl. Austr. iv. 43. Summits of the plant leafless, rigid, flexuous, intricately branched, the leaves replaced by small, oblong-linear, distant scales. Calyx-tube 2 to 3 lines long, the lobes narrow, about half as long. Corolla yellow, 6 to 8 lines long, the lobes about as long as the tube, all narrow and expanded, the 3 lower ones winged, the 2 upper ones lanceolate-falcate, not winged. Fruit often above 1 in. long, ripening but very few large thick seeds, and contracting into a neck at the top and also between the seeds.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 147.

GOODENIA, *Sm.*

G. pusilliflora, *F. v. M.*, Key to Syst. Vict. Pl. i. 354. Annual scantily beset with spreading hairs, the lower leaves crowded, pinnatifid or at times shortly lobed, the stem-leaves only present at the inflorescence and small, from rhomboid-cuneate to lanceolate with few teeth or entire. Flowers in erect corymbose racemes without bracteoles; calyx-lobes broadish, expansions of the corolla from yellow to white or purplish. Fruit globular-ovate, nearly 1-celled; seeds few, rather large, collateral, blackish when ripe, surrounded by pale broadish margin.—*F. v. M.*, *l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 150.

SCEVOLA, *Linn.*

SERIES POGOGYNÆ.

S. æmulum, *R. Br.*, Prod.; Fl. Austr. iv. 99. Herbaceous, diffuse, ascending or rarely erect, rather coarse, clothed with rigid mostly appressed hairs or nearly glabrous. Leaves petiolate, obovate or cuneate, coarsely toothed, the lower ones sometimes 2 or 3 in. long, the upper ones smaller, the floral ones sessile, ovate-oblong or almost lanceolate, entire or with a few teeth. Flowers sessile in a spike often 8 to 10 in. long, and much interrupted. Bracteoles linear or linear-lanceolate. Calyx-lobes exceedingly short. Corolla hairy outside, 8 to 10 lines or sometimes nearly 1 in. long. Ovary 2-celled. Style glabrous or hairy, but always with a dense tuft of rigid often purple hairs at the top as long as the indusium. Fruit small, ovoid-rugose.—*Fl. Austr.*, *l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 148.

S. scandens (n. sp.) (Referring to the climbing habit of plant.) A large climbing plant rambling over the surrounding shrubs to the height of 10 or 12 ft. Leaves opposite, bordered with sharp, distant, small teeth, ovate, 3 or 4 in. long with narrow elongated apex and short petiole. Flowers solitary, or 2 or 3 on a short peduncle. Calyx-tube about 2 lines long, with minute teeth. Corolla $\frac{3}{4}$ -in. long, split open on one side to the base, the inside lined with woolly hairs, the outside glabrous and purplish, except the wavy edges which are bright-yellow. Stamens scarcely exceeding the corolla-tube in length. Style narrowly winged, shortly incurved at the top; indusium hairy on the back, besides the dense ring of silky-white hairs surrounding the cup. Fruit not seen.

Hab.: Bellenden-Ker, at about 3,000 ft.

DAMPIERA, *R. Br.*

SECTION EUDAMPIERA.

D. diversifolia, *De Vr.* in Pl. Preiss. i. 403; Fl. Austr. iv. 119. A prostrate perennial or undershrub, extending sometimes to a considerable breadth, with numerous short, dense, leafy branches, quite glabrous in every part. Radical leaves oblong-spathulate or

oblanceolate, 1 to 1½ in. long, all the others lanceolate, oblanceolate, or linear, rarely above ½-in. long, coriaceous, acute, entire or minutely toothed, often concave like those of EPACRIDEÆ. Flowers blue, differing from all other species in being quite glabrous outside, on short axillary peduncles or branchlets, with 1 or 2 leaves and a pair of bracteoles close under the flower. Calyx-lobes ovate-triangular, shorter than the persistent base of the corolla. Corolla about ½-in. long. Ovary 1-celled, with 1 straight ovule erect from the base.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 147.

Order CAMPANULACEÆ.

LOBELIA, Linn.

L. purpurascens, R. Br.

Dr. Thos. L. Bancroft finds this species, which is often a troublesome garden weed, to possess the same properties as *L. inflata*, Linn.—a weed of the United States of America, and there known as “Indian tobacco,” the properties of which, according to Dr. Lindley, Fl. Medica, page 403, are—“Acrid narcotic and most powerful emetic, used in asthma with great advantage. In small doses it is expectorant and diaphoretic, exciting expectoration without the pain of coughing. In such doses as a common teaspoonful of the seeds and leaves, in which quantity irregular practitioners have ventured to give it, it frequently proves fatal in 5 or 6 hours. It has been used instead of tobacco, in the form of enema, in strangulated hernia.”

SERIES HETEROMERÆ.—ALLIANCE ERICALES.

Order EPACRIDEÆ.

TRIBE STYPHELIEÆ.

LEUCOPOGON, R. Br.

SECTION HETERANTHESIS.

L. pleiospermus, *F. v. M.*, Fragm. vi. 41; Fl. Austr. iv. 207. An erect bushy shrub with pubescent branches. Leaves oblong-linear, rather obtuse, with a short rigid point, concave, finely veined underneath, mostly about ½-in. long. Racemes terminal or in the uppermost axils, rather loose, but rarely exceeding the leaves, the flowers small and pedicellate. Bracts and bracteoles small, broad, obtuse, striate, all at the base of the pedicels. Sepals about ½-line long, broad, obtuse, striate. Corolla 1½ line long; the tube twice as long as the calyx, with the exerted part campanulate, the lobes short. Anthers attached near the top, obtuse without sterile tips. Hypogynous disk truncate. Ovary short, broad, 7 to 10-celled; style short. Fruit depressed-globular, smooth, about 2 lines diameter.—Fl. Austr. iv. 207.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 179.

MONOTOCA, R. Br.

M. lineata, R. Br., Prod. 547; Fl. Austr. iv. 230. A tall shrub or small tree closely resembling *M. elliptica* in foliage, but the peduncles are all short, axillary (or lateral), and few-flowered. The

flowers smaller and sessile or nearly so within the very small subtending bract, which is usually persistent or sometimes very minute, or even quite deficient, when the spike is reduced to a single flower. Corolla more open than in *M. elliptica*, with a very short tube, so as to be almost rotate. Fruit ovoid, about 1 line long (or more, round, and nearly 2 lines diameter, 5-celled, and rich red colour).—Fl. Austr. l.c., except the words in parentheses.

Hab.: Bartle Frere.

J. J. Labillardière, in Pl. Nov. Holl. i. 45, is the only one to notice that the fruit of this small tree has 5 cells, which I found to be the case in the specimen I examined from Bartle Frere. I think this is the first time the plant has been found out of Tasmania. The fruit of our plant is roundish, about 2 lines in diameter, and of a rich red colour. It is strange that neither Dr. Hooker in the Tasmanian Flora, nor Mr. Bentham in the Flora Australiensis, gives the number of cells in the fruit; and both refer to Labillardière's description and figure in which the 5 cells are mentioned and shown under his name of *Styphelia glauca*. It is probable that in the typical specimen received by Robt. Brown the fruit was 1-celled by abortion, as stated to be sometimes the case by Labillardière.

TRIBE EPACREÆ.

DRACOPHYLLUM, Labill.

D. Sayeri, *F. v. M.*, Austr. Journ. of Pharm. 1887. The following may be added to the description given by Baron von Mueller, in the Australasian Journal of Pharmacy, March, 1887. Trunk attaining a diameter of 10 in.; bracts 3 in. long, white, shaded with deep rose.

Hab.: Bellenden-Ker.

There are probably two varieties of this species, which may be distinguished by the flowers of the one having a white tube and horizontal rose-coloured lobes, which seem to become somewhat erect in decay. Of the other the flowers are all white, and the corolla-lobes are closely reflexed, and remain so in decay. I found this distinction on all the plants examined, even when growing beside each other.

ALLIANCE PRIMULALES.

Order MYRSINÆ.

MESA, Forsk.

M. haplobotrys, *F. v. M.*, Fragm. v. 161; Fl. Austr. iv. 273. A small tree, quite glabrous. Leaves narrow-ovate to elliptical-oblong, acuminate, entire or irregularly sinuate-toothed, narrowed into a petiole, which is usually short, distantly penniveined with few cross veinlets, 3 to 6 in. long. Flowers in simple racemes, longer or rather shorter than the leaves. Pedicels very short. Calyx-tube very short and adnate to the base of the ovary, but enlarging after flowering; lobes broad, almost acute, about $\frac{1}{2}$ -line long. Corolla-tube broad, nearly as long as the calyx, the lobes broad, much imbricate, at least as long as the tube. Anthers ovate, as long as the flattened filaments. Ovary at the time of flowering more than half superior, tapering into a short style. Young fruit nearly globular, crowned by the closed calyx-lobes.

Hab.: Rockingham Bay.—Fl. Austr., l.c.

ALLIANCE EBENALES.

Order STYRACEÆ.

SYMPLOCOS, Linn.

S. paucistamineus, *F. v. M. et Bail.* A tall shrub, branchlets as well as the petioles, peduncles, and bracts densely beset with spreading brownish hair. Leaves from 3 to 6 in. long, nearly ovate or verging somewhat into a lanceolar form, variously acuminate, remotely or imperfectly serrulated, dark-green above and soon almost glabrous, beneath pale-green and there the keel and main venules bearing copious brownish hairs, chartaceous in texture. Petioles short. Flowering spikes attaining 2 in. in length but frequently shorter, terminal, axillary or lateral, solitary or fascicular, or panicular-connected. Bracts and bracteoles very small and acute. Flowers quite small. Calyx-lobes semi-lanceolate or blunt-elliptical, the outside scantily beset with hairlets. Corolla only about $\frac{1}{6}$ -in. long, pale-coloured, glabrous, the segments hardly connected at the base, about twice as long as the calyx. Stamens 15 or even fewer, mostly shorter than the corolla, inserted near its base. Anthers nearly ovate, yellowish, their insertion suprabasal. Style glabrous, about $\frac{1}{2}$ -in. long. Stigma dilated, somewhat 3-lobed. Ovary 3-celled. Fruit not seen.

Hab. : Harvey's Creek.—*Bellenden-Ker Expedition.*

This species is allied to *S. macrophylla*, *S. ferruginea*, *S. racemosa*, and *S. rosea*, but differs from these species, as from most other congeners already, in the reduced number of the stamens; in that respect it comes near *S. oligandra*, which, however, is a species with glabrous comparatively small leaves, very short inflorescence, and still smaller flowers.

SERIES BICARPELLATÆ.—ALLIANCE GENTIANALES.

Order APOCYNACEÆ.

TRIBE ECHITIDÆ.

LYONSIA, R. Br.

L. straminea, *R. Br.*, *Prod.*; *Fl. Austr.* iv. 321. A woody climber, scaling trees to a great height, the pendulous branches rooting when they reach the ground. Leaves shortly petiolate, ovate-lanceolate or lanceolate, often acuminate, glabrous, smooth and shining above, paler underneath, the primary veins oblique and usually prominent underneath, 2 to 3 or sometimes 4 in. long. Flowers in loose pedunculate trichotomous cymes or panicles, terminal on the young shoots or axillary on the older ones, minutely pubescent. Calyx-segments narrow, acute, about $\frac{3}{4}$ -line long. Corolla-tube about as long as the calyx; lobes lanceolate, acute, about twice as long as the tube, bearded inside at the base with inflexed hairs. Stamens inserted at the base of the corolla-tube; anthers linear, connivent in an exerted cone or cylinder, the basal lobes long and linear. Hypogynous scales large, obtuse. Ovary pubescent. Fruit 2 or 3 in. long, tardily dividing into rather thin follicles, the 2 placentas closely connate by the backs and separating from the follicles in a single plate.—*Fl. Austr.*, l.c.

Hab. : Mount Perry.—*J. Keys.*

Order LOGANIACEÆ.

FAGRÆA, Thunb.

F. racemosa, *Jack.* in Roxb. Fl. Ind. ed. Wall. ii. 35; Fl. Austr. iv. 367. A tall shrub or small tree, quite glabrous. Leaves oval-oblong or rarely ovate, shortly acuminate, rounded at the base, mostly 8 in. to 1 ft. long, on petioles of from $\frac{1}{4}$ to 1 in., the stipules forming a short interpetiolar sheath or ring. Flowers of a dirty yellowish white, in clusters or cymes along the simple rhachis of a raceme-like, terminal, nodding panicle, which is pedunculate between the last pair of leaves, and varies from 2 to 3 in. to above 1 ft. in length. Pedicels thick, 2 or 3 lines long. Calyx-lobes broad, 1 to $1\frac{1}{2}$ line long. Corolla-tube about $\frac{3}{4}$ -in. long, the throat broadly campanulate, the lobes broad, 3 to 4 lines long. Ovary with 2 or rarely 3 parietal placentas, often short in the bud, but meeting in the centre and completely dividing the ovary into 2 or 3 cells after the flowering is over.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 152.

Some fruit and leaf specimens which I brought from Bellenden-Ker, Baron Mueller thinks, may belong to this tree. They, however, differ from all species of which I have descriptions, but not having seen flowers I fully agree with the Baron that it would be inadvisable to give it a distinctive name. It forms a small tree, say 30 ft. high, with wide-spreading head with the leaves clustered at the ends of the branches. Leaves lanceolate to oblong, much tapering towards the base, 6 to 9 or more inches long, coriaceous, on petioles of 1 in. Fruit in terminal short racemes or panicles, nearly globose, over 1 in. diameter, bright-crimson outside, white within, containing numerous seeds.

STRYCHNOS, Linn.

S. Bancroftiana (n. sp.) Snakewood. (After Dr. Joseph Bancroft, who has done so much to make known the medicinal properties of our indigenous plants.) Stems climbing, terete, often reaching the height of 40 or 50 ft., diameter of lower part 2 in. In the upper portion, especially near the inflorescence, furnished with curved tendrils, which are curved like rams' horns, sometimes in pairs. Leaves opposite, glabrous, ovate-acuminate, 4 to 7 in. long, $1\frac{1}{2}$ to 3 in. broad, triplinerved with often another lower pair forming an intramarginal nerve, and prominently reticulated; texture thin, cartilaginous, petioles scarcely $\frac{1}{2}$ -in. long. Inflorescence axillary, racemose, or in racemose panicles 3 or 4 in. long. Flowers not seen. The persistent calyx under the fruit of 5 blunt lobes about a line long and broad. Fruit a globular brown berry, $\frac{1}{2}$ to 1 in. diameter, bearing the erect style. Seeds flat, orbicular, from 1 to 4 in a fruit embedded in a mealy pulp.

Hab.: Tringilburra Creek and Mulgrave River.

I gave a few seeds of this plant to Dr. Thos. L. Bancroft for examination for active properties, and the following is his note:—"The seeds of the new *Strychnos*, like those of the other two Queensland species, are bitter; but they do not contain strychnine or, indeed, any poisonous substance—not at any rate in sufficient quantity, when in the form of an extract, to kill frogs."

ALLIANCE POLEMONIALES.

Order BORAGINEÆ.

TRIBE HELIOTROPIÆ.

HELIOTROPIUM, Linn.

SECTION EUHELIOTROPIUM.

H. asperrimum, *R. Br.*, Prod.; Fl. Austr. iv. 394. A perennial with erect or ascending stems of 1 to 1½ ft., the branches and foliage very scabrous and sprinkled with rigid spreading hairs. Leaves shortly petiolate, oblong or lanceolate, obtuse, with undulate revolute margins but not rugose, 1 to 2 in. long. Spikes short and dense, once or sometimes twice forked, rarely simple, without bracts. Calyx-segments linear or lanceolate, hispid, 2 lines long. Corolla-tube shortly exceeding the calyx, the throat glabrous inside; lobes much plicate, very broad, expanding to ¼-in. diameter. Anthers oblong, very shortly acuminate. Style filiform; stigmatic cone long and narrow, but shorter than the style.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 176.

TRIBE BORAGÆÆ.

ERITRICHIMUM, Schrad.

Calyx deeply divided into 5 segments. Corolla with a cylindrical tube, the throat with 5 minute gibbositities or scales or quite naked, the limb spreading, 5-lobed. Stamens inserted in the tube, the anthers included. Ovary 4-lobed; style filiform, inserted between the lobes, with a small usually capitate stigma. Nuts 4, rugose or reticulate, erect, attached to the shortly pyramidal or convex receptacle by an oblique areole, the inner angle prominent. Seeds without albumen; radicle short. Herbs with the habit, foliage, and flowers nearly of *Myosotis*, but the inflorescence usually with bracts.—Fl. Austr. iv. 406.

E. australasicum, *A. DC.*, Prod. x. 134; Fl. Austr. iv. 406. Stems usually numerous, tufted, diffuse or ascending, rarely nearly simple and erect, mostly under 6 in. long, the whole plant hispid, the hairs often yellowish on the young shoots. Leaves linear, obtuse, the lower ones sometimes almost opposite, rarely exceeding ½-in., the upper ones smaller. Flowers very small (white?) nearly sessile in the axils of the bracts, forming simple one-sided leafy spikes. Calyx-segments very hispid, linear, scarcely 1 line long. Corolla scarcely exceeding the calyx, the lobes shorter than the tube. Anthers small. Style short. Nuts shorter than the calyx, rugose, with much-raised reticulations.—Fl. Austr. iv. 406.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 175.

Order CONVOLVULACEÆ.

TRIBE CONVOLVULÆ.

IPOMÆA, Linn.

I. bona nox, *Linn.*, Sp. Pl. 228. Moon-flower. A tall glabrous twiner, the stems smooth or muricate. Leaves cordate, ovate, entire or lobed, 3 to 8 in. long, acute, the point sometimes much elongated. Peduncles 1 to 5-flowered; flowers large, white; bracts caducous. Sepals $\frac{1}{2}$ -in., usually ovate, obtuse, mucronate. Corolla-tube about 3 in. long, limb 3 to 5 in. diameter. Anthers shortly exerted or sub-included. Capsule narrowed upwards; peduncle at length somewhat thickened.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 159, but probably only a stray from garden culture become naturalised like *I. purpurea*, Roth., *I. Quamoclit*, Linn., *Argyrea speciosa*, Sweet, and others.

I. flava, *F. v. M.*, Fl. Austr. iv. 424. A rather slender glabrous climber. Leaves petiolate, cordate-ovate, mostly acuminate, with large rounded or angular basal auricles, or the upper ones lanceolate-sagittate, 1 to 2 in. long. Peduncles rather long, bearing an irregular dense cyme of very few yellow or nearly white flowers on short pedicels or sometimes the flower solitary. Bracts very small. Sepals ovate or oblong, obtuse, rigid but smooth and almost membranous, 3 or 4 lines long. Corolla campanulate, apparently about 1 in. long. Anthers rather large. Capsule globular, coriaceous, at length wrinkled, about 4 lines diameter. Seeds glabrous.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 160.

I. cataractæ, *Endl.*, Prod. Fl. Norf. Isl. 53. Stems twining, silky-hairy; leaves cordate, entire or 3-lobed, silky-tomentose on the under side, the lateral lobes obtuse, rounded at the base, the middle lobe acuminate or somewhat obtuse. Peduncles hairy, bearing 3 flowers; involucre of several linear leaves of equal length with the calyx; calyx-lobes ovate-acuminate.—*Endl.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 160.

Order SOLANACEÆ.

TRIBE SOLANÆÆ.

SOLANUM, Linn.

S. simile, *F. v. M.*, Trans. Phil. Soc. Viet. i. 19; Fl. Austr. iv. 418. An erect, glabrous, unarmed undershrub or shrub, closely resembling entire-leaved forms of *S. aviculare*, usually not so stout, although attaining 4 or 5 ft. Leaves lanceolate or linear, usually obtuse, contracted into a short petiole, not decurrent, entire or rarely with 1 or 2 lobes on each side near the base, mostly 2 or 3 in. long. Flowers smaller than in *S. aviculare*, few in lateral racemes, with a very short or sometimes scarcely any common peduncle. Calyx and corolla

otherwise nearly as in *S. aviculare*, the corolla not much above $\frac{1}{2}$ -in. diameter. Anthers obtuse, parallel, opening at length down the sides. Berry globular, ovoid or oblong, usually smaller than in *S. aviculare*, and purple. Seeds large.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 161.

S. eremophilum, *F. v. M.* in Linnæa xxv. 432; Fl. Austr. iv. 459. A perennial or undershrub, either small and diffused or tall and erect, the branches, foliage, and inflorescence hirsute with stellate hairs but scarcely tomentose. Prickly rigid and rather long on the stem, leaves, and calyxes. Leaves petiolate, broadly ovate, obtuse, undulate and broadly sinuate-lobed, green on both sides, scarcely above 1 in. long in the specimens seen. Racemes short and few-flowered, the pedicels at length above $\frac{1}{2}$ -in. long. Calyx broadly campanulate, above 3 lines long at the time of flowering, divided to below the middle into broadly lanceolate membranous lobes, much enlarged after flowering. Corolla about $\frac{3}{4}$ -in. diameter, with broad acute lobes, not reaching to the middle. Anthers tapering upwards. Berry globular, almost covered by the enlarged slightly prickly calyx.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 162.

ALLIANCE PERSONALES.

Order SCROPHULARINEÆ.

GLOSSOSTIGMA, Arn.

G. Drummondii, *Benth.* in DC. Prod. x. 426; Fl. Austr. iv. 502. A minute glabrous plant, creeping and rooting at the nodes. Leaves linear-spathulate or oblong, entire, 1 to 2 lines long, but narrowed into a slender petiole sometimes much longer than the lamina. Pedicels usually longer than the leaves. Calyx scarcely above $\frac{1}{2}$ -line long, 3-lobed, one lobe often longer than the others. Corolla slightly exceeding the calyx, with short rounded lobes not fringed. Stamens 4, as long as or longer than the corolla. Capsule nearly globular, not exceeding the calyx, opening loculicidally in 2 valves.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 164.

RHAMPHICARPA, Benth.

Calyx campanulate, 5-lobed. Corolla-tube long and slender, straight or slightly curved; lobes 5, obovate, nearly equal or the 2 upper (inside in the bud) rather smaller. Stamens 4, in pairs; anthers 1-celled, vertical, obtuse. Capsule ovate, compressed or turgid, acuminate, with a straight or oblique beak, opening loculicidally in 2 valves. Erect branching glabrous herbs, drying black and perhaps parasitical. Lower leaves opposite, upper ones alternate, entire or the lower ones pinnately divided. Flowers in terminal racemes, usually without bracteoles.—Fl. Austr. iv. 517.

R. longiflora, *Benth.* in *Comp. Bot. Mag.* i. 368 ; *Fl. Austr.* iv. 518. An erect slender but rigid branching annual, more or less scabrous, from under 6 in. to nearly 1 ft. high. Leaves pinnately divided into linear-subulate segments, rather short and distant, or sometimes again toothed or pinnate, the whole leaf usually above 1 in. long. Flowers in the upper axils, on pedicels of $\frac{1}{2}$ to 1 in., without bracteoles. Calyx broadly campanulate, 2 to 3 lines long, the lobes ending in fine points. Corolla-tube slender, about 1 in. long when perfect, with a campanulate throat, the lobes broad, varying in size, but always 2 or 3 times shorter than the tube. Capsule ovate, acuminate, without prominent margins, the beak nearly straight or somewhat oblique in the Australian form.

Hab. : Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 165.

Order GESNERACEÆ.

TRIBE CYRTANDREÆ.

CYRTANDRA, Forst.

Calyx free, tubular, ovoid-campanulate or roundly expanded, 5-fid-or 5-partite. Corolla-tube cylindrical or funnel-shaped, 2-lipped, deciduous or persistent; teeth 5. Stamens, 2 perfect, 2 or 3 rudimentary, included or shortly exerted; filaments arcuate, anthers connivent or coherent, cells parallel or divergent. Disk annular or cupulate. Ovary superior, ovoid or oblong; style long or short; stigma dilated, concave, or more or less distinctly 2-lipped. Fruit fleshy, indehiscent, globose, ovoid-oblong or linear. Seeds very numerous, minute, usually dotted. Small or large shrubs or trees, villous or glabrous. Leaves opposite, equal or unequal, or one of each pair rudimentary or wanting. Flowers usually white or yellow, in axillary fascicles, capitate or cymose. Bracts small or the exterior ones large, distinct or connate in an involucreum.

C. Baileyi, *F. v. M.* (n. sp.) A soft-wooded shrub of about 8 ft. in height. Branchlets when young somewhat beset with brown interwoven hairlets. Leaves alternate, rather large, attaining 8 in. in length, the opposite rudiments about $\frac{1}{4}$ -in. long, short-stalked, thinly chartaceous, from ovate to elongate-lanceolate, at the base almost cuneate but inequilateral, on both sides dull-green though pale beneath, nearly glabrous, narrow or short-acuminate, towards the upper end undular-denticulated, their primary lateral veinlets slightly prominent, the ultimate venules concealed, the opposite rudiment bract or stipule-like, about as long as the leafstalk or shorter, semilanceolate-linear, pointed. Flowers nearly white, singly, opposite to a leaf, glabrous. Pedicels thin, scarcely as long as the calyx or at times longer, say about $\frac{1}{2}$ -in. long. Calyx-lobes about half the length of the tube, the lower deltoid, the upper much united and minutely apiculate. Corolla rather more than double as long as the calyx. Stamens—fertile inserted near the middle of the corolla, sterile placed somewhat further



down. Anthers (fertile) almost narrow-ellipsoid, disk short and blunt-lobed. Style glabrous, about half as long as the corolla. Stigma dilated, somewhat truncated; ovulary narrow-pointed, glabrous. Fruit oblique-ellipsoid, about $\frac{2}{3}$ -in. long. Seeds very numerous, narrow-ellipsoid, almost smooth, dark-brown outside.

Hab.: Russell River.—*Bellenden-Ker Expedition*. Specimens with flower.

Fruit specimens, *W. Sayer*, at about 5,000 feet altitude, Bellenden-Ker, Baron Mueller, to whom I am indebted for the above description, writes me; but as Mr. Sayer was not on Bellenden-Ker, but on a mountain called by the natives Chickaboogalla, the altitude of which is about 3,970 feet, he probably gathered his specimens near the locality where I got my flowering shoots. The shrub was not abundant and I only secured three or four specimens.—*F.M.B.*

Systematically this species could best be placed near *C. triseipala*, as that congener has also alternate leaves; but the flowers of that plant are usually placed in twos and threes, leaf-opposed; the calyces are split and the style is not glabrous.—*F. v. M., l.c.*

ALLIANCE LAMIALES.

Order MYOPORINEÆ.

PHOLIDIA, R. Br.

P. Dalyana, *F. v. M.*, Fl. Austr. v. 10. An erect shrub, hoary or almost silvery, with a close more or less scaly indumentum; branches rigid, with angles decurrent from the leaves. Leaves opposite or nearly so, about 1 in. long, narrow-linear with hooked points. Flowers solitary, nearly sessile, the corolla not much contracted at the base, and the ovary densely villous, 2-celled.

Hab.: Wilson River.

EREMOPHILA, R. Br.

E. Freelingii, *F. v. M.*, Proc. Roy. Soc. Tasm. iii. 295; Fl. Austr. v. 25. An erect shrub, more or less hoary-tomentose and glutinous, or the foliage at length glabrous. Leaves crowded, lanceolate, acute, entire, contracted into a rather long petiole, $\frac{3}{4}$ to $1\frac{1}{2}$ in. long. Peduncles solitary, mostly 2 or 3 lines long. Calyx-segments much imbricate, ovate or lanceolate, rather acute, or acuminate, not dilated upwards, the outermost usually much broader and larger than the inner ones. Corolla above 1 in. long, pubescent outside, the tube contracted above the ovary, then enlarged, the 4 upper lobes rather broad and acute, the 2 uppermost more united than the others, the middle lower lobe broader and obtuse. Stamens included. Ovary ovoid, with 2 or 3 pairs of ovules in each cell, suspended from short, broad, flat, erect, superposed funicles. Drupe with a 4-celled putamen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 4th Suppl. to Syst. Cens. Austr. Pl.

E. Willsii, *F. v. M.*, Fragm. iii. 21, t. 20; Fl. Austr. v. 26. Branches and foliage more or less covered with a glandular rust-coloured pubescence and somewhat glutinous. Leaves obovate-oblong, obtuse or almost acute, entire or serrulate, contracted at the base

but not petiolate, about 1 in. long. Pedicels solitary, hispid, short. Calyx-segments much imbricate, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, and enlarging after flowering, the outermost almost ovate, the innermost narrow, all acute. Corolla glabrous, or slightly pubescent outside, "blue," the lobes all broad, obtuse or very shortly acute, the middle lower one rather broader than the others. Stamens included. Ovary narrow, densely tomentose, with 2 pairs of ovules in each cell.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 174.

Order LABIATÆ.

TRIBE MONARDEÆ.

MONARDA, Linn.

(After Nic. Monárda or Monárdes, a physician of Seville in the sixteenth century.)

Calyx tubular, elongated, 15-nerved, nearly equal 5-toothed; throat villous inside, rarely almost naked. Corolla with an exserted or inclosed tube, glabrous or pubescent inside, exannulate; throat dilated a little; limb 2-lipped, lips linear or oblong, nearly equal; upper lip erect, entire or emarginate; lower lip spreading, shortly trifid at the apex, the lateral lobes ovate, obtuse; the middle one narrower, oblong, retuse or emarginate. Stamens 2 (inferior), ascending, usually exserted from the upper lip of the corolla; the rudiments of the two superior ones almost wanting; filaments toothless, inserted at the throat of the corolla; anthers linear, somewhat 2-celled; cells divaricate, confluent, with connate margins. Style almost equally bifid at top; stigmas minute, terminal. Nuts dry, smooth. Herbs, with entire usually toothed or crenated leaves. Flowers collected into dense whorls, supported by bracts, which are often coloured.

M. aristata, *Benth.*, Lab. 318. An erect branching herb slightly hoary, and all parts hairy. Leaves lanceolate, tapering much towards the base, 2 or 3 in. long, serrate. Flowers in dense whorls, white; bracts ciliate, sessile, usually of a purple colour, ending in long awns. Calyx-tube striate, much bearded at the throat; lobes long, subulate. Corolla white, spotted with purple; tube about as long as the calyx-lobes. Stamens shorter than the upper lip.

Hab. : Harrisville, from whence it was received from Rev. J. Coles, as a plant becoming naturalised in that locality. It is a native of Arkansas, Texas, and other parts of America, from whence it has been introduced in garden seeds.

TRIBE PROSTANTHEREÆ.

PROSTANTHERA, R. Br.

P. Leichhardtii, *Benth.*, Fl. Austr. v. 106. A bushy shrub, the branches slightly pubescent, the foliage glabrous or nearly so. Leaves distinctly petiolate, oblong or obovate-oblong, obtuse, entire, rather thick, flat, rarely exceeding $\frac{1}{2}$ -in. Flowers apparently all axillary, on very short pedicels, probably without bracts. Calyx about 3 lines

long when in flower, somewhat enlarged afterwards, the tube broad, scarcely striate, the lips equal, entire, scarcely half as long as the tube. Corolla slightly hairy outside, the tube shortly exceeding the calyx and scarcely dilated, the upper lip 4 or 5 lines long, concave, emarginate, the lobes of the lower lip much shorter, all fringed with long hairs. Stamens nearly as long as the upper lip of the corolla; anthers without any prominent appendages to the connective.—Fl. Austr., l.c.

Hab.: Bottle-tree Creek, Leichhardt.—*Benth., l.c.*

WESTRINGIA, Sm.

W. rosmariniformis, *Sm.*, Tracts. 282, t. 3; Fl. Austr. v. 128. A robust bushy shrub of several feet, the branches, under side of the leaves, and calyxes hoary or silvery white with densely appressed hairs. Leaves in whorls of 4, oblong-lanceolate, lanceolate, or linear, acute or obtuse, $\frac{1}{2}$ to 1 in. long, coriaceous, glabrous and shining on the upper side, the margins more or less recurved or revolute. Flowers almost sessile, all axillary, with short linear bracts. Calyx about 3 lines long, the teeth acute, varying from half the length to nearly the length of the tube. Corolla pubescent outside, not twice as long as the calyx, the upper lip deeply 2-lobed, equal to or longer than the tube, the lower lip scarcely so long. Anthers of the staminodia with 2 linear, clavate, parallel lobes. Nuts glabrous, reticulate-rugose.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 171.

SUBCLASS MONOCHLAMYDEÆ.—SERIES CURVEMBRYEÆ.

Order AMARANTACEÆ.

TRIBE AMARANTEÆ.

AMARANTUS, Linn.

A. pallidiflorus, *F. v. M.*, Fragm. i. 140; Fl. Austr. v. 214. An erect or decumbent annual of 1 or 2 ft. Leaves on long petioles, ovate, obtuse, 1 to 3 in. long, rather thin and of a pale green. Lower cymes or clusters of flowers axillary, the upper ones in dense spikes forming a terminal panicle of $\frac{1}{2}$ -ft. or more, the central spike very long, the lateral ones short. Bracts and bracteoles scarious, lanceolate or ovate-lanceolate, very acute, about as long as the claws of the perianth-segment or rarely as long as the whole perianth. Perianth-segments 5, lanceolate at the time of flowering, those of the females when in fruit with broad erect claws of about $\frac{1}{2}$ -line, and expanded into broadly ovate, mucronate-acute, spreading, and scarious laminæ, rather longer than the claws. Pericarp very rugose, membranous, circumsciss, with a thick apex and 3 fine styles.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 49.

CYATHULA, Lour.

Sepals 5, scarious, 1-nerved, acuminate or with hooked rigid awns. Stamens 5, connate, united below with the linear lacerate or 2-fid

staminodes into a cup (whence the name); anthers 2-celled. Ovary obovoid; style filiform, stigma capitellate; ovule 1, pendulous from a long basal funicle. Utricle ovoid, indehiscent, top areolate. Seeds inverse, oblong, testa coriaceous; embryo annular, cotyledons linear, flat. Herbs or undershrubs. Leaves opposite. Flowers clustered, clusters solitary, spicate and reflexed in fruit, or in dense, globose, solitary or spicate heads; perfect flowers 1 or 2 in each cluster, surrounded by imperfect ones reduced to sepals, with rigid hooked awns.—*Hook.* in *Ind. Flora.*

C. prostrata, *Blume*, *Bijd.* 549; *Fl. Brit. Ind.* iv. 723. Stems ascending from straggling almost prostrate branches usually slender and from 6 in. to 2 ft. high, clothed as well as the foliage with close, white, silky hairs. Leaves petiolate or nearly sessile, elliptic, rhomboid-oblong, or the lower ones subpanduriform and obtuse, 1 to 2 in. long. Spikes very slender, terminal, 4 to 6 in. long, sometimes branched, silky-pubescent. Sepals oblong or somewhat lanceolate. Stamines 2-fid or retuse. Seeds ovoid-oblong.

Hab.: Scrubs of the Mulgrave River. I was in some doubts of this plant, so referred it to Baron Mueller, who considers it the above Indian weed.

TRIBE GOMPHRENEÆ.

GOMPHRENA, Linn.

G. conferta, *Benth.*, *Fl. Austr.* v. 257. Erect, hard, stout, and probably tall, but apparently annual, the specimens very imperfect, the branches bearing a few white woolly hairs and linear or linear-lanceolate leaves of 1 to 2 in. Spikes ovoid or cylindrical, 3 or 4 lines diameter and some of them above $\frac{1}{2}$ -in. long, sessile and crowded on very short axillary branchlets, and surrounded by broadly lanceolate, herbaceous, softly villous, floral leaves about as long as the spikes. Bracteoles very broad and obtuse, rather longer than the perianth; bracts shorter and more acute. Perianth-segments scarcely $1\frac{1}{2}$ line long, woolly outside to above the middle, the glabrous white tips very obtuse in the outer ones, less so and narrower in the inner. Staminal tube short; filaments dilated at the base, acuminate, without intervening teeth or lobes. Style short.

Hab.: Cape Flinders.—*A. Cunn.* in *Fl. Austr.* 257.

Order CHENOPODIACEÆ.

SUBORDER CHENOPODIEÆ.—SERIES CYCLOLOBEÆ.

TRIBE EUCHENOPODIEÆ.

RHAGODIA, R. Br.

R. crassifolia, *R. Br.*, *Prod.*; *Fl. Austr.* v. 154. A dwarf or diffuse much-branched scrubby shrub, or the branches somewhat elongated in narrow-leaved forms, nearly green or more or less hoary-tomentose. Leaves mostly alternate, linear or scarcely oblong in the

typical form, rarely cuneate or almost obovate in some varieties, obtuse, contracted into a short petiole, rather thick, flat or concave, rarely $\frac{1}{2}$ -in. long. Flowers and fruits small, clustered or rarely solitary, in short terminal, nearly simple, interrupted spikes or slightly branched panicles. Fruiting perianth not exceeding the fruit.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

· CHENOPODIUM, Linn.

C. cristatum, *F. v. M.*, Fragm. vii. 11; Fl. Austr. v. 163. Diffuse or procumbent, with ascending flowering branches of 1 ft. or more, the whole plant slightly glandular-pubescent. Leaves on long petioles, from ovate to oblong-lanceolate, obtuse, coarsely toothed, narrowed at the base, $\frac{1}{2}$ to 1 in. long, green and glandular-scabrous on both sides. Flowers in dense globular clusters, all axillary. Perianth-segments linear, erect, not incurved, acute, about 1 line long when in fruit, the keel dilated into a broad fringed crest or wing. Fruit ovoid, erect, enclosed in the perianth. Styles very slender.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

TRIBE ATRIPLICEÆ.

ATRIPLEX, Linn.

SERIES PANICULATÆ.

A. stipitata, *Benth.*, Fl. Austr. v. 168. An erect, bushy, rather slender shrub, scaly white or somewhat fulvous all over. Leaves from obovate to narrow-oblong, very obtuse, entire, contracted into a short petiole, mostly rather thick, $\frac{1}{2}$ to $\frac{3}{4}$ in. long. Flowers dioecious, the males numerous in little globular clusters scarcely 2 lines diameter, all distinct and somewhat distant, in slightly branched terminal panicles or almost simple spikes; females in smaller clusters, the lower ones often solitary in the axils, the upper ones in a somewhat leafy spike or panicle, some of them sessile, ovoid or globular, shortly 2-lobed, enclosing an apparently perfect ovary, but soon falling off, the greater number more or less stipitate at a very early age with broad flat valves. Fruiting perianth on a slender stipes of 2 or 4 lines, with a small campanulate tube half enclosing the fruit; valves flat, reniform, entire, 4 or 5 lines broad. Seed orbicular, flat, the radicle superior.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

A. Quinii, *F. v. M.*, Vict. Nat. v. 96. (After Edward Quin, of Tarella, Riverina.) Plant slightly shrubby, comparatively dwarf, grey from minute appressed scales. Leaves from rhomboid to linear-lanceolate, almost or quite entire. Male flowers mostly in clusters at the ends of the branchlets; female flowers mostly lower down, few or 2 together or some singly scattered, their stalks finally conspicuous, hemi-ellipsoid-cylindric; the two segments of the involucre renate or

somewhat verging into a rhomboid form, entire or distantly toothed, upwards rather membranous, at their base bearing a small but prominent and quite renate appendage. Fruit at the base of the involueral segments close to the stalk. Radicle ascending.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

SERIES GLOMERATÆ.

A. angulata, *Benth.*, Fl. Austr. v. 174. Plant mealy or almost scaly-tomentose. Leaves on long petioles which are winged below the lamina, orbicular or broadly rhomboid, very obtuse, angular or sinuate, $\frac{3}{4}$ to $1\frac{1}{2}$ in. diameter. Flowers monœcious, the male clusters in the upper axils accompanied by a few females, or 2 or 3 forming a short terminal spike, the lower axillary clusters small and all female. Fruiting perianth raised on a stipes of about 1 line, with a turbinate compressed tube of a little more than 1 line, and large green toothed valves 3 lines broad or more. Fruit enclosed in the tube, but raised on a short solid base. Radicle superior.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

TRIBE CHENOLEÆ.

KOCHIA, Schrad.

K. triptera, *Benth.*, Fl. Austr. v. 185. A low, stout, diffuse or spreading shrub or undershrub, the foliage and often the branches also quite glabrous and somewhat glaucous. Leaves rather crowded, linear, semi-terete, often acute, rather thick, $\frac{1}{4}$ to above $\frac{1}{2}$ in. long. Flowers solitary in the axils. Fruiting perianth with a broadly turbinate tube, above 1 line long below the horizontal wings, with 3 or 4 very prominent vertical wings, and more than half of it occupied by a thick solid base below the fruit, the upper part of the perianth within the wings flat and closing over the fruit as in most *Kochias*, the horizontal wings united in a single rigidly membranous ring expanding to 4 or 5 lines or even $\frac{1}{2}$ -in. diameter and quite concealing the vertical wings. Styles usually 3.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

K. spongiocarpa, *F. v. M.*, Vict. Nat. iii. 92. Plant erect, branches whitish velvet-downy. Leaves $\frac{1}{3}$ to $\frac{1}{2}$ in. long, semi-cylindrical, rather long, somewhat pointed, glabrous; style enclosed; stigmas generally 2, sometimes bifid; fruit-bearing calyx nearly $\frac{1}{2}$ -in. wide, pale-brown, quite spongy, almost semi-globular, slightly wrinkled, glabrous, the flat summit expanding into a narrow undivided membrane, the transverse of it very subtle.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

K. stelligera, *F. v. M.*, Fragm. vii. 13; Fl. Austr. v. 189. A diffuse or procumbent undershrub spreading to 1 ft. or more, with numerous, rather slender, ascending branches not above 6 in. high,

clothed as well as the young foliage with a white cottony wool, wearing off from the older leaves. Leaves alternate, sessile, narrow-linear, erect or spreading, very soft, 1 to 3 lines long. Flowers small, solitary in the axils, but often crowded in woolly tufts at the ends of the branches, the perianth nearly globular, woolly outside, with short lobes about $\frac{1}{2}$ -line long. Stamens included. Styles 2, rather long, scarcely united at the base. Fruiting perianth nearly $1\frac{1}{2}$ line diameter, of a thick hard consistence, the teeth hemispherical, quite smooth, without vertical wings, the basal hollow small, the summit very flat, bordered by a very narrow, rather rigid, horizontal wing, with 10 to 12 short, rigid, equally radiating teeth or points.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

THRELKELDIA, R. Br.

T. proceriflora, *F. v. M.*, Fragm. viii. 38. A glabrous glaucous plant. Leaves 5 to 10 lines long, narrow-linear, somewhat fleshy. Flowers axillary, solitary. Calyx elongated, at length 4 or 5 lines long and scarcely a line thick, slightly contracted at the base; scales at the mouth 5, minute, obtuse.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 52.

SCLEROLENA, R. Br.

S. lanicuspis, *F. v. M.*, Fl. Austr. v. 195. A low undershrub or shrub, the stems rather stout, and not exceeding 6 in. in our specimens, densely clothed with a loose cottony wool, more silky and appressed on the leaves. Leaves rather crowded, linear, thick and soft, often above $\frac{3}{4}$ -in. long. Fruiting perianth similar to *S. diacantha* but rather larger, $1\frac{1}{2}$ to 2 lines long, and very densely clothed with long silky or woolly hairs, the 2 dorsal opposite spines divergent, nearly equal, 1 to 2 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

ANISACANTHA, R. Br.

A. bicuspis, *F. v. M.* in Trans. Vict. Inst.; Fl. Austr. v. 200. A rigid, stout, but compactly branched shrub or undershrub, the specimens seen not above 6 in. high and quite glabrous. Leaves linear, semi-terete, acute, from $\frac{1}{4}$ -in. to above $\frac{1}{2}$ -in. long. Flowers closely sessile and semi-adnate. Fruiting perianth 2 or 3 lines long, the tube ovoid, very hard, with 3 diverging spines, of which 2 (either equal or unequal) varying from $\frac{1}{4}$ to 1 in. long, the third small, sometimes reduced to a tubercle, sometimes 1 line long; perianth-lobes membranous, obtuse, erect or inflexed. Styles 2, united to above the middle into a hard column. Pericarp usually hardened. Seed obliquely erect with a superior radicle.—Fl. Austr., l.c.

Hab.: Cooper's Creek.

SERIES MICREMBRYEÆ.

Order PIPERACEÆ.

TRIBE PIPEREÆ.

PIPER, Linn.

P. (Chavica) Mestoni (n. sp.) Queensland Long Pepper. A large climber adhering to the stems of trees by adventitious roots. Leaves broadly ovate-acuminate, rounded at the base, and nearly or quite equal-sided, 6 to 8 in. long, 4 to 5 in. broad, on petioles of about $\frac{3}{4}$ -in., septuplinerved. Spikes unisexual, leaf-opposed; males not seen; female or fruiting spikes of a brownish colour, formed by the firmly united fruits, nearly 2 in. long and 5 lines diameter at the base, terete, tapering towards the end. Peduncles about $\frac{3}{4}$ -in. long. Styles rather prominent, 2-lipped.

Hab.: Harvey's Creek, Russell River.

This new species is nearly allied to *P. Chaba*, Hunter, Fl. Brit. Ind. v. 83 (the *Chavica peepuloides*, Miq., of Wight Is. t. 1927).

It is worthy of remark that the present plant is nearly allied to the Long Pepper of commerce.

SERIES DAPHNALES.

Order LAURINEÆ.

TRIBE PERSEACEÆ.

ENDIANDRA, R. Br.

E. Muelleri, *Meissn.* in DC. Prod. xv. i. 500; Fl. Austr. v. 302. A tree of medium size, glabrous except a minute ferruginous tomentum on the inflorescence and sometimes on the young shoots. Leaves ovate-elliptical or broadly oblong, acuminate, cuneate at the base, green on both sides, the primary veins more prominent and the reticulations less so than in *E. Sieberi*, mostly 3 to 5 in. long. Panicles axillary, loose, much shorter than the leaves. Pedicels longer than the flowers. Perianth-tube thick and fleshy, broadly turbinate, $1\frac{1}{2}$ line diameter, the lobes small and connivent. Stamens 3, with broad flattened glands; staminodia of the outer series deficient, of the inner series small or obsolete.—Fl. Austr., l.c.

Hab.: Logan River.—*Rev. B. Scortechini.*

Order PROTEACEÆ.

SUBORDER NUCAMENTACEÆ.—TRIBE PROTEEÆ.

ISOPOGON, R. Br.

I. anemonifolius, *Knight*, Prot. 93; Fl. Austr. v. 347. A shrub 4 to 6 ft. high, glabrous except the cones or the branches, any young shoots pubescent. Leaves on rather long petioles, once or twice

trifid or pinnately divided, with linear or linear-cuneate entire or 2 or 3-lobed segments, usually diverging or falcate, mostly pungent-pointed, rather rigid and obscurely veined, the whole leaf 2 to 4 in. long and nearly as broad. Cones sessile, solitary or in clusters of 2 or 3 at the ends of the branches, nearly globular, $\frac{1}{2}$ to $\frac{3}{4}$ in. diameter. Outer bracts numerous, but mostly small and narrow. Cone-scales very numerous, woolly outside, the expanded, truncate, imbricate ends becoming glabrous with very minute points. Perianth yellow, 5 to 6 lines, glabrous except the terminal tufts of short hairs. Style-end clavate, minutely papillose, pubescent, separated by a short constriction from the bulbous base of the nearly glabrous brush. Receptacle oblong or cylindrical.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 113.

TRIBE PERSOONIÆ.

PERSOONIA, Sm.

SECTION AMBLYANTHERA.

P. fastigiata, *R. Br.*, Prot. Nov. 13; Fl. Austr. v. 393. A slender-branched slightly pubescent shrub; the leaves rather crowded, incurved, narrow-linear, scarcely acute, attenuate at the base, the margins recurved or revolute, $\frac{3}{4}$ to $1\frac{1}{2}$ in. long, more or less scabrous-pubescent. Pedicels slender, solitary or clustered in the axils (the floral leaves abortive) 1 to 2 lines long. Perianth minutely pubescent or hirsute, 3 to $3\frac{1}{2}$ lines long. Anther-connective not produced beyond the cells. Ovary densely hirsute, on a glabrous stipes; style elongated; ovules 2.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 115.

P. lanceolata, *Andr.*, Bot. Rep. t. 74; Fl. Austr. v. 395. An erect shrub of several feet, the branches and young shoots hoary-pubescent, the adult foliage glabrous or nearly so. Leaves lanceolate or oblong-lanceolate, mucronate-acute, much contracted into a short petiole, mostly $1\frac{1}{2}$ to 2 in. long, flat, the midrib slightly prominent, the margins scarcely nerve-like, otherwise veinless. Pedicels exceedingly short, solitary or 2 together, pubescent, rarely 1 line long. Perianth about 5 lines long, pubescent with very short appressed hairs, the segments without terminal points. Anther-connective not produced beyond the cells. Ovary glabrous, contracted into a short stipes; style elongated; ovules 2.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 115.

CYANOCARPUS (n. gen.)

(So named from its bright-blue fruits.)

Flowers hermaphrodite. Perianth regular, in a straight tube before expansion; segments valvate, recurved when expanded. Anthers on short filaments. Hypogynous glands 4, distinct, orbicular-ovate, equal. Ovary sessile, with long straight style; stigma terminal, clavate. Fruit a drupe with succulent juicy exocarp and cartilaginous

endocarp, 1-seeded. A slender evergreen tree with alternate serrated leaves. Flowers in axillary racemes, pedicels connate in pairs. Fruit a juicy bright-blue drupe.

C. Nortoniana (n. sp.) (After the Hon. A. Norton, who has always taken a deep interest in Australian botany.) A small tree, the branches when young clothed with dark-reddish short hairs. Leaves alternate, broadly lanceolate or ovate-lanceolate, 4 to 7 in. long, 1 to 3 in. broad, irregularly but sharply serrate, the apex more or less elongated; petioles short, which with the primary veins are clothed with rusty hairs like the branchlets; texture membranous, upper surface glossy; primary veins prominent, joining some distance within the margin. Racemes axillary, 2 to 4 in. long, ferruginous. Flowers in pairs, the pedicels short, connate, straight and slender in the bud, about 3 lines long, the segments closely revolute when expanded, glabrous inside. Filaments equal in length with the anther, incurved. Style erect, glabrous. Stigma clavate. Ovary sessile, very hairy. Fruit a bright-blue oval juicy drupe, about $\frac{1}{2}$ -in. long, more or less hairy, and bearing the persistent, slender, straight style.

Hab.: Tringilburra Creek and creeks off Russell River.

A lovely tree when in full fruit; wood red, with the peculiar grain of the order.

SUBORDER FOLLICULARES.—TRIBE GREVILLEÆ.

HELICIA, Lour.

H. Whelani (n. sp.) (After Sergeant E. J. Whelan). A glabrous tree of medium size. Trunk erect, bark smoothish, not thick, seldom more than $\frac{1}{2}$ -in. on old trees; the branches opposite or whorled, reddish when young; wood with the usual grain of the order and deep-red. Leaves opposite or more frequently at the ends of the branches in whorls of 3 to 6, petiolate, lanceolate, 4 to 7 in. long, 1 to 3 in. broad, the points more or less elongated, midrib prominent; reticulations close, prominent in the dried leaf but scarcely so when fresh, margins entire. Flowers in terminal racemes of about 2 in. long, judging from the fruit specimens, but no flowers seen. Fruit indehiscent or slightly opening along the ventral suture, slightly ferruginous, globular, 2 or more inches in diameter, over $2\frac{1}{2}$ in. when containing twin nuts; putamen globular when solitary, hemispherical when 2 in a fruit, of a light-brown, glossy and hard; testa dark-brown and wrinkled like the kernel.

Hab.: Abundant along Tringilburra Creek, and thence to Whelanian Pools.

The nuts seem to be largely used by the natives of this locality for food, as we found large quantities of the broken shells as well as the whole nuts at all their camps.

ORITES, R. Br.

O. fragrans (n. sp.) (Name referring to the fragrant flowers.) A tall shrub or small tree with dense spreading head, glabrous except the inflorescence and a slight hoariness on the young growth; the twigs or branches bearing the flowers, purplish or reddish. Leaves

alternate, ovate-obtuse, emarginate or somewhat pointed, $2\frac{1}{2}$ to $3\frac{1}{2}$ in. long, and 1 to 2 in. broad; the margins quite entire, pale on the under surface; texture thin coriaceous, on slender coloured petioles of about 1 in. Spikes numerous in the upper axils, about 2 or 3 in. long; at an early stage closely covered with broadly ovate, apiculate, prominently striated, imbricate, fugacious bracts, of a bright crimson colour. Rhachis densely ferruginous pubescent. Perianth 3 or 4 lines long, segments much recurved in the expanded flower. Filaments broad, attached to the middle of the segment; anther about as long as the filament. Ovary purple and silky, but less so than the style, which is very hairy and as long as the perianth.

Hab.: The highest peaks of Bellenden-Ker and also Bartle Frere.

A most attractive plant from the rich colour and fragrance of the inflorescence.

GREVILLEA, R. Br.

G. Kennedyana, *F. v. M.*, Proc. Roy. Soc. Vict. xxiv. 172. (After Mrs. M. B. Kennedy, of Wonnaminta.) A shrub of about 5 ft., more or less covered with short, appressed, greyish hairs. Leaves scattered or somewhat fascicled, rigid, linear, entire, pungently pointed, margins revolute, from $\frac{2}{3}$ to 1 in. long, with a single groove underneath. Flowers in sessile umbels, terminal or axillary, very numerous, bracts fugacious; pedicels glabrous, $\frac{1}{2}$ -in. long; flower-segments near 1 in. long, bright-red, reflexed in the upper half, glabrous outside, the inside beset with tender whitish hairs; torus elongated, almost in a straight line continuing the pedicel; hypogynous gland semi-annular and also upwards protracted; style glabrous, nearly half exerted; ovary stipitate, stigma lateral. Fruit oblique-ellipsoid, pointed at the upper end, slightly glandular-rough outside, $\frac{2}{3}$ -in. long. Seeds linear or narrow-ellipsoid, channelled, greyish outside, with a short pale terminal appendage.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 118.

SECTION CALOTHYRSUS.

G. refracta, *R. Br.* in Trans. Linn. Soc. x. 176; Fl. Austr. v. 458. A tall shrub or small tree, the young branches tomentose. Leaves mostly pinnate with 3 to 11 segments 2 to 5 in. long, linear-lanceolate or the terminal one broader, or sometimes reduced to a single oblong-cuneate leaf, the segments acute or obtuse when broad, tapering at the base and sometimes petiolulate, the margins usually recurved, nearly glabrous above and penniveined with numerous very oblique and nearly parallel primary veins, densely silky-pubescent underneath with the midrib alone prominent. Racemes short, secund, nearly sessile, usually several together in a small sessile terminal panicle, the rhachis of each raceme rarely above 1 in. long, the pedicels 2 or 3 lines, hoary-tomentose. Perianth silky-pubescent outside, bearded inside about the middle, the tube 4 or 5 lines long, dilated towards the base, contracted upwards and much revolute under the obliquely globular limb. Torus very oblique. Gland very prominent, half cup-shaped, 2-lobed.

Ovary glabrous, stipitate on the upper margin of the torus; style thick, not very long; stigmatic disk lateral. Fruit very hard, nearly globular, about 1 in. diameter. Seed broadly winged.—Fl. Austr., l.c.

Hab.: Islands of the Gulf of Carpentaria.

G. r. var. ceratophylla, *Benth.*, Fl. Austr. l.c. Leaf-segments often broader and several of the leaves undivided, the primary veins more conspicuous underneath.

Hab.: Islands of the Gulf of Carpentaria.

HAKEA, Schrad.

SECTION GREVILLEOIDES.

H. chordophylla, *F. v. M.* in Hook. Kew Journ. ix. 23; Fl. Austr. v. 495. A glabrous more or less glaucous tree, the leaves terete, smooth, mostly from $\frac{1}{2}$ to 1 ft. long. Racemes from the old wood, loosely cylindrical, 3 to 4 in. long, quite glabrous. Pedicels about $\frac{1}{4}$ -in. long. Perianth glabrous, the tube 4 to 5 lines long, much dilated and oblique at the base, revolute under the limb. Torus very oblique. Gland large, horseshoe-shaped. Ovary stipitate; style long; stigmatic disk broad, oblique, not convex. Fruit obliquely lanceolate, about $1\frac{1}{2}$ in. long and $\frac{1}{2}$ -in. broad near the base, tapering into a short slightly incurved beak. Seed-wing not decurrent along the nucleus.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

H. macrocarpa, *A. Cunn.* in R. Br. Prot. Nov. 30; Fl. Austr. v. 496. A tree of about 15 to 20 ft. with a rugged bark. Leaves linear-lanceolate, 6 to 8 in. long, 2 to 5 lines broad, mostly obtuse, tapering at the base, thick, minutely silky-pubescent on both sides, the veins longitudinal, slightly anastomosing, scarcely prominent. Racemes loosely cylindrical, 3 to 6 in. long, tomentose-pubescent. Pedicels 2 to 5 lines long. Perianth-tube about 5 lines long, oblique, dilated below the middle, revolute upwards. Torus oblique. Gland large, semi-circular. Ovary shortly stipitate, style rather thick, not long; stigmatic disk oblique, broadly conical. Fruit ovate-lanceolate, $1\frac{1}{2}$ to $1\frac{3}{4}$ in. long, 7 to 8 lines broad.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

H. vittata, *R. Br.* in Trans. Linn. Soc. x. 182; Fl. Austr. v. 507. Young shoots minutely ferruginous or hoary, the adult foliage glabrous. Leaves terete, slender, rigid, finely almost pungent-pointed, not attenuated at the base, $1\frac{1}{2}$ to 3 in. long. Flowers not seen, except some loose remains which appear to have been like those of *H. Pampliniana*, the perianth silky-pubescent, the torus small, the style rather long with an orbicular, lateral, stigmatic disk. Fruit ovoid, nearly $\frac{3}{4}$ -in. long, fully 4 lines broad, spotted or slightly verrucose, scarcely beaked, marked with a broad, smooth, dark line down each suture, the valves with a short dorsal horn near the end. Seed-wing decurrent along the upper margin only of the nucleus.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

MUSGRAVEA, F. v. M. (g.n.)

(After Sir Anthony Musgrave, G.C.M.G., the late Governor of Queensland.)

Flowers small, in spike-like racemes, nearly straight before expansion. Petals separately seceding. Stamens inserted near the summit of the petals. Free portion of filaments very short. Anthers apiculate. Hypogynous scalelets usually 3, somewhat distant from each other, upwards gradually pointed. Style capillary. Stigma terminal, conical-ovate; ovulary sessile; ovules 2, laterally attached, their base free. Fruit comparatively large, dimidiate-orbicularly ellipsoid; pericarp hard, anteriorly dehiscent.

M. stenostachya, F. v. M. (n. sp.), Linn. Soc. of N.S.W. March 26, 1890. A tree known to attain 50 ft. in height, and perhaps getting even higher. Leaves of very firm consistence, scattered or crowded, on stalks of moderate length or short-stalked, from 2 to 4 in. long, obovate-elliptical, entire, above glabrous, beneath greyish or brownish from a very thin vestiture; primary-lateral venules pennular-spreading; ultimate venules closely reticular-joined, rather prominent beneath. Racemes very slender, many-flowered, from 2 to 8 in. long, forming terminal panicles. Flowers about $\frac{1}{4}$ -in. long, in pairs on very short stalks, but unprovided with stalklets; each pair from the summit of the stalk supported by 3 long persistent very short bracts. Petals outside beset with appressed greyish hairlets. Style about $\frac{1}{6}$ -in. long, glabrous towards the summit. Stigma minute. Ovulary bearing a brownish close vestiture. Fruit (sent separately) much attenuated into the base, about 2 in. long; pericarp thick, almost lignescent and at last flatly expanding. Seeds unknown.

Hab.: On Mount Bellenden-Ker, *W. Sayer*; on the Johnstone River, *Dr. Th. L. Bancroft*.

This new genus differs from *Darlingia* in bracts, number of hypogynous scalelets and ovules, also possibly in the structure of its seeds. Should, however, normally four ovules be occurring, a question which could not be finally ascertained from the material hitherto extant, and should the seeds not be very different from those of *Darlingia spectatissima*, then our new plant would constitute a second species of that genus. But the pericarp is more like that of *Cardwellia*, while the flowers are almost those of *Helicia*, seemingly also as regards ovules. The leaves are almost undistinguishable from those of *Orites fragrans*.—*F. v. M., l.c.*

TRIBE EMBROTHRIÆ.

LOMATIA, R. Br.

L. ilicifolia, R. Br. in Trans. Linn. Soc. x. 200; Fl. Austr. v. 536. An erect branching shrub of several feet, growing out sometimes into a small tree, quite glabrous or the young shoots and inflorescence more or less ferruginous-pubescent. Leaves petiolate, ovate, oblong, or lanceolate, irregularly prickly toothed or lobed, varying from 2 to 3 in. in some specimens to twice that size in others, glabrous above and more or less reticulate, closely and shortly silky-pubescent underneath; the upper leaves often small and distant, and on barren shoots the leaves sometimes pinnate, with numerous small, sessile or decurrent,

lanceolate, toothed segments. Racemes long and loose, simple or slightly branched. Pedicels $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Perianth glabrous or pubescent with small appressed hairs, the tube 3 to $3\frac{1}{2}$ lines long. Fruit 1 to $1\frac{1}{2}$ in. long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 122.

SERIES ACHLAMYDOSPOREÆ.

Order LORANTHACEÆ.

LORANTHUS, Linn.

L. odontocalyx, *F. v. M.*, Fl. Austr. iii. 391. Glabrous except the inflorescence, or slightly hoary-tomentose. Leaves mostly alternate, oblong-cuneate-oblong, or lanceolate, obtuse, narrowed into a short petiole, under 3 in. long, thick and scarcely veined. Cymes axillary, sessile or very shortly pedunculate, usually 3 to 7-flowered, the short branches and pedicels hoary-tomentose as well as the buds. Calyx tomentose, the limb more prominent than in the allied species, nearly as long as the adnate tube, 5-toothed. Petals 5, not quite 1 in. long, united to above the middle. Anthers adnate, linear. Young fruit crowned by a long neck formed by the calyx-limb.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 111.

Order SANTALACEÆ.

TRIBE OSYRIDEÆ.

LEPTOMERIA, R. Br.

SECTION XEROMERIA.

L. Billardieri, *R. Br.*, Prod.; Fl. Austr. vi. 222. An erect broom-like shrub, attaining sometimes 6 or 7 ft., though sometimes under 2 ft., the branches rather slender and angular, but not so much so as in *L. acida*; leafless at the time of flowering, the minute, linear-lanceolate, scale-like leaves falling off early from the young shoots. Spikes or racemes lateral, loose, $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Bracts ovate-lanceolate, acute, concave, falling off long before the flowering. Perianth-tube tapering into a distinct pedicel, the limb whitish when dry, spreading to about 1 line diameter. Epigynous disk distinctly lobed. Stigma minutely 5-lobed. Drupe small, with a fleshy scarcely succulent epicarp.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 110.

SERIES UNISEXUALES.

Order EUPHORBIACEÆ.

TRIBE EUPHORBIÆ.

EUPHORBIA, Linn.

SECTION ANISOPHYLLUM.

E. schizolepis, *F. v. M.*; *Boiss.* in DC. Prod. xv. ii. 20; Fl. Austr. vi. 47. An annual, but with hard often woody-looking stems

of about 1 ft. high, dichotomously branched and more or less pubescent with crisped hairs. Leaves opposite, almost sessile, ovate or ovate-oblong, acute, oblique and unequally cordate at the base, $\frac{1}{2}$ to 1 in. long, sprinkled on both sides with short hairs. Flower-heads shortly pedicellate in the upper axils, forming sometimes terminal leafy cymes. Involucre about $1\frac{1}{2}$ line long, the glands peltate with a broad, spreading, palmately lobed or fringed appendage, not so white as in most species. Capsule and seed not seen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 31.

E. s. var. glabra, *Benth.* in Fl. Austr. vi. 47. Plant perfectly glabrous, with the gland-appendages much less lobed.

Hab.: Gulf of Carpentaria.

TRIBE STENOLOBEÆ.

PSEUDANTHUS, Sieb.

P. ovalifolius, *F. v. M.* in Trans. Phil. Inst. Vict. ii. 66; Fl. Austr. vi. 59. A densely branched, rigid, low, spreading shrub, quite glabrous or with a slight scabrous pubescence on the angles of the branches and midrib of the leaves. Leaves scattered, occasionally opposite but mostly alternate, on exceedingly short petioles, mostly ovate but varying from orbicular and 1 line diameter to oblong and 2 lines long, very obtuse, rigid, concave or complicate and often recurved at the end. Male flowers very shortly pedicellate in the upper axils; perianth white, the segments not very unequal, about 1 line long. Stamens 6 round a minute rudiment of the ovary, the 3 inner ones nearly as long as the perianth, the outer ones short and one sometimes very short. Female flowers sessile, the perianth-segments about $\frac{1}{2}$ -line long, red with white margins. Ovary narrow. Fruit not seen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 32.

TRIBE PHYLLANTHÆ.

PHYLLANTHUS, Linn.

P. trachyspermus, *F. v. M.* in Trans. Phil. Soc. Vict. i. 14; Fl. Austr. vi. 108. A glabrous glaucous annual, with ascending branching stems about 6 in. high or perhaps more. Leaves almost sessile, broadly oblong, obtuse, $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Stipules spreading but minute. Flowers monœcious. Male not seen. Female solitary in the axils, on very short pedicels. Perianth segments ovate, spreading, about $\frac{3}{4}$ -line long. Styles 3, very short, spreading, broad and emarginate at the end. Capsule from the remains seen appears to have been ovoid-globular, about 3 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 35.

P. buxifolius, *Rein.* in Blume Cat. Plants Buitenz. 106; *F. v. M.* in 2nd Syst. Cens. Austr. Pl.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 35.

* Description not to hand.

OMPHALEA, Linn.

(Name referring to the umbilicate anthers.)

Flowers monœcious, apetalous. Disk obscure, or none. Flowers (male): Segments 4 or 5, much imbricate; stamens 2 or 3; filaments connate in a short column, hemispherical or disciform incised at the margin, bearing 2-locular small anthers; cells vertical, extrorsely rimose; ovary rudimentary or none. Flowers (female): Segments of the males; ovary 2 to 3-locular, cells 1-ovulate; style columnar, obtuse or very shortly 2 or 3-lobed. Fruit thick, 2 or 3-dymus, epicarp fleshy, endocarp hard, indehiscent, or at length bursting into 2-valved cocci. Seed subglobose, estrophiolate, with a thick fleshy albumen; cotyledons broad, plain. Tall climbing shrubs, rarely trees. Leaves alternate, bearing 2 glands at the top of the petiole, often large, entire, penni-veined, and with 3 or 5 nerves starting from the base. Flowers cymulose in simple or ramified racemes, the central female; bracts often linear-spathulate, 2-glandular.

O. queenslandiæ (n. sp.) A rampant climbing plant, extending 100 or more feet; stems terete, or with more or less prominent decurrent lines from the base of the petioles; central pith abundant. Leaves alternate, broadly ovate or oblong, obtusely acuminate, broad almost truncate at the base, entire, 5 to 6 in. long, 3 to 4 in. broad at the base or sometimes twice that size, glabrous and deep-green; petioles 1 to 2 in. long with 2 sessile rather large glands at the top; nerves 5 to 7 on each side of the midrib, the lowest pair starting from the top of the petiole, the smaller reticulations fine, but prominent in the dried leaf. Inflorescence slightly ferruginously pubescent, in pedunculate cymes in the upper axils of lateral shoots, somewhat trichotomously branched, about 2 in. long and broad. No male flowers found in the inflorescence examined. Female perianth of 5 imbricate hairy lobes, $1\frac{1}{2}$ line long, the flowers very variable as to size and length of pedicels, some quite sessile; style very short with 3 spreading stigmatic branches. Fruit large, globular, yellow or nearly white, 3 to 5 in. diameter, 2 to 3 or in some 4-celled; exocarp thick, fleshy, ultimately separating into as many cocci, with a thin hard endocarp containing a solitary globular seed. The flowers may probably sometimes have 4 stigmatic lobes.

Hab.: Johnstone River, Harvey's Creek.

The specimens from which the above description was written were received some years ago from Dr. Thos. L. Bancroft, when that gentleman was on the Johnstone River, and the nuts were described by him as edible. At the time I felt diffident about publishing the plant as new, so placed it in the herbarium, marked "Near *Omphalea*," this American genus seeming its nearest ally. While on the Bellenden-Ker expedition I frequently noticed the plant and saw fruit on the ground, but could obtain no flowers. However, I have ventured to name it as a new species of *Omphalea*, although no male flowers are yet to hand. I notice also, in a late issue of the *Townsville Bulletin*, that some nuts collected by Mr. Christie Palmerston were sent to the Royal Gardens, Kew, and the authorities there considered one of these nuts to belong to some species of *Omphalea*, probably the same plant here

described. I did not obtain the native name; but the name there given is "Coorwah." Plants for years have been growing at Bowen Park which were raised from Johnstone River seeds.

A species, *O. oleifera*, Hemsley, at Salvador, Sonsonate, is called by the natives "Tambor," and Dr. Dorat says that it yields a large quantity of a very fine oil, pleasant to the taste, and resembling castor oil in its purgative qualities, with the advantage that its action is painless. Bio. Cent.—Ame. (Botany) iii. 134.

Dr. Lindley, Veg. King. p. 279, says that the juice of a Guayana species, *O. triandra*, turns black in drying, and is there used in the place of ink. I notice that the coagulated sap of our native plant often forms small black lumps on the branches.

Order URTICACEÆ.

TRIBE ARTOCARPEÆ.

FICUS, Linn.

F. infectoria, *Rowb.*, Fl. Ind. iii. 550; Fl. Brit. Ind. v. 515. A low deciduous tree, all parts glabrous. Leaves membranous, $3\frac{1}{2}$ to 5 in. long, oblong-ovate or ovate, abruptly shortly acuminate, margins entire subundulate, base usually rounded and emarginate or subcordate, sometimes narrowed or acute, indistinctly jointed with the petiole, 3-nerved or of 5 to 7 pairs; petioles slender, $1\frac{1}{2}$ to 2 in. long. Stipules about $\frac{1}{2}$ -in. long, broadly ovate, acute, pubescent. Receptacles in axillary pairs sessile, globose, when ripe $\frac{1}{4}$ -in. diameter, whitish flushed with red and dotted; basal bracts 3, ovate-rotund, minute. Male flowers few, sessile, near the mouth of the receptacle; anther broadly ovate, filament short; sepals 4 or 5, linear. Gall and female flower: Sepals 3 or 4, like those of the male, the latter often sessile; style of female long, of gall flower short; stigma elongate.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 38.

F. subulata, *Blume*, Bijd. 461; *Dr. Geo. King*, Annals Roy. Bot. Gar. Cale. vol. i. 8, t. 6. A semi-scandent or straggling shrub, the young parts puberulous. Leaves short-petiolate, membranous, elliptic, elliptic-lanceolate, or subobovate-elliptic, sometimes slightly inequilateral; apex rather abruptly and shortly cuspidate, edges entire, waved; base acute, 3-nerved (with occasionally several subsidiary nervelets); lateral primary nerves 7 to 10 pairs rather prominent below; in the adult leaves both surfaces are glabrous, dull when dry, the lower rather pale-coloured; length of blade 4 to 5 or 10 in.; petioles about 3 in. long, stout, scaberulous; stipules conspicuously convolute, subulate, curving away from the axis, usually more than three times as long as the petiole. Receptacles axillary, short-pedunculate, sometimes almost sessile, in pairs (solitary by abortion) or in fascicles; those bearing male flowers ovoid, and with the umbilicus rather prominent; the umbilical bracts numerous; those bearing fertile female flowers globose when ripe; both forms scaberulous, absolutely verrucose, orange-red, without basal bracts, but with a few bracts scattered irregularly along the sides, about 4 or 5 lines across; peduncles short, with numerous bracteoles at their bases. Male

flowers (occurring only in the ovoid receptacles with the gall flowers): The perianth thick, fleshy, tubular, with 4 rather short teeth; stamen 1, the anther broad, pistil globular, insect-attacked. Gall flowers pedicellate, the perianth like that of the male, achene sub-globular, smooth; style short, lateral; stigma capitate. Fertile female flowers (in globular receptacles in which there are no male flowers): The perianth hairy, gamophyllous, with 4 long teeth; achene oblong; style lateral; stigma elongate.—*King, l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 38.

F. crassipes (n. sp.) (So named from the thick stalk of fruit.) A large tree with a somewhat smooth light-coloured bark, very milky, ends of the branches very thick, marked with rings showing where the stipules were attached. Leaves alternate, very close on the ends of the branches, the internodes not being more than $\frac{1}{4}$ -in. long; petioles somewhat flattened, about 3 in. long and 3 lines broad, glabrous or slightly hoary; lamina ovate or obtuse-ovate, with or without a short blunt point, usually rounded at the base, 5 to 8 in. long, 4 to $5\frac{1}{2}$ in. broad, thick, coriaceous, and deep-green, the margins entire, the primary lateral veins parallel, except the basal pair, which starting from the top of the petiole meet the other at about $\frac{1}{4}$ up the leaf where, anastomosing with them, form intramarginal ones. Stipules about 2 in. long with very fine point. Receptacles crowded at the ends of the branches, obtusely 3-angular, some showing a fourth angle, about 2 in. long and 1 in. diameter, marked with oval purple spots, the apex beaked; peduncles 3-angular, often broader than long.

Hab.: Scrubs, Harvey's Creek, Russell River.

This fine tree resembles somewhat, in its long angular fruit, *F. pleurocarpa* of the Johnstone River.

AUSTRALINA, Gaudich.

(Name from having been discovered in Australia.)

Flowers monœcious, in the same or different axillary clusters, the males few together (1 to 5) sessile on a very short common peduncle, the females sessile or on very short pedicels. Male perianth irregularly bilabiate, the outer lip inflexed in the bud. Stamen 1, without any rudimentary pistil. Female perianth ovoid-tubular, obscurely 5-toothed. Ovary enclosed in the perianth but free, with a linear style, villous especially on one side and persistent. Nut enclosed in the persistent perianth. Diffuse or prostrate branching perennial herbs with the habit of *Parietaria*. Leaves petiolate, alternate or rarely opposite, crenate or obtusely toothed, membranous, 3-nerved. Stipule small.—Fl. Austr. vi. 188.

A. pusilla, *Gaudich.* in Freyc. Voy. Bot. 505; Fl. Austr. vi. 189. Stems filiform, creeping along or hanging from rocks, usually under 6 in. long and much branched. Leaves nearly orbicular, broadly crenate, 2 to 4 lines diameter or rarely $\frac{1}{2}$ -in. when very luxuriant. Male flowers solitary or 2 together on a common peduncle about as long

as the perianth, which is nearly 1 line long when open, with 1 large stamen within the large outer lip. Female flowers 2 to 5 together in the same or different axils, each on a very short pedicel without any common peduncle. Bracts very small and few or none. Fruiting perianth scarcely above $\frac{1}{2}$ -line long, ovate, compressed.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 39.

Order CASUARINÆ.

CASUARINA, Linn.

C. Decaisneana, *F. v. M.*, *Fragm.* i. 61; *Fl. Austr.* vi. 201. A tree of 30 or 40 ft.; the branches terete, rigid, scarcely ribbed, the internodes about $\frac{1}{2}$ -in. long. Whorls 4-merous, the sheath-teeth somewhat paleaceous, lanceolate, fine-pointed, 1 to 2 lines long, or on the young permanent branches, often 3 lines, erect and never recurved. Male spikes unknown. Cones ovoid, very shortly pedunculate, $1\frac{1}{2}$ in. long and 1 in. diameter, very woody, tomentose-villous, the thick valves not protruding beyond the broad, thick, undivided, dorsal tubercles.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 40.

Class II. MONOCOTYLEDONS.

SERIES MICROSPERMÆ.

Order HYDROCHARIDÆ.

TRIBE VALLISNERIÆ.

VALLISNERIA, Linn.

V. gracilis (n. sp.) (Plant small and slender compared with others of the genus.) Stems slender, creeping in the mud. Leaves about 7 or 8 to a plant, very narrow like fine grass, 3 to 5 in. long and about $\frac{1}{2}$ -line broad, the sheathing base short, tapering to filiform points, all submerged, no portion floating on the surface of the water. Male flowers minute; female flowers on very fine, filiform, spirally twisted stalks; perianth of 3 ovate entire segments; stigmas 3.

Hab.: Still waters, or at the edge of the running waters of the Mulgrave River.

The above is from note made on the spot, and having but a common lens I could not fully describe the flowers.

TRIBE THALASSIÆ.

ENHALUS, Rich.

Male flowers many, minute, enclosed in a short, compressed, sessile, 2-leaved spathe, at length escaping and floating; segments of perianth broadly elliptic; stamens 3, anthers sessile, oblong;

pistillode none. Female flowers much larger, solitary, sessile in a long spathe, scape spiral; outer segments oblong, imbricate; inner ones longer, linear, subvalvate, wrinkled. Staminodes none; very ovoid with 6 papillose ridges, long-beaked, almost 6-celled; styles 6, bipartite, arms slender, fimbriate; ovules few on each placenta, anatropous. Fruit ovoid, beaked, indehiscent, deliquescent, spathe persistent, placentas nearly meeting in the centre, spongy. Seeds few, large, convoid, testa mucilaginous; plumule many-leaved. A submerged marine monœcious or diœcious herb; rootstock crinite with the remains of old leaves. Leaves narrowly linear, enclosed in twos or threes in a basal sheath.—*Hook.* in *Fl. Brit. Ind.* v. 663.

E. Koenigii, *Rich.* in *Mem. Inst.*; *Fl. Brit. Ind.* v. 663. Rootstock extensively creeping in sand. Leaves 2 to 3 ft. long by $\frac{1}{2}$ to $\frac{3}{4}$ in. wide, margins thickened, tip rounded dentate. Spathes 2 in. long, strigose. Ovary with papillose margms. Fruit raised to the surface for ripening.—*Hook.*, *Fl. Brit. Ind.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd. Syst. Cens. Austr. Pl.* 193.

Order ORCHIDÆ.

TRIBE EPIDENDRÆ.

OBERONIA, Lindl.

O. pusilla (n. sp.) (A weak small species.) A small light-green plant, thickly studding the bark of a *Myrtus*. Leaves slightly distichous, about 4 or 5 to a plant, semi-cylindric, foveolate, fleshy, not over 1 in. long and 1 line thick. Flower-racemes slightly exceeding the leaves and bearing about 12 minute flowers, each of which is subtended by a transparent bract. Fruit white, globular, about 1 line diameter.

Hab.: Bellenden-Ker, at about 4,000 ft. above sea-level.

No fresh flowers found on the plants; only found the plants on one tree, on which they were very numerous.

DENDROBIUM, Swartz.

D. Tofftii (n. sp.) (After Alfred George Tofft.) A stout species resembling *D. undulatum*, the stems attaining to 4 or 5 ft. in height, swollen above the base, all more or less compressed, and prominently marked with purple ribs. Leaves broadly ovate and emarginate similar to those of *D. undulatum*. Racemes several, proceeding from the upper part of the stem, about 15 in. long including the rather long peduncle, which latter bears about 3 distant, obtuse, closely sheathing, scarious bracts, besides several which are crowded at the immediate base. Pedicels attaining $1\frac{3}{4}$ in. Outer segments or sepals attaining $1\frac{1}{4}$ in., nearly white, more or less recurved above the middle, obtuse, the dorsal one 4 or 5 lines broad at the base, the lateral ones broader, extending down and covering the rather pointed straight spur formed from the base of the column and labellum; inner segments or petals

about as long as the outer, obtuse, narrower, and tapering much towards the base, faintly lined with violet, and frequently but not always curled. Labellum about the same length as the other segments but much broader, the lateral lobes erect, stained with violet, and marked by violet-coloured forked veins, embracing the column, middle lobe small and scarcely separated from the others, obtuse, emarginate, or sometimes apiculate, the margins undulate; the disk with 3 strong dark violet-coloured plates with entire margins ending abruptly at the base of the middle lobe. Column of medium length, violet-stained at the base, more or less arched, with thick wings. Anthers flat, not prominent; pollen-masses coherent.

Hab.: Creek off the Johnstone River.—*A. G. Toff.*

This new superb species approaches *D. undulatum* in habit and form of leaves. The stems, however, are much more compressed, and the flowers are very different in both form and colour. In the dark-coloured ribs of the stem it is similar to *D. Johannis*.

D. undulatum, var. Broomfieldii, *Fitzg.*, Austr. Orch. part 3, vol. 2. (After Captain Broomfield.) Only differ in colour of flowers, which are a canary-yellow, and in the more angular stem.

Hab.: North Australia.—*Capt. Broomfield*, *Fitzg.*, l.c.

BULBOPHYLLUM, Thou.

B. Toressæ (n. sp.) (After Miss Toressa Meston.) A small plant with creeping rhizome adhering close to the granite rocks by roots from the under side, extending to 2 or 3 in. in length, often forming radiating patches. The upper surface closely covered by distichous, closely sessile, ovate-lanceolate, rugose leaves, which are so concave on the upper face as to be somewhat cymbiform, 3 or 4 lines long, with a single nearly sessile flower nestling at the base. Flowers yellowish-white, subtended by a prominent scarious bract; 3 outer segments broad and about 2 lines long, the lateral ones forming a short, blunt, almost truncate spur; the inner segments white, of delicate texture, and nearly the length of the outer ones. Labellum of equal length with the other segments, 3-lobed, lateral lobes dotted with purple, very short; middle lobe blunt and thick, bright-yellow; column short and, for the size of the flower, prominently winged.

Hab.: On the shady rocks, Whelanian Pools; in flower in June and July.

B. nematopodum, *F. v. M.*, *Fragm.* viii. 30; *Fl. Austr.* vi. 287. Stipulary bract rigidly ribbed. Outer segment of flower with a purple edge, and 3 purple lines down the centre; inner segments about half the length of outer, say about $1\frac{1}{2}$ line, margin and one line down centre purple. Labellum $\frac{3}{4}$ as long as outer segments, and very velvety, with purple hairs; column length of inner segments.—*Note from pocket-book.* *F. M. B.*, Bellenden-Ker Report.

Hab.: On rocks, Whelanian Pools.

B. punctatum, *Fitzg.* in *Britt. Journ. Bot.* xxi. 205. Rhizome creeping, closely jointed, clothed with long hairs. Pseudobulbs conical,

less or more than 1 in. long, and a little less broad, deeply ribbed and furrowed. Leaves oblong, 3 to 6 in. long and about 1 in. broad. Scape rather slender, about $2\frac{1}{2}$ in. high, with a small sheathing acute bract at the base. Flower dull-yellow spotted with red-brown. Outer segments lanceolate, thick, about 10 lines long, 4 lines broad. Inner segments lanceolate, thick, about 8 lines long, 3 lines broad. Labellum 3 lines long, thick, channelled at the base, contracted in the centre, blunt, curved, articulate on the basal projection of the column. Column short, with 2 prominent teeth.—*R. D. Fitzg., l.c.*

Hab. : Cape York.—*R. D. Fitzg., l.c.*

CIRRHOPETALUM, Lindl.

(Said to be named by Dr. Lindley from the prevailing tawny colour of the blossoms, from the Greek *kirros*, tawny, and *petalon*, petal.)

Sepals free ringent, the lateral ones acuminate, drawn out at the base, adnate to the column, much longer than the upper one. Petals short, apiculate. Labellum entire, articulated with base of column. Column small, drawn out at the base, and furnished with 2 petaloid horns at top. Anthers 2-celled. Pollen-masses 4; 2 inner ones smaller.

C. clavigerum, *Fitzg.* in *Britt. Journ. Bot.* xxi. 204. Rhizome creeping in joints of about 3 or 4 lines, covered with long hairs especially round the pseudobulbs, forming dense masses. Pseudobulbs conical, from 6 to 18 lines long and from 5 to 12 lines broad, deeply ribbed and furrowed. Leaves thick, oblong, pedunculate, from 3 to 6 in. long and about $1\frac{1}{4}$ in. broad. Scape 6 to 8 in. long, slender; bracts lanceolate, herbaceous. Flowers 6 or 7 in a horizontal half-circle on pedicels of 10 lines with small acute bracts at their base. Dorsal segments acute, dull-yellow, spotted in parts with purple, about 4 lines long and broad, terminated in a clavate hair, about 4 lines long. Lateral segments ligulate, united from about a quarter of their length nearly to the ends, about $1\frac{1}{2}$ in. long, 3 lines broad, acute, yellowish. Inner segments lanceolate, ciliate, purplish. Labellum thick, ligulate, much curved, articulate on the basal projection of the column. Wings of column recurved at the anther, acute.—*R. D. Fitzg., l.c.*

Hab. : Cape York.—*R. D. Fitzg., l.c.*

TRIBE VANDEÆ.

DIPODIUM, R. Br.

D. punctatum, var. album. This is a lovely form with pure white flowers, found at Cleveland by W. R. Kefford.

TRIBE NEOTTIÆ.

PRASOPHYLLUM, R. Br.

P. australe, *R. Br., Prod.; Fl. Austr.* vi. 337. Stems often 2 or 3 ft. high, the leaf-sheath occupying about half its length or even more, the lamina much shorter than the spike. "Flowers striped with

brown and yellowish green" in a spike of 3 to 6 in. or rather more. Ovary elongated. Sepals and petals all acutely acuminate, about 4 lines long, the dorsal sepal broad and concave, the lateral sepals united in the middle, sometimes free at the base and the points always free; petals broader than in *P. elatum*. Labellum sessile, with a broad gibbous somewhat fleshy erect base, abruptly recurved and reflexed in the middle of its length, the margins of the recurved part undulate, the inner plate very prominent, entire or minutely crenulate, scarcely reaching beyond the bend. Anther obtuse, shorter than the rostellum. Lateral appendages of the column adnate to the stigma at the base, lanceolate-falcate, obtuse, rather longer than the rostellum, dilated and sometimes thickened on the outer margin.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 183.

CORYSANTHES, R. Br.

C. pruinosa, *R. Cunn.* in N.S.W. Mag. n. i. 1833; *F. v. M.*, Key to Syst. Vict. Pl. 412. Quite dwarf; leaf green also underneath; flower of considerable size, purplish-dark except part of the outer side of the upper calyx-lobe; labellum conspicuously contracted towards the base, slightly or shortly denticular-fringed, its upper portion dilated, curved forward and streaked; fruit slender ellipsoid.—*F. v. M.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 190.

ACIANTHUS, R. Br.

A. exsertus, *R. Br.*, Prod.; Fl. Austr. vi. 370. A slender delicate plant, much resembling *A. fornicatus*, but smaller. Leaf deeply cordate, ovate or orbicular and often sinuate as in that species. Flowers rather smaller, 3 to 6 in the raceme, the pedicel very short. Dorsal sepal slightly incurved, concave, but narrow and much contracted at the base, about 3 lines long including the short point; lateral sepals almost subulate; petals lanceolate, about half as long as the sepals. Labellum nearly as long as the sepals, oblong-lanceolate as in *A. fornicatus* but on a more distinct claw, the raised plates at the base rather longer and the surface of the lamina smooth or with very few papillæ in 2 rows. Column slender, not winged, about half as long as the sepals, incurved and protruding forward from the dorsal sepal. Pollen of *A. fornicatus*.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 191.

CALADENIA, R. Br.

C. latifolia, *R. Br.*, Prod.; Fl. Austr. vi. 384. Hairy, from $\frac{1}{2}$ to 1 ft. high. Leaf oblong-lanceolate, $1\frac{1}{2}$ to 4 in. long. Flowers pink or rarely white, usually 2 or 3, rather distant, on short pedicels. Lateral sepals varying in different specimens from 6 to 11 lines long, oblong-lanceolate, obtuse or scarcely acute, the dorsal sepal rather shorter and more acute, the petals somewhat shorter and more lanceolate. Labellum not $\frac{1}{3}$ the length of the sepals, shortly cuneate

at the base, deeply 3-lobed, the lateral lobes oblong-obtuse and entire, the middle lobe longer, ovate or broadly lanceolate, fringed near the base with a few marginal calli, the calli of the disk linear-clavate, rather long in 2 short converging rows, sometimes almost forming a semi-circle, sometimes rather longer and more parallel. Column shortly and rather broadly winged at the apex. Anthers with a long point.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 192.

CHILOGLOTTIS, R. Br.

C. trilabra, *Fitzg.* in Brit. Journ. Bot. xxi. 304. Leaves 2, sessile, oblong-lanceolate, acute, about 10 lines long, 4 lines broad. Scape about 3 in. high, with 1 large sheathing acute bract below the ovary. Dorsal segment spatulate, acuminate, about 7 lines long, light red-brown tinged with green. Lateral segments linear, about 7 lines long, acute, yellowish. Labellum light red-brown, about 5 lines long, obovate, acute, on a broad claw; 1 large greenish reflexed callus near the base and about 9 or 10 other large, flat, dark red-brown calli along the centre of the disk, surrounded by numerous small clavate slender calli; the inner segments similar to the labellum, but not quite so broad and with hardly so fully developed calli. Column shorter than the inner segments, but slightly winged, the wings extending behind the anther into a deeply 4-toothed crest. Anther with a short point.—*R. D. Fitzg., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 192.

SUBTRIBE ARETHUSEÆ.

EPIPOGUM, Gmel.

Sepals and petals free, nearly equal, narrow, erect or spreading. Labellum sessile, large, ovate, concave, with a short obtuse spur at the base. Column very short, the margin membranous. Anther lid-like, with a large thick terminal appendage. Pollen-masses 2, granular, attached to the gland by long caudicles. Leafless terrestrial herbs, with a thick and fleshy or branching and coral-like rhizome. Scapes simple, ascending or erect, with a few scarios scales, not green. Flowers white (or sometimes pink?) in terminal racemes usually nodding or pendulous.—Fl. Austr. vi. 308.

E. nutans, *Lindl.* in Journ. Linn. Soc. i. 177; Fl. Austr. vi. 308; *F. v. M.* in Fragm. viii. 30 and ix. 50. Tuber oblong, $1\frac{1}{2}$ to 2 in. long and about 1 in. thick, lying horizontally in the soil 1 or 2 in. below the surface. Stem hollow, 3 to 9 in. high, with a diameter of nearly $\frac{1}{2}$ -in., very fragile and white, with about 4 oblong-ovate bracts below the flower, those subtending the flowers similar but smaller, all very thin. Flowers very numerous, crowded on the upper half of the stem, which portion before the flowers expand is bent down; nodding pedicels very slender and short, scarcely 2 lines. Ovary with 3 almost winged

angles, about 3 lines long. 3 outer segments about $\frac{1}{2}$ -in. long, narrow-lanceolate; 2 inner segments broader than the outer ones, but of equal length, all white and very delicate, the points connivent or slightly spreading. Labellum longer than the other segments, broadly ovate, concave, entire or the margins slightly fringed, sessile; spur about 2 lines long, very blunt and transparent, the disk with 2 rather distant and broad rows of papillæ, white with a few faint pink spots near the end. Column very short, appendage at the end of the anther large as itself.

Hab.: At the root of an old *Lantana* bush, Ithaca Creek. A rare plant, but of very wide range.

SERIES EPIGYNÆ.

Order SCITAMINEÆ.

ALPINIA, Linn.

A. arctiflora, *F. v. M.*, *Fragm.* viii. 25; *Fl. Austr.* vi. 266. Stems often 12 ft. high. Leaves long-lanceolate, about $1\frac{1}{2}$ ft. long and 2 to 4 in. broad, contracted into a very short petiole above the sheathing base. Panicle narrow, dense, pubescent as well as the under side of the leaves. Outer bracts few, rather above 1 in. long; those subtending the peduncles $1\frac{1}{2}$ in. long or shorter. Calyx about 1 in. long, narrow, dilated upwards and acutely 3-lobed. Corolla white, pubescent outside, the lobes about 4 lines long, the tube longer. Labellum longer than the corolla, 2-lobed, at least $\frac{1}{2}$ -in. long and broad. Connective produced beyond the anther-cells into a cuneate-ovate appendage of about 2 lines. Style glabrous. Capsule ellipsoid, 3-valved, many-seeded.—*Fl. Austr.*, l.c.

Hab.: Tropical scrub lands of Queensland.

Order AMARYLLIDÆ.

TRIBE EUAMARYLLIDÆ.

CRINUM, Linn.

C. brachyandrum, *Herb.* in Baker's *Handb. of Amaryll.* 83. Bulb 3 in. diameter; neck short. Leaves about 20 to a bulb, sub-erect, ensiform, 3 to 5 ft. long, 2 in. broad, deep-green, not tapering much to the point. Peduncle 2 ft. long. Flowers about 10 to 30 to an umbel, not perfectly erect; pedicels very short. Perianth-tube greenish, under 3 in. long; segments lanceolate, $\frac{1}{3}$ -in. broad, rather longer than the tube. Filaments scarcely an inch long. Style an inch long. Seeds 2 in a cell.—Baker's *Amaryllidæ*, 1888.

Hab.: Given as a Queensland plant in *Muell. 2nd. Syst. Cens. Austr. Pl.* 196.

J. G. Baker, in his excellent *Handbook of Amaryllidæ*, from which the above description is taken, says:—"Hab: North Australia, introduced to the Calcutta garden by Dr. Carey, and sent by him to Dean Herbert about 1820. I have not seen any specimen, nor has it been figured. In its short stamens and style it agrees

with *C. venosum*, R. Br." And t. 2121, Bot. Mag.—which both Bentham in Fl. Austr. vi. 454, and F. v. Muell. in 2nd. Syst. Cens. Austr. Pl. 196, quote as the figure of this plant—Baker, in the work above referred to, p. 92, says is a figure of the South African *C. campanulatum*, Herb. It is most probable that *C. brachyandrum* is only a broad-leaved form of *C. venosum*.—*F. M. B.*

SERIES CORONARIÆ.

Order LILIACEÆ.

TRIBE ANTHERICEÆ.

TRICORYNE, R. Br.

T. muricata, *Baker* in Journ. Linn. Soc. xv. 363; Fl. Austr. vii. 52. Stems erect, rigid, with numerous slender striate or angular branches as in *T. anceps*, but the angles hispid with few rigid transparent hairs. Leaves reduced to scales. Flowers in umbels like *T. anceps*.—Fl. Austr., l.c.

Hab. : Wide Bay.

DICHOPOGON, Kunth.

D. Sieberianus, *Kunth*, Enum. iv. 623; Fl. Austr. vii. 59. Habit of the slender narrow-leaved specimens of *D. strictus*. Stems mostly about 1 ft. high, simple or slightly branched. Leaves very narrow. Flowers in clusters of 2 or 3 like those of *D. strictus*, but the pedicels reflexed from near the base. Appendages to the base of the anthers rather long and almost adnate to the filament. Capsules always reflexed.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 199.

SERIES CALYGINÆ.

Order PALMÆ.

BACULARIA, F. v. M.

B. Palmeriana (n. sp.) (After Edward Palmer, M.L.A., to whom we are indebted for much useful information as to the uses made by the aboriginal of our indigenous plants.) Stem slender, seldom exceeding $\frac{1}{2}$ -in. diameter, generally much less than that; height not over 5 ft., usually 2 or 3 ft. when in fruit; leafy at the top, 6 to 10 forming the crown. Leaves, sheathing bases 3 or 4 in. long, prominently striated or ribbed, with thin scarious edges which do not form stipule-like lobes at the top; midrib forming a sharp projecting angle; petioles erecto-patent, 6 to 9 in. long, 1 to 2 lines broad, semi-terete; rhachis 4 to 7 in. long; segments 1 or 2 pairs, their bases broadly adnate to the rhachis and slightly decurrent, somewhat widened above the base, thence tapering to often a long acute point, the outer edge of the upper part with prominent teeth. Inflorescence

erect, slender, numerous amongst the leaves; peduncles flattened or semi-terete, 6 to 9 in. long; spike 3 to 5 in. long, enclosed at first in a membranous spatha, which is affixed immediately below the lowest flowers, open along one side. Flowers very small, but not gathered in a fit state to examine; young fruit gathered cylindric, somewhat fusiform or an elongated cone 4 to 6 lines long and 1 or 2 lines diameter. The whole plant more or less furfuraceous, those on the mountain top much more so than the others. My specimens were gathered at the base of the leading spur, at about 2,000 feet, and from that to the summit of the south peak, an altitude of over 5,000 feet.

Hab.: Bellenden-Ker Range.

In inflorescence it resembles *Bacularia minor*, F. v. M., but is widely different in foliage, the leaves being often so like *Nengella flabellata*, Becc., that they might be taken as belonging to that plant. From Baron Mueller's remarks, *Fragm.* xi. 58 and x. 121, it is probable that examples of this new species may have been forwarded to him in association with those of the *Bacularia* above referred to.

NIPA, Wurmb.

[Substitute the following for that given at page 568 in first part of this work.]

N. fruticans, var. Neameana, *Bail.*, Proc. Roy. Soc. Ql. v. 147. Stem short, thick, from a stout creeping rhizome, which is much flattened and about 1 ft. broad, with a thickness of about 6 in., rooting from the under surface only, the upper surface quite smooth. Leaves averaging about 6 or 7 to a plant, 4 usually living, and 2 or 3 decaying, pinnate, 25 ft. to 30 ft. long, the base very stout and clasping the very short erect stem. Pinnæ approximate, of from 50 to 60 pairs, 2 ft. to 4 ft. long, 2 in. to 3½ in. broad, plicate, the midrib sharply angled beneath, the upper side bearing lanceolate dark-brown centrally attached scales, two prominent ribs on each side of the midrib, and rib-like margins, the midrib confluent with the lower margin below the apex, forming an angular point of several inches in length. Peduncle 3 ft. or 4 ft. high, bearing 3 large and many small sheathing bracts; the lowest larger one very obtuse, having a strap-like appearance from the rather broad wings formed on either side, other bracts all pointed and much smaller, and one or two keeled; panicle of 5 branches, the lower lateral ones male, each much divided, the divisions ending in male catkins 1 or 2 in. long and about ½-in. in diameter, digitaliform, the terminal branch bearing a spherical head of from 1 ft. to 16 in. in diameter, composed of more or less angular fibrous drupes, each about 6 in. long by 3 in. broad, when ripe of a chestnut-brown and more or less glossy, each containing one round seed, which, although it may be eaten in an unripe state, becomes very hard and ivory-like when old.

Hab.: Herbert River.—*Arthur Neame*, 1880.

Mr. Neame writes that the Herbert River natives make use of the seeds when in an unripe state for food, as is done in other countries where the *Nipa* is indigenous.

SERIES NUDIFLORÆ.

Order PANDANACEÆ.

PANDANUS, Linn.

P. Solms-Laubachii, *F. v. M.* in der bot. Zeitung, 1887.

I have no copy of the work in which Baron Mueller has published the description of the above species, but in letter he tells me that "it grows to a height of 70 feet, the stem much thicker than that of *P. pedunculata*, while the leaves and fruit are only half the size, the fruitlets fewer in each set and less connate in the upper part."

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 202.

Order NAIADACEÆ.

TRIBE JUNCAGINEÆ.

TRIGLOCHIN, Linn.

T. centrocarpa, *Hook.*, Ic. Pl. t. 728; Fl. Austr. vii. 167. A dwarf slender plant, usually densely tufted. Radical leaves subulate, often all under $\frac{1}{2}$ -in., rarely rather above 1 in. long. Scapes usually 1 to 2 in. long, or in luxuriant specimens twice as much, very slender, bearing fruits from below the middle. Flowers minute, in a short dense inconspicuous spike, which soon elongates so as to occupy half the scape. Perianth-segments from broadly ovate-acute to lanceolate and acuminate, $\frac{1}{4}$ to $\frac{1}{2}$ line long, from scarcely exceeding to twice as long as the anthers, the lower flowers often with only 1 anther-bearing segment and 2 lateral empty ones, the others with 3 or rarely 6 segments, all anther-bearing, but the majority of the numerous specimens seen in fruit with the perianth and stamens fallen away. Fruit linear, usually about 2 lines, but varying from 1 to 3 lines long, with 3 perfect cells, truncate at the top and obtuse or more or less 3-toothed with the 3 stigmas, each perfect carpel 3-ribbed on the back, the lateral ribs with either a prominent angle or a tooth or spur at the base, the 3 barren carpels sometimes as thin as in *T. striata*, sometimes as thick as the perfect ones but solid inside, and in some small specimens only 1 seed ripens in the whole fruit.—*Benth.* in Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 204.

T. c. var. calcitrata, *Benth.*, Fl. Austr. vii. 167. Fruits fully 3 lines long, the basal spur 1 to $1\frac{1}{2}$ line, or in one fruit 2 lines long.—*Benth.* in Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 204.

SERIES GLUMACEÆ.

Order CENTROLEPIDÆÆ.

CENTROLEPIS, Labill.

C. polygyna, *Hieron.*, Centrol. 96; Fl. Austr. vii. 203. Though slender and sometimes very small, this species is more rigid than its

nearest allies. Leaves capillary, usually 3 or 4 lines long. Scapes in the typical form usually about 1 in. long, though occasionally more than twice or scarcely half as much, of a rather dark colour as well as the floral bracts, which are close together, narrow, erect, rigid, glabrous, about 2 lines long, the outer one with a rigid awn at least as long and sometimes above twice as long, the inner one with a very short point. Flowers solitary or very rarely 2 together in the inner or upper bract, with a thin hyaline scale in all the specimens examined. Filament usually shortly adnate to the axis of the carpels, which I have not observed in other species. Carpels varying from about 6 to above 20; styles very shortly connate.—*Benth.* in *Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl. 207.*

Order CYPERACEÆ.

TRIBE SCIRPEÆ.

CYPERUS, Linn.

C. subulatus, *R. Br.*, *Prod.*; *Fl. Austr.* vii. 281. Stems from a creeping rhizome rather slender, under 1 ft. high in the specimens seen. Leaves very narrow, often as long as the stems. Spikelets in dense clusters or short spikes in an umbel of few rays. Involucral bracts very narrow, almost filiform, 1 or 2 of them longer than the inflorescence. Spikelets brown, linear, acute, not very flat, 6 to 8 lines long and scarcely 1 line broad, 12 to 20-flowered, the rhachis bordered by hyaline wings. Glumes very narrow, erect but not very closely imbricate, acute or scarcely obtuse, the keel green, 3-nerved or sometimes 5-nerved, the sides brown and nerveless. Style 3-cleft. Nut rather broad, triquetrous, more than half the length of the glume.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl. 211.*

FIMBRISTYLIS, Vahl.

SECTION ABILDGAARDIA.

F. recta (n. sp.) Stems erect from a shortly creeping knotted rhizome, $1\frac{1}{2}$ to 2 ft. high, rather slender, flattened, sulcate-striate and rather rough. Leaves somewhat distichous, 6 to 9 in. long, $1\frac{1}{2}$ line broad, the end blunt with a small point, rather thick and rigid, the margins slightly rough, sheaths rather loose, with a more or less broad hyaline margin, which is more conspicuous on the lower sheaths, which are wanting in lamina. Spikelet solitary, erect, ovate to ovate-lanceolate, slightly flattened, $\frac{1}{2}$ to 1 in. long, 4 or 5 lines broad. Glumes more or less spiral, ovate, about 3 lines long, very thin, almost hyaline, deep-brown except the keel, which in the lower empty ones is often produced into a point. Stamens 3. Style slightly dilated, glabrous

or nearly so, branches 2 or 3. Nut white, pyriform, with 3 angles and tuberculate between them.

Hab.: Near Northcote.—*R. C. Burton*, 1878.

TRIBE RHYNCHOSPOREÆ.

SCHÆNUS, Linn.

SERIES LAXÆ.

Spikelets under $\frac{1}{2}$ -in. long, few, on slender pedicels. Hypogynous bristles usually present. Leaves at the base of the stem very narrow or subulate.

S. indutus, *F. v. M.* in *Fl. Austr.* vii. 372. Stems slender, attaining about 1 ft., at first clothed with long spreading hairs, but the older ones often glabrous. Leaves few at the base of the stem, almost subulate, 1 to 3 in. long, the outer ones with a short open sheath, the inner sheath close and slightly membranous at the orifice. Panicle very loose, few spikelets, all on long pedicels, solitary or clustered in the axils of short, slender, dark-brown, sheathing bracts. Spikelets dark-brown, lanceolate, flattened, about 3 lines long, with 2 or 3 flowers. Glumes very acute or the inner ones obtuse, 4 to 6 outer empty ones gradually shorter with the points sometimes slightly spreading. Hypogynous bristles 6 or fewer, very irregular, 1 or 2 longer than the young nut, the others often very small. Stamens 3. Nut not seen ripe.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 215.

TRIBE SCLERIEÆ.

SCLERIA, Berg.

S. ustulata (n. sp.) (So named from the scorched appearance of the spikelets.) A tall, erect, slender plant attaining 4 or more feet in height, of a deep-green colour except the spikelets. Stems triangular and leafy throughout. Leaves long and narrow, not at all or very slightly scabrous on the keel and margin, the sheath not winged, and no ligula. Inflorescence an umbelliferous panicle, the rays or branches of unequal length, very slender, the longer ones exceeding 3 in.; bracts setaceous. Spikelets 1 or 2 lines long, dark, on very slender stalks. Glumes closely imbricate, obtuse, the margins light-brown, the rest part of a dark colour nearly black. No spikelets of male flowers amongst the specimens examined. Nut nearly globular but at times showing 3 angles, almost purple, and about 1 line diameter in the Northern specimen; the nuts of the Southern plant are oblong, nearly 2 lines long, greenish-brown, showing slight angles and purple spots.

Hab.: Bellenden-Ker, at 4,000 to 5,000 ft. Amongst the specimens brought down, however, I find no male flowers. Wherever there was open space on the summit of Bellenden-Ker this dark-green graceful sedge formed dense patches. Some fruiting specimens sent to me from the Tweed River, in June, 1884, by Mr. Thos. Steel, seem identical with the Northern plant.

Order GRAMINEÆ.

TRIBE PANICEÆ.

PASPALUM, Linn.

P. pubescens, *R. Br.*, Prod.? If I am correct in identifying the plant, common at Harvey's Creek, as Brown's plant, then I think, if not allowed to rank as a species, it should undoubtedly as a marked variety. The whole plant is softly pubescent, attains about 2 ft. in height, is of spreading habit, and roots from the lower nodes. The leaves are broad with loose sheaths, the short scarious ligula hidden in long silky hairs; panicle of from 8 to 14 somewhat erect spikes, the longest of which are about 2 in.; spikelets orbicular, about $\frac{1}{2}$ -line diameter; glumes covered with a short purplish pubescence.

Hab.: Harvey's Creek, one of the creeks running into Russell River.

The description given in Brown's Prodrômus is insufficient to identify the plant without having a typical specimen to compare with. This Harvey's Creek grass, however, is so very distinct from the *P. orbiculare*, Forst., which—with *P. polystachyum* and *P. pubescens* of R. Brown—Bentham, in Fl. Austr. vii. 460, places under *P. scrobiculatum* of Linnæus, that I think it should be kept distinct.

PANICUM, Linn.

P. Prenticeanum (n. sp.) (After Dr. Chas. Prentice, who has paid much attention to *Gramineæ*.) A tall branching grass often attaining over 10 ft. in height. Stems slender, hard, seldom exceeding $\frac{1}{4}$ -in. diameter, often rooting from the lower nodes; upper nodes with a ring of short silky hairs. Leaves 6 to 10 in. long, $\frac{1}{2}$ -in. broad, tapering into long narrow points; midrib prominent, slightly pubescent; sheaths very loose and pubescent, much shorter than the lamina; ligula ciliate. Panicle about 6 in. long; rhachis pubescent, pedunculate above the last leaves, much branched, the branch slender erecto-patent, the lower ones often clustered. Spikelets pedicellate, about 1 line long, slightly pubescent. Outer glume scarcely acute, half or three-fourths the length of the others, 3-nerved; second and third glumes nearly equal and more or less distinctly 5-nerved; fruiting glume hard and glossy, sometimes showing 1 or 3 keels. Styles shortly united. Stigmas densely plumose, of a purple colour.

Hab.: Harvey's Creek, Russell River, and Tringilburra Creek; very abundant on the rich scrub lands, attaining frequently the height of 15 or more feet. The same grass is met with in New Guinea, as would appear from fragments having been received by the writer from the late Mr. C. H. Hartmann. Although a true *Panicum*, this fine species much resembles an *Isachne*.

P. vicinum (n. sp.) A creeping grass, rooting copiously from the lower nodes, ascending stems attaining from 1 to $1\frac{1}{2}$ ft. in height. Leaves lanceolate, hairy, 2 or 3 in. long and nearly $\frac{3}{4}$ -in. wide in

the broadest part, the points often much elongated, rounded to the contracted base; sheaths loose, pubescent; ligula more or less prominent and ciliate. Panicle narrow, about 6 in. long, of few erect slightly divided branches. Spikelets narrow, 2 or 3 lines long; the glumes rather distant, all except the fruiting one acute; keels rough, margins hyaline, of the first and second; outer one 3-nerved, three-fourths the length of the next; second and third 3 to 5-nerved, the second one the longest, the third with a rather large broad palea; fruiting glume oblong, smooth and glossy.

Hab.: Harvey's Creek, Russell River, on rich scrub land.

This new species in some respects approaches *P. foliosum*, but is of a much more delicate texture and growth, of differently formed panicle and glumes, the fruiting one not being at all rugose, and the margin of the leaves are not undulate as in *P. foliosum*.

SETARIA, Beauv.

S. viridis, Beauv.; Kunth., Enum., i. 151; Fl. Austr. vii. 494. An annual with the habit of *S. glauca*, but the spike-like panicle looser, 1 to 2 in. long in the typical form, but occasionally nearly twice that, the lower spikelets in distinct clusters or on short branches, the awn-like branches more irregular and often shorter, the asperities directed upwards as in *S. glauca*. Outer glume acute, about half the length of the spikelet; 2nd and 3rd glumes nearly equal, broad, concave, 5 or 7-nerved; fruiting glumes smooth and shining, the minute transverse wrinkles visible only under a lens.—Fl. Austr., l.c.

Hab.: Mansfield Downs.—Mrs. Hugh Moore.

CHAMERAPHIS, R. Br.

C. paradoxa, Poir., Diet. Suppl. ii. 189; Fl. Austr. vii. 499. A smaller plant than *C. spinescens*. Leaves mostly short and spreading. Panicle almost reduced to a simple spike-like raceme, the awn-like branches mostly bearing only a single spikelet near the base, the lower ones only occasionally more elongated with two distant spikelets, the rachis always produced into a long awn exceeding the spikelet. Spikelets acuminate, 4 or 5 lines long. Outer glume broad, thinly membranous, about $\frac{1}{2}$ -line long; second and third glumes nearly equal, striate with many nerves; fruiting glume oblong, acute, nearly 2 lines long, thin and almost nerveless.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 219.

TRIBE ANDROPOGONEÆ.

DIMERIA, R. Br.

D. glabriuscula (n. sp.) A slender, erect, glabrous, slightly branching, annual grass, of from 9 to 18 in. in height. Leaves with narrow erect laminae 1 to $1\frac{1}{2}$ in. long, the ligula truncate, and prominent for the size of leaf and stem. Spikes 2, filiform, $1\frac{1}{2}$ to 2 in.

long; spikelets about 1 line long. Outer glume setaceous, slightly spreading; the others—second with rigid keel and broad hyaline but not ciliate margins; third glume small, hyaline; flowering glume very short, hyaline, with terminal awn about 2 lines, twisted in the lower half.

Hab.: Harvey's Creek.

This new species is nearly allied to *D. tenera*, Trin., but differs from that species in its more rigidly erect growth, besides being glabrous, and wanting the ciliae to the hyaline margins of the second glume.

SORGHUM, Pers.

S. laxiflorum (n. sp.) Decumbent, ascending to 2 or 3 ft., glabrous except the inflorescence and a slight downiness about the nodes, stems somewhat compressed. Leaves narrow, tapering to filiform points; ligula short, scarios, but almost hidden in the longish hairs at the top of the sheath. Panicle nodding, somewhat secund, 2 or 3 in. long, of few capillary branches never verticillate, solitary or in pairs and forked, each bearing usually 2 spikelets, the terminal one awned. Fertile spikelet scarcely 2 lines long, between two ciliate pedicels; outer glume densely clothed with dark-brown or at times light-brown hairs; second glume nearly glabrous, glossy, and of a very dark colour; third glume hyaline; awn over 1 in. long, much twisted in the lower half.

Hab.: Mulgrave River.

The awns of this Mulgrave River grass remind one of the Bunch Spear Grass by the manner in which they twist into knots, but it is a much more delicate grass. In inflorescence it approaches *Chrysopogon*, but the glumes are those of a *Sorghum*.

TRIBE AGROSTIÆ.

STIPA, Linn.

S. scabra, *Lindl.* in *Mitch. Trop. Austr.* 31; *Fl. Austr.* vii. 570. Stems in the typical form slender, tufted, 1 to 2 ft. high. Leaves subulate or filiform, rather short, glabrous or slightly pubescent, the upper sheath scarcely dilated; ligula very short, more or less ciliate. Panicle very loose, 6 to above 12 in. long, with long, capillary, slightly spreading, glabrous branches and pedicels. Outer glumes at first almost hyaline, at length often purplish or rigid, tapering into long points, the longest about $\frac{1}{2}$ -in. long. Flowering glume about 2 lines long, silky-hairy, entire at the top. Awn fine, glabrous, 3 in. long or more. Palea nearly as long as the glume.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 223.

AGROSTIS, Linn. (partly).

Spikelets small, 1-flowered, pedicellate in a loose spreading or narrow panicle, the rhachis of the spikelet articulate above the outer glumes, glabrous or nearly so, not produced beyond the flower. Glumes 3, 2 outer empty ones narrow, keeled, acute, unawned.

Flowering glume shorter, broad, thin, enveloping the flower, unawned or with a dorsal awn, attached below the middle, fine and twisted. Palea not above half the length of the glume, very thin and hyaline, often very minute or none. Styles very short, distinct. Grain enclosed in the glume, free from it.—Fl. Austr. vii. 575.

A. scabra, Willd., Spec. Pl. i. 370; Fl. Austr. vii. 576. Stems slender, tufted, 6 in. to above 1 ft. high. Leaves very narrow, almost filiform in the typical form, chiefly at the base of the stem. Panicle compound, very loose and slender, with spreading capillary branches. Outer glumes narrow, keeled, rather acute, about $\frac{3}{4}$ -line long. Flowering glumes shorter, hyaline, broad and enveloping the flower, obtuse, truncate, or slightly jagged, unawned. Palea none (or very minute?). Stamens 3.

Hab.: Stanthorpe.

TRIBE ISACHNEÆ.

ERACHNE, R. Br.

E. avenacea, R. Br., Prod. Austr. vii. 629. Stems usually about 1 ft. high, slender, the nodes slightly bearded or rarely glabrous. Leaves very fine, subulate, erect chiefly at the base of the stem. Panicle loose, nearly simple or with a few capillary branches bearing 2 or 4 pedicellate spikelets. Outer glumes usually about 3 lines long, very acute or shortly pointed, prominently nerved, glabrous. Flowering glumes glabrous on the back except at the base, the margins ciliate with long hairs, tapering into an awn much shorter than the glume itself. Palea slightly hairy, acutely acuminate.—Fl. Austr., l.c.

Hab.: A form of the above grows on Walsh's Pyramid, Mulgrave River. It is of delicate growth, branching stems, and attains 2 or more feet in height.

E. pallida, F. v. M., Fl. Austr. vii. 631. Stems apparently about 2 ft. high, slender and branching. Leaves flat but narrow, with subulate points, glabrous. Panicle loose but narrow, 2 to 4 in. long, the spikelets all pedicellate. Outer glume glabrous, about 3 lines long, tapering into fine points. Flowering glumes longer, with fine points, but scarcely awned, glabrous on the back except near the base, the margins ciliate with long hairs. Palea hairy, tapering to a fine bifid point.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 225.

TRIBE FESTUCEÆ.

DIPLACHNE, Beauv.

D. Muelleri, Benth., Fl. Austr. vii. 619. A glabrous erect grass of about $1\frac{1}{2}$ ft., nearly allied to *D. fusca*, with a similar foliage and inflorescence, but the spikelets fewer, pale-coloured, 5 to 8 lines long, with 8 to 12 flowers. Flowering glumes surrounded by a tuft of rather long hairs and the margins ciliate below the middle, the point of

the keel scarcely exceeding the hyaline margins, and the lateral nerves occasionally produced into minute points. Grain narrow-obovate, flattened.—*Benth., l.c.*

Hab. : Fragmentary specimens have been received from Mr. Alfred Henry which he collected in the vicinity of the Georgina River.

TRIRAPHIS, *R. Br.*

T. pungens, *R. Br.*, Prod. ; Fl. Austr. vii. 604. A glabrous slender grass of about 2 ft., branching at the base. Leaves chiefly in the lower part, very narrow and convolute, often subulate and rigid. Panicle loose but narrow, 3 to 4 in. long. Spikelets 4 to 5 lines long without awns. Outer empty glumes glabrous, narrow, coriaceous, 3 lines long or rather more, entire. Flowering glume shorter below the division, coriaceous, shortly silky-pubescent, the 3 awns nearly equal, all entire and slightly dilated and rigid at the base.—Fl. Austr., l.c.

Hab. : Islands of the Gulf of Carpentaria.

KELERIA, *Pers.*

(Named after Professor Kohler, a writer on GRAMINEÆ.)

Spikelets 2 or more flowered, flat, shortly pedicellate, numerous in a dense, spike-like, cylindrical or interrupted panicle, the rhachis of the spikelet articulate between the flowering glumes, glabrous. Glumes keeled, acute or produced into short straight awns or points, 2 outer empty ones unequal and scarious on the margins only; flowering glume similar but more scarious or hyaline, the upper ones gradually smaller, the lowest the largest and sessile within the empty ones, the uppermost one or two usually empty. Palea very thin, acutely 2-keeled, 2-toothed or 2-pointed. Styles very short. Grain enclosed in the glume and palea free from them.—Fl. Austr. vii. 639.

K. phleoides, *Pers.* An erect tufted annual of 6 to 12 in., usually glabrous except long cilia on the margins and orifice of the leaf-sheaths. Spike-like panicle 1 to 2½ in. long, cylindrical or when large slightly branched. Spikelets about 2 lines long, with 5 to 7 flowers. Glumes very spreading, the larger ones 1½ line long with a point or awn rarely above 1 line long, the outer empty ones unequal, the lowest small and acute, the second shortly pointed and nearly as long as the flowering ones, the terminal empty glume or glumes usually broader, shorter, and awnless.

Hab. : Stanthorpe, Oct., 1889.

ERAGROSTIS, Beauv.

E. nigra, var. **trachycarpa**, *Benth.*, Fl. Austr. vii. 643. Stems tufted. Leaves narrow, glabrous. Panicle about 1 ft. long, very loose, with long capillary divided branches, bearing few small dark-coloured spikelets on long capillary pedicels, the spikelets ovate, 1 to

2 lines long, loosely 2 to 4-flowered, quite glabrous. Flowering glumes broad, obtuse or scarcely acute, hyaline, the lateral nerves scarcely conspicuous. Palea as long, usually broad. Stamens 3, with small anthers. Grain larger in proportion, globular, prominently rugose-tuberculate.—Fl. Austr., l.c.

Hab.: Stanthorpe.

GLYCERIA, R. Br.

G. Fordiana, *F. v. M.*, Fragm. viii. 130; Fl. Austr. vii. 657. An erect glabrous grass attaining 2 or 3 ft. Leaves flat, very scabrous. Panicle very loose, compound, 4 to 8 in. long, with very spreading capillary branches, mostly in pairs or threes. Spikelets lanceolate, mostly 4 or 5 lines long, 8 to 12-flowered. Outer glumes acute, 3-nerved; flowering glumes 5 or 7-nerved, $1\frac{1}{2}$ line long, surrounded by a tuft of hairs and shortly hairy or pubescent in the lower part, the midrib prominent but not reaching the obtuse hyaline apex, the lateral nerves shorter. Palea-keels scarcely ciliate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 226.

TRIBE BAMBUSEÆ.

BAMBUSA, Schreber.

B. Moreheadiana (n. sp.) The Queensland Climbing Bamboo. (After the Hon. B. D. Morehead.) A rampant climbing plant scaling the tops of the highest trees of the scrubs, and hanging in festoons from the branches, probably the stems extending 200 or more feet in length. The largest diameter of stem measured 2 in., the hollow or pipe about one-third of its diameter; length of internode, under 1 ft.; the whole plant more or less clothed with dark-coloured bristle-like hairs or scales; stem-buds hemispheric, $\frac{3}{4}$ -in. diameter; stem-leaves with a lance-like lamina 2 or 3 in. long; the leafy shoots, which are numerous from the upper nodes, are much flattened, and the lamina of leaf measures from 6 to 10 in. long and from 1 to 2 in. broad, glabrous, with 6 or 7 parallel nerves on each side of the midrib, ending in filiform points, the margins entire except for a few distant minute teeth.

Hab.: Harvey's Creek, Russell River.

Already Baron von Mueller, in the Aust. Journ. of Pharm. 1886, drew attention to a Queensland species of *Bambusa*, but the specimens and the collector's notes he thought insufficient to name the species; and even now, not having seen the inflorescence, by some it may be deemed too early to have given to it specific distinction, but the uncertainty of the flowering of plants of the genus, and that the stems are being put to many useful purposes, is, I consider, sufficient excuse; and when the flowers and fruit are obtained the species can then be placed in the genus or tribe to which it may prove to belong.

Class III. ACOTYLEDONS or CRYPTOGAMS.

Order FILICES.

TRIBE OSMUNDEÆ.

TODEA, Willd.

T. (Leptopteris) Fraseri, *Hook. et Grev.*, Ic. Filic. t. 101; Fl. Austr. vii. 700. Trunk erect, 6 in. to 3 ft. high and seldom over 2 or 2½ in. diameter, more or less bearing the bases of the old fronds; the apex covered by somewhat glossy, short, obtuse scales; the crown of few fronds, generally under 12. Stipes 10 to 15 in. long, terete or nearly so, with few scales, slightly stained with chestnut. Fronds 2 to 3 ft. long, lanceolate in outline, bipinnate; pinnae nearly opposite, about 30 on each side of rhachis, the centre ones about 6 in. long and 1½ in. wide; secondary rhachis narrowly winged; pinnules ¾-in. long, 2½ lines broad, serrately lobed; veins simple or forked, 1 to each tooth or lobe; spore-cases minute, in masses of from 2 to 5 at the base of the pinnule.

Hab.: In a deep rocky gully or creek on the summit of the south peak, Bellenden-Ker.

The thin dark-green pellucid fronds of this fern remind one of the New Zealand species *T. (Leptopteris) hymenophylloides*.

TRIBE HYMENOPHYLLEÆ.

TRICHOMANES, Linn.

T. cuspidatum, *Willd.*, Spec. Pl.; *Hook. et Baker*, Syn. Filic. 73. Fronds distinctly but very shortly stalked, about ½-in. broad, the outer edge rounded and more or less lobed, the base truncate or more or less cuneate; spurious veins distinct. Indusia 1 to 6, the tube sunk in the frond, the mouth dilated, but scarcely 2-lipped.—Syn. Filic., l.c.

Hab.: On the Daintree River.—*Pentzke*, F. v. M. Sou. Sci. Rec. 1883.

T. Motleyi, *Bosch.*, Hymenoph. Javan.; *Hook. et Baker*, Syn. Filic. 73. Fronds copious, imbricated, sessile, about ¼-in. broad cordate-orbicular, nearly entire; spurious veins indistinct, the solitary exerted indusium placed in a deep apical sinus, the mouth spreading and much dilated, but entire.—Syn. Filic., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 229.

T. minutum, *Blume*, Filic. Javan.; Spec. Filic. i. 118. Rhizome filiform, creeping. Fronds densely matted on long slender stipes, the segments much cut or divided; but seems only to differ from *T. proliferum* in its much smaller size.

Hab.: On wet rocks, Whelanian Pools, Bellenden-Ker.

T. proliferum, *Blume*, Filic. Javan.; Spec. Filic. i. 118, t. 39. Rhizome creeping, densely matted. Fronds on long stipes, forked or

branched and entangled, 2 or more inches long, segments deeply palmate or digitately divided into linear obtuse lobes. Indusium sub-cylindrical, mouth obscurely 2-lipped.

Hab.: Whelanian Pools, on damp rocks.

T. digitatum, Swartz; Spec. Filic. i. 119; Fl. Austr. vii. 702. Rhizome filiform. Fronds on rather long capillary stipes, $\frac{1}{4}$ to $\frac{1}{2}$ in. long, deeply and unequally divided into 3 to 6 broadly linear obtuse, entire, or notched lobes, bordered by a few small teeth. Indusia broader than in most species, but embedded in the apex of the lobes, with a very short, open, entire border.—Fl. Austr., l.c.

Hab.: On wet rocks, Upper Nerang Creek.—H. Schneider.

This species is placed in the Queensland Flora provisionally, Mr. Schneider's specimens being all sterile.

T. Barnardianum (n. sp.) (After G. Barnard, who, with E. J. Whelan and A. Meston, was the first to ascend the Bellenden-Ker Range, the habitat of the plant.) Rhizome filiform, bearing short, stiff, dark-coloured, hair-like scales. Fronds mostly under 1 in. long, somewhat ovate to nearly palmate in outline, dark-green, glabrous except for a few minute fuscous elongated scales on the rhachis, pinnate with pinnatifid or bipinnatifid pinnae, or the whole frond bitripinnatifid; ultimate segments narrow-linear, obtuse, with entire margins, decurrent at the base, forming wings to the short stipes; wings ciliate with a fringe of prominent linear, dark-fuscous, hair-like scales; cells throughout very minute. Indusium rather large for the size of the frond, several towards the apex of the frond, urceolate-cylindric, the mouth spreading. Receptacles often long exserted and falcate.

Hab.: On wet rocks, Palm Camp, Bellenden-Ker, 4,000 ft.

This pretty little fern closely approaches the smaller forms of *T. pyxidiferum*, from which it may be easily distinguished by wider fronds, their very minute cell-areolation, and ciliated wings of stipes.

T. pallidum, Blume, Filic. Javan. (*T. glauco-fuscum*, Hook., Spec. Filic. i. 128, t. 40A.) Rhizome creeping, filiform, densely matted, tomentose. Stipes 1 to 2 in. long, wiry. Fronds 2 to 4 in. long, 1 to 2 broad, ovate-lanceolate, acuminate, bipinnatifid, just divided down to a narrowly winged rhachis; lower pinnae ovate-rhomboidal, divided more than halfway down, and the lobes again slightly cut; substance firm, glaucous on the under side and more or less clothed with light-brown hairs. Indusium axillary on the segments on both sides, the tube deeply sunk, the mouth dilated but scarcely 2-lipped.—Syn. Filic in part.

Hab.: On rocks, South Peak, Bellenden-Ker, 5,000 ft.

T. maximum, Blume, Filic. Javan. Rhizome stout, creeping. Stipes strong, erect, 3 to 6 in. long. Frond 12 to 18 in. long, 6 to 9 in. broad, ovate-quadrupinnatifid; pinnae erecto-patent, ovate-lanceolate, the largest 4 to 6 in. long, 2 in. broad; pinnules lanceolate-deltoid, 1 in. or more long, cut down to the rhachis into segments, which are again deeply pinnatifid; ultimate segment $1\frac{1}{2}$ to 2 lines long,

slightly flattened, texture subrigid, surface naked, dark-green; a central costa only in each segment. Indusium 2 to 8 to a pinnule; cylindric, the mouth dilated but not 2-lipped.—Syn. Filic. 86.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 230.

T. apiifolium, Presl.; Hook. et Baker, Syn. Filic. ed. 2, 86; Fl. Austr. vii. 703. Rhizome thick and knotty. Fronds 4 to 8 in. long, broadly ovate-lanceolate in outline, bipinnate with deeply bipinnatifid pinnules. Primary pinnules 1 to 2 in., secondary about $\frac{1}{2}$ -in. long; segments very narrow, linear, thin, 1-nerved. Indusia almost embedded in the short inner lower lobes, the tube shortly turbinate, the border spreading often rather broad, approaching that of a *Hymenophyllum*. Stipes short or long, hispid at the base with spreading bristles. *T. meifolium*, Bory.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 230.

T. Sayeri, F. v. M. et Baker in Britten's Journal of Botany, xxv. 163, 1887.

The above is from Muell. 2nd Syst. Cens. Austr. Pl. 230; but I find no such species mentioned in the work referred to. The only *Trichomanes* mentioned at pages 162 and 163 is *T. parvulum*, Poir?—which implies a doubt as to its being the *T. parvulum* of J. L. M. Poirét. I may here mention that the *Trichomanes* and other half-dozen ferns mentioned in the above notice as having been gathered on Bellenden-Ker were in all probability got on a mountain to the eastward of Bellenden-Ker, and known as "Chickaboogalla," the altitude of which is not over 3,970 ft.; Messrs. Sayer and Davidson not having been on Bellenden-Ker, in fact they had a better field for collecting on Chickaboogalla.

HYMENOPHYLLUM, Sm.

H. tunbridgense, var. exsertum, Bail. The Bristle-bearing Filmy Fern. This fresh form differs in having a long bristle-like exserted receptacle; the indusium also was longer than usual. The receptacle is also exserted in the Lord Howe's Island specimens of this fern, but there the plant is of much coarser growth.

Hab.: Summit of Palm Camp, Bellenden-Ker.

H. trichomanoides (n. sp.) Rhizome nearly or quite glabrous, filiform, creeping up the stems of trees in long strings, seldom if ever forming matted patches on old damp logs. Fronds narrow or broadly lanceolate in outline; sometimes the apex is much elongated, 3 to 5 in. long including the slender stipes, which is generally less than an inch long; the rhachis is very narrowly winged but not the stipes, bipinnate, the lower pinnules often somewhat flabelliform and more or less deeply divided, the upper pinnae of from few to a single lobe, all linear, obtuse, with entire edges. Sori supra-axillary, deeply sunk on one or more of the lobes. Indusium oblong, $1\frac{1}{2}$ line long, the valves entire, obtuse, receptacle always protruding from 1 to more than 2 lines in length.

Hab.: Summit of Bellenden-Ker.

The outline form of this, especially when the pinnae and pinnules are crowded, remind one of *H. polyanthos* of New Zealand, but it does not stain paper, and has not

the fragrance of that fern, besides the difference of indusium and receptacle, which latter gives to this new species the appearance of a *Trichomanes*. Indeed it might be placed in either *Trichomanes* or *Hymenophyllum*; I place it in the latter because the whole of the exerted portion of the indusium consists of the 2 long obtuse lobes.

TRIBE CYATHEÆ.

ALSOPHILA, R. Br.

A. Rebeckæ, var. commutata. Wig Fern-tree. Trunk 6 to 12 ft. or more high, slender, seldom exceeding a diameter of more than 2 in., dark-coloured. Fronds 6 to 8 ft. long, the stipes shortly appressed to the trunk for a few inches, and more or less clothed with simple or furcated long hair-like scales, which with the metamorphosed lower pinnae crown the stem with a wig-like growth, the divisions of which growth are narrow, much forked, and very intricate, hymenophylloid, and of a greenish or sometimes purplish colour, the larger pinnae about 2 ft. long, pinnules 2 to 4 in. long, the attenuated apex prominently serrated, the lower base with a rounded auricle, at times prominent, the upper truncate and parallel to the secondary rhachis. Veins forked with 3 or 4 branches, alternating with simple ones. Sori forming erect heaps in one or two rows on the middle of the veins.

Hab.: Bellenden-Ker, in a damp gully at an altitude of 4,000 ft.

This form, in the metamorphosis of its pinnae and pinnules, resembles the old species *A. capensis*, and under that species I placed it in my report on the botany of the Bellenden-Ker district. Baron Mueller, however, correctly points out its nearer approach to *A. Rebeckæ*, but the curious change noticed in this form I never saw taking place in the typical form of that species, although many trees were growing in the same locality.

A. Robertsiana, F. v. M., Fragm. v. 54, 117; Fl. Austr. vii. 712. Slender-stemmed Fern-tree. Trunk slender, smooth, 10 to 12 ft. high, elongated beyond the last fronds, which latter do not form the usual crown, but are somewhat distantly placed on the stem.

Hab.: Palm Camp, Bellenden-Ker.

TRIBE POLYPODIEÆ.—SERIES A.

DAVALLIA, Sm.

D. tripinnata, F. v. M., Fl. Austr. vii. 717. Hairy Fern. The fronds, which are clothed with soft white hairs, form a most graceful tuft at the end of a very shortly creeping rhizome. The plant is abundant upon the damp rocks of dark close gullies.

This is one of the most lovely of ferns, and until quite lately was only known from a single frond brought by Mr. Walter Hill from the Bellenden-Ker Range in 1873.

VITTARIA, Sm.

V. (Tæniopsis) falcata, Kunze; Fée, Vittar. p. 20, t. 4, f. 1; *Hook.*, Spec. Filic. v. 182; Syn. Filic. 395. Fronds 4 or 5 in. long, $\frac{1}{8}$ -in. broad, the point blunt, the lower part narrowed gradually to the base; texture leathery and very thick; a distinct raised midrib

attaining the apex in the barren fronds, but lost in the fertile ones; veins short, oblique, parallel, immersed; sori quite sunk in slightly intramarginal grooves.

Hab.: Bellenden-Ker.—*Sayer*, F. v. M. Sou. Sci. Rec. 1887.

V. (Tæniopsis) wooroonooran (n. sp.) (Name, the aboriginal one for Bellenden-Ker.) Rhizome erect or slightly repent, clothed with long, light-brown, linear-lanceolate scales. Fronds 1 to 1½ in. long, 2 or 3 lines broad, coriaceous, spreading horizontally, very obtuse, tapering to a very short stipes, bearing minute, scattered, setose scales; veins once forked from a central costa, but both concealed by the thick substance of the frond; sori continuous in a groove more or less distant from the margin on the upper part of the frond, but never meeting at the apex.

Hab.: On rocks amongst moss at an elevation of from 4,000 to 5,000 ft., Bellenden-Ker.

In some respects this species approaches *V. falcata* and *V. minor*, but is equally distinct from both.

PTERIS, Linn.

P. aquilina, *Linn.*; **var. lanuginosa**, *Hook.*, Spec. Filic. ii. 196. The Woolly Bracken. At between 2,000 and 5,000 ft. above sea-level we found some good-sized patches of this fern. It is a tall strong plant, very hard, but, from being closely covered with soft woolly down, has a somewhat soft appearance, and grows in intricate masses 5 or 6 ft. high, very difficult to pass through.

BLECHNUM, Linn.

B. Whelani (n. sp.) (After Sergt. E. J. Whelan, to whom the members of the expedition were greatly indebted for assistance.) Rhizome slender and erect, from 3 to 6 in. high, densely paleaceous at the summit, with ferruginous scales, and bearing a crown of many dark-green fronds; stipes blackish, slightly scabrous, clothed at the base with dark linear scales, about 1 ft. long and slender; the frond or leafy portion of about equal length with the stipes, bearing about 15 nearly opposite linear-lanceolate pinnae 3 to 6 in. long, the lowest of which are petiolulate, the central ones sessile, and one or two of the terminal ones having their bases adnate to the rhachis, the margins serrated, teeth small and blunt, except those of the elongated point; veins simple or once forked; sori close to the costule on the lower half or three-fourths of the pinna.

Hab.: Bellenden-Ker, at an elevation of from 4,000 to 5,000 ft. above sea-level.

ASPLENIUM, Linn.

A. Hookerianum, *Colens.*; *Hook.*, Spec. Filic. iii. 194; Syn. Filic. 213; Fl. Austr. vii. 747. A small tufted fern. Fronds rarely above 6 in. long, slender but rather rigid, mostly bipinnate, the rhachis slightly scaly-hairy. Primary pinnae in the lower part of the frond ½ to 1 in. long, with 6 to 10 distinct, oblong-cuneate, dentate

segments 1 to 2 or rarely 3 lines long, the lower ones tapering to a petiole, the upper ones as well as the upper pinnæ small and confluent. Veins diverging, free. Sori few, usually only 1 or 2 on each segment, large in proportion.

The above is Hooker's description in the work quoted. Our plant is a form differing as under :—

A. Hookerianum, *Colens.*, var. Rhizome erect or shortly repent, the crown and base of stipes densely clothed with dark-brown scales; stipes tufted, slender, 4 or 5 in. long, dark-brown and slightly scaly. Fronds bipinnate, narrow-lanceolate, in outline attaining 8 in. in length, and not over 3 in. wide in the broadest part; pinnules cuneate, the lower ones often divided to the base, the end inciso-dentate. Sori usually long and narrow.

Hab. : Whelanian Pools.

ASPIDIUM, Swartz.

A. ramosum, var. **lineare**. Rhizome pubescent, very slender, climbing like ivy up to stems of trees and shrubs, often 10 or 12 ft. Fronds crowded, linear in outline, 6 to 15 in. long and seldom exceeding 1 in. broad; pinnæ 30 to 40 on each side of the rhachis, not exceeding 8 lines long in the centre of frond and much smaller towards each end, obliquely oblong, the upper margin slightly crenulate, with a short blunt auricle at the base, lower margin nearly straight, base parallel with the rhachis; terminal pinna lanceolate or somewhat rhomboidal; veins once forked; sori on the end of the upper branch usually at a distance from the margin.

Amongst the many forms of *A. ramosum* that have been considered distinct by botanists I cannot find one that fully agrees with the present, so think it better to give it a distinctive name. During the past few months, while on and about Bellenden-Ker, I have found it always the same in both habit and form, and even when growing with the normal form it is at once detected; the fronds being always long and narrow, and crowded so closely on the slender rhizome as to appear massed together.

Hab. : Tringilburra Creek.

A. acuminatum, var. **villosum**. This delicate fern is met with only, so far as at present known, on the summit of Bellenden-Ker. It has a shortly creeping rhizome, more or less covered at the end with broad brown scales; the stipes are slender, 3 to 6 in. long, clothed with short soft hairs, and a few scales at the base. Fronds somewhat deltoid, 3 to 7 in. long and broad; rhachis and midrib densely clothed with rather long soft white hairs. Sori scanty on the few fronds gathered.

Hab. : South Peak, Bellenden-Ker.

SERIES B.

POLYPODIUM, Linn.

P. fuscopilosum, *Baker et F. v. M.*, Britt. Journ. Bot. xxv. 163. Rootstock short-creeping, hypogæous. Fronds contiguous,

nearly sessile, lanceolate, simply pinnate, moderately firm in texture, erect, elastic, green and copiously clothed with short brown hairs on both surfaces, 4 to 5 in. long, $\frac{1}{2}$ to $\frac{3}{4}$ in. broad at the middle, narrowed gradually to both ends. Pinnæ very numerous, broadly adnate at the base, contiguous, entire, lanceolate, subobtuse, the central ones $\frac{1}{4}$ to $\frac{1}{2}$ in long, 1 to $1\frac{1}{2}$ line broad. Veins distinctly visible; costa zigzag; veinlets few, erecto-patent, simple. Sori globose, medial, slightly immersed. Intermediate between *P. parvulum*, Bory, and *P. fuscatum*, Blume.—*Baker, l.c.*

Hab.: Bellenden-Ker, at 4,000 to 5,000 ft., on rocks and tree-trunks. The species was first determined from specimens gathered by Messrs. Sayer and Davidson on Chickaboogalla.

P. albosetosum (n. sp.) (Name referring to the white bristle-like hairs in the sori.) Rhizome erect or very shortly creeping, the blunt apex covered by broadly ovate, imbricated, light-brown scales. Fronds tufted, all under 2 in. long and 3 lines broad, tapering from a broad obtuse end to very short stipes, which seldom if ever exceed 3 lines in length, hairy throughout with light-coloured fine hairs, those of the stipes short and strigose, those of the frond soft and rather long, and all of a very light colour, nearly white; veins simple or once forked; sori orbicular, with bristle-like white hairs amongst the spore-cases, at the apex of fork of the vein, and forming a single row on each side of the costa on the upper portion of the frond.

Hab.: On rocks and stems of trees, Bellenden-Ker, at an altitude of from 4,000 to 5,000 ft.

This small fern is closely allied to *P. Hookeri*, but separated by the form of the scales, colour of the hairs—which do not form so decided ciliae to the margins—and general appearance.

NOTHOLÆNA, R. Br.

N. glabra, *Bracken.*; *Hook.*, Spec. Filic. v. 115; from Bracken. Fil. U. S. Expl. Exp. 21. Rhizome tufted. Fronds 4 to 6 in. long on slender stipes, nearly or quite glabrous, lanceolate to ovate-lanceolate in outline, bitripinnate, primary and secondary divisions ovate-oblong and obtuse, the ultimate divisions or segments 2 or 3 lines long and 2 lines broad. Oblong, irregularly cut into obtuse lobes.—*Hook., l.c.* Venation obscure. Sori completely those of *Notholæna*, without any trace of indusium and following the sinuosities of the frond.

Hab.: Near Brisbane, *Dr. Prentice*; to whom I am indebted for description of sori. Fertile fronds were before unknown; at least Hooker's specimens received from Brackenridge were sterile, and it is probable that all the specimens collected were the same.

GRAMMITIS, Swartz.

G. (Selligiea) membranacea, *Blume*, Fil. Jav. 123, t. 52, f. 2. Rhizome slender, creeping, climbing up the stems of trees by the aid of adventitious roots emitted from the under side, the upper surface densely paleaceous, with rather long, dark-brown, narrow

scales. Fronds membranous, somewhat distantly placed on the rhizome, simple or variously lobed, and either form soriferous, glabrous, 6 to 12 in. long, tapering to a rather long stipes and elongated apex, the undivided fronds attaining a width of 2 in. in the widest part, lobes on the divided ones from 1 to 12, spreading tapering towards the point, but cut down so as to leave but a wing on the costa in the sinus about $\frac{1}{4}$ or $\frac{1}{2}$ in. wide, the segments varying from 1 to 4 in. long; venation rather open, forming large hexagonal areoles containing forked free veinlets; sori in short lines or oblong masses, often not exceeding 2 or 3 lines on the divided fronds, and distant from the costule, but on the entire simple fronds often reaching from near the costa to near the margin, but these lines are frequently interrupted.

Hab.: Bellenden-Ker, at an elevation of 4,000 ft.

The habit of this fern and its variously formed fronds reminds one of *Polypodium scandens*, Forst., and further, when dry, it possesses the same fragrance as that and some allied *Polypodiums*. To pteridologists, the meeting of this species, bearing its various forms of foliage, is most interesting, as it saves the mistake being made of multiplying species, and completes the description of an old species. *G. Sayeri*, F. v. M. and Baker, has been named from fronds of this species; and in all probability *G. Wrightii*, Hook., is but another form. I might here remark that probably Mr. Baker was not far wrong when he placed the Queensland fern, *G. ampla*, F. v. M., under *G. elliptica*, for it varies greatly in the form of the fronds. In cultivation, the fronds are much smaller and often entire, and these as frequently bear sori as the more developed deeply lobed ones. On starved plants, indeed, of *G. ampla*, the almost only distinctive mark to separate it from *G. membranacea* is its broad flattish rhizome and a slight difference, perhaps, in the venation.

Order MUSCI.

TRIBE DICRANEÆ.

ANISOTHECIUM, Mitt.

Tufted diœcious or monœcious mosses, with slightly divided stems. Leaves narrow, scarcely shining, somewhat soft, areolation pellucid; perichætialia somewhat diversiform. Thecæ on stout elongated peduncles, firm, operculum rostrate, peristome-teeth strong and somewhat broad.—South American Musci, *W. Mitten*.

A. pycnoglossum, *Broth.* (n. sp.)

Hab.: Mulgrave River.

BRUCHIA, Schw.

B. Whiteleggei, *C. M.*

Hab.: Beenleigh.—*C. J. Wild.*

DICRANUM, Hedw.

D. suberectum, *Hampe.*

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

TREMATODON, Cl. Rich.

T. longescens, *C. M.*Hab. : Beenleigh.—*C. J. Wild.***T. Baileyi**, *Broth.* (n. sp.)

Hab. : Mulgrave River.

HOLOMITRIUM, Brid.

H. perichætiale, *Brid.*Hab. : Pimpama.—*C. J. Wild.*

LEUCOLOMA, Brid.

L. serratum, *Broth.* (n. sp.)

Hab. : Mount Mistake.

L. austro-scoparium, *C. M.* in Melb. Herb.

Hab. : Summit of Bellenden-Ker, 5,000 ft.

L. subintegrum, *Broth.* (n. sp.)

Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

LEUCOPHANES, Brid.

L. australe, *Broth.* (n. sp.)

Hab. : Freshwater Creek, Trinity Bay.

CAMPYLOPUS, Brid.

C. pudicus, *Hornschr.*

Hab. : Brisbane River scrubs.

C. subtorquatus, var. **flavifolius**, *C. M.*Hab. : Pimpama and Burpengary.—*C. J. Wild.*

TRIBE LEUCOBRYEÆ.

LEUCOBRYUM, Hampe.

L. vesiculosum, *C. M.* in Melb. Herb.

Hab. : Whelanian Pools, Palm Camp, and Harvey's Camp, Bellenden-Ker.

TRIBE TORTULEÆ.

WEISIA, Hedw.

W. pimpamæ, *C. M.* (n. sp.)Hab. : Pimpama Creek.—*C. J. Wild.***W. (Hyophila) angustifolia**, *C. M.* (n. sp.)Hab. : Toowoomba.—*C. J. Wild.***W. (Hyophila) pugionifolia**, *C. M.* (n. sp.)Hab. : Burnett River, *C. T. Musson*; Brisbane River, *H. Tryon.*

TRIBE ORTHOTRICHEÆ.

MACROMITRIUM, Brid.

M. pusillum, *Mitt.*

Hab. : Pimpama, *C. J. Wild.*; Tringilburra Creek.

M. caloblastroides, *C. M.* (n. sp.)

Hab. : On trees, Brisbane River scrubs.

M. dimorphum, *C. M.* (n. sp.)

Hab. : On trees, Taylor's Range.

M. macronulatum, *C. M.* (n. sp.)

Hab. : Burpengary.—*C. J. Wild.*

M. Hartmanni, *C. M.*

Hab. : Gympie.—*C. T. Musson.*

SCHLOTHEIMIA, Brid.

Tufted, creeping, usually dark-coloured mosses, with erect short branches, growing in tufts on trees. Stems and branches red-brown or blackish below, yellow or greenish at the tips. Leaves imbricated all round, oblong; cells circular, opaque, punctiform. Fruit-stalk terminal, long or short. Capsule erect, subcylindric, smooth or grooved, not annulate. Teeth in 2 rows; outer 16, in pairs, revolute; inner 16 or more, irregular, erect, conniving and forming a cone. Operculum conical, beaked. Calyptra conical or mitriform, rough at the tip, 4 or more lobed at the bottom, the lobes inflexed.—*Hook.* in *N. Z. Fl.*

S. Baileyi, *Broth.* (n. sp.)

Hab. : Summit of Bellenden-Ker, 5,000 ft.

TRIBE BRYEÆ.

BRYUM, Linn.

B. Baileyi, *Broth.* (n. sp.)

Hab. : Freshwater Creek, Trinity Bay.

B. synoicum, *C. M.*

Hab. : Bunya Mountains.

RHIZOGONIUM, Brid.

R. brevifolium, *Broth.* (n. sp.)

Hab. : Bellenden-Ker.

TRIBE HOOKERIEÆ.

HOOKERIA, Sm.

Monœcious or diœcious mosses. Stems prostrate or creeping, rarely suberect, variously branched, often pinnately; branches usually compressed or quite flat. Leaves usually membranous, imbricate all

round, or distichous; lateral often dissimilar, stipule-like and oblique; no nerves, or 1 or 2; cells lax, rhomboid or hexagonal. Fruit-stalk lateral, slender, often recurved at the top. Capsule ovoid, cernuous; annulus obscure or none; peristome double; outer of 16 lanceolate-subulate incurved teeth, ribbed on the outer face, trabeculate on the inner; inner a membrane divided into 16 keeled teeth, with rarely interposed cilia; operculum beaked. Calyptra mitriform, naked or fringed at the base.—*Hook.*, N. Z. Fl. 492.

H. (Callicostella) Baileyi, *Broth.* (n. sp.)

Hab.: Harvey's Creek.

TRIBE NECKEREEÆ.

CRYPHÆA, *Brid.*

C. viridissima, *C. M.*

Hab.: Pimpama.—*C. J. Wild.*

PTYCHOMNION, *J. Hook. et Wils.*

P. aciculare, *Labill.*

Hab.: Palm Camp, Bellenden-Ker.

PTEROBRYUM, *Hornsch.*

P. (Trachyloma) recurvulum, *C. M.* (n. sp.)

Hab.: Bellenden-Ker.

METEORIUM, *Brid.*

M. filum, *C. M.* (n. sp.)

Hab.: Port Curtis.—*C. T. Musson.*

M. sigmatophyllum, *C. M.* in *Melb. Herb.*

Hab.: Top Camp, Bellenden-Ker, 5,000 ft.

PHYLLOGONIUM, *Brid.*

P. cymbifolioides, *C. M.*

Hab.: Pimpama Scrub.—*C. J. Wild.*

TRIBE STERIODONTEÆ.

ENTODON, *C. M.*

E. flaccidisetus, *C. M.* (n. sp.)

Hab.: North Pine.—*C. T. Musson.*

ISOPTERYGIUM, *Mitt.*

I. byssicaule, *C. M.*

Hab.: Brisbane scrubs.

ECTROPOTHECIUM, *Mitt.*

E. umbilicatum, *C. M.*

Hab.: Gympie, *C. T. Musson*; Bellenden-Ker, *Bail.*

TRIBE HYPNEÆ.

FABRONIA, Raddi.

F. brachydontia, *C. M.* (n. sp.)

Hab. : Brisbane River scrubs.

RHYNCHOSTEGIUM, Schimp.

R. nano-pennatum, *Broth.* (n. sp.)

Hab. : Bellenden-Ker:

RHAPHIDOSTEGIUM.

R. ovale, *Broth.* (n. sp.)

Hab. : Tringilburra Creek.

THUIDIUM, Schimp.

T. pennula, *C. M.* (n. sp.)Hab. : North Pine.—*C. T. Musson.***T. pennula**, *C. M.*; var.

Hab. : Bellenden-Ker, at 4,000 ft.

T. obtusi-rameum, *Broth.* (n. sp.)

Hab. : Bunya Mountains.

T. erectum, *Hpe. et C. M.*Hab. : North Pine River.—*C. T. Musson.***T. pallido-limbatum**, *Broth.* (n. sp.)

Hab.

CHÆTOMITRIUM.

C. nematosum, *Broth.* (n. sp.)

Hab. : Harvey's Creek, Russell River.

TRICHOSTELEUM.

T. Kerianum, *Broth.* (n. sp.)

Hab. : Harvey's Creek, Russell River.

TRIBE SKITOPHYLLÆ.

FISSIDENS, Brid.

F. incurvo-bryoides, *C. M.* (n. sp.)

Hab. : Mount Mistake.

F. Whiteleggei, *C. M.*Hab. : Nerang.—*H. Schneider.***F. liliputano-incurvus**, *C. M.* (n. sp.)Hab. : Beenleigh.—*C. J. Wild.***F. liliputano-bryoides**, *C. M.* (n. sp.)Hab. : Victoria Park.—*H. Tryon.*

F. obtuso-acuminatus, *C. M.* (n. sp.)Hab. : Brisbane.—*C. J. Wild.***F. tenellus**, *Hook. et Wils.*Hab. : Ashgrove, Enoggera Creek.—*C. J. Wild.***F. oblongifolius**, *Hook. et Wils.*Hab. : Moreton Island.—*H. Tryon.***F. Kerianus**, *C. M.* (n. sp.)

Hab. : Mulgrave River.

Order HEPATICÆ.

SARCOMITRIUM, Mitt. (ANEURA.)

Fronde pinnatifid or 2-pinnate, sinuate, rather thick, with a broad undefined nerve or none. Inflorescence diœcious. Fruit from the margin of the frond underneath. Involucre short, cup-shaped, torn. No perianth. Calyptra subcylindric, fleshy. Capsule ovoid or oblong, on a slender fruit-stalk; elaters attached to the tips of the valves, each with a single broad fibre. Antheridia immersed in marginal receptacles.—*N. Z. Fl.* 543.

S. (Aneura) multifidum, *Mitt.*

Hab. : In still water, Bowen Park, Brisbane.

ASTERELLA.

A. hemisphærica, *Beauv.*

Hab. : Brisbane.

BALANTIOPSIS, Mitt.

B. diplophylla (*Taylor*), *Mitten.*

Hab. : Helidon.

BAZZANIA, Gray.

B. filiformis, *Steph.*Hab. : Bellenden-Ker.—*Sayer and Davidson.***B. acereta**, *L. et L.*

Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

B. Mittenii, *Steph.*

Hab. : Near Brisbane.

CEPHALOZIA, Dunn.

C. dentata, *Raddi.*Hab. : Brisbane.—*C. J. Wild.*

DENDROCEROS, Nees.

D. Muelleri, *Steph.*Hab. : Bellenden-Ker.—*W. A. Sayer.*

FIMBRIARIA, Raddi.

F. Whiteleggeana, *Steph.*

Hab.

FRULLANIA, Raddi.

F. reptans, *Mitt.*Hab. : Toowoomba.—*C. J. Wild.***F. exigua**, *Steph.*Hab. : Toowoomba.—*C. J. Wild.***F. pentapleura**, *Tayl.*Hab. : Brisbane.—*C. J. Wild.***F. nodulosa**, *Nees.*

Hab. : Harvey's Creek.

F. Hampeana, *Nees.*Hab. : Toowoomba, *C. H. Hartmann* ; Brisbane River, *Amalie Dietrich.*

JUNGERMANNIA, Linn.

J. hirtella, *Web.*

Hab. : Summit of Bartle-Frere.

NARDIA, Gray.

N. montana, *Steph.* = JUNGERMANNIA MONTANA.Hab. : Bellenden-Ker.—*Karsten.***N. fragilis**, *Steph.* (n. sp.)

Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

ACROLEJEUNEA.

A. novæ-guineæ, *Steph.*Hab. : Trinity Bay.—*W. A. Sayer.*

COLOLEJEUNEA.

C. trichomanis, *Gottsch.*Hab. : Bellenden-Ker.—*Karsten.*

HYDROLEJEUNEA.

H. sacculifera, *Steph.*

Hab. : Rockingham Bay.

H. Sayeri, *Steph.*Hab. : Trinity Bay.—*W. A. Sayer.*

ENOSMOLEJEUNEA.

E. Baileyana, *Steph.* (n. sp.)

Hab. : Bellenden-Ker.



LEPTOLEJEUNEA.

- L. denticulata**, *Steph.*
Hab. : Bellenden-Ker.—*W. A. Sayer.*

MASTIGOLEJEUNEA.

- M. phœa**, *Gottsch.*
Hab. : Rockhampton.—*F. v. M.*

PTYCHOLEJEUNEA.

- P. Stephensoniana** ? (*Mitten.*)
Hab. : Johnstone River.—*Christie Palmerston.*

PYCNOLEJEUNEA.

- P. longidens**, *Steph.*
Hab. : Port Denison.—*Shaw.*

LEPIDOZIA, Nees.

- L. capilligera**, *Lindl.*
Hab. : Brisbane.—*C. J. Wild.*

- L. procera**, *Mitt.*
Hab. : Cooktown.—*A. Rose.*

MASTIGOBRYUM, Nees.

- M. novæ-hollandiæ**, *Nees.*
Hab. : Brisbane.

MARCHANTIA, Linn.

- M. tubularis**, *Nees.*
Hab. : Brisbane.—*C. J. Wild.*

PLAGIOCHILA, Nees. et Mont.

- P. Dicksoni**, *Hook. et Tayl.*
Hab. : Near Brisbane.
- P. Mittenii**, *Steph.*
Hab. : Freshwater Creek, Trinity Bay.
- P. Baileyana**, *Steph.* (n. sp.)
Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.
- P. pendula**, *Hampe.*
Hab.
- P. arbuscula**, *L. et L.*
Hab. : Whelanian Pools, Bellenden-Ker.
- P. flexuosa**, *Steph.*
Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

P. Teysmanni, *Lac.*

Hab.: Bellenden-Ker, at 2,000 to 4,000 ft.

P. Brotheri, *Steph.*

Hab.

P. fasciculata, *Ldbg.*

Hab.: Rockingham Bay, *F. v M.*; Bellenden-Ker, *W. A. Sayer.*

PORELLA, *Dill.***F. Cranfordi**, *Steph.*

Hab.: Toowoomba, *C. H. Hartmann*; Brisbane.

P. Stangeri, *Ldbg.*

Hab.: Brisbane.

RADULA, *Dum.***R. javanica**, *Gottsch.*

Hab.: Trinity Bay, *W. A. Sayer*; Tringilburra Creek, Freshwater Creek, and Mulgrave River.

RICCIA, *Mich.***R. cartilaginea**, *Steph.* (n. sp.)

Hab.: Milton.—*J. G. Cribb.*

R. vesiculosa, *C. et P.*

Hab.: Bundaberg.—*J. Keys.*

STEETZIA, *Lehmann.*

Fronds linear, more or less dichotomously branched, with a midrib. Inflorescence diœcious. Involucre at first terminal, dorsal by the subsequent elongation of the frond, seated on the midrib, cup-shaped, torn. Perianth tubular; mouth toothed. Calyptra as long, torn at the apex. Capsule on a slender fruit-stalk, ovoid; elaters free, with 2 fibres. Antheridia dorsal, on the midrib, covered by minute fimbriated leaves.—*N. Z. Fl.* 541.

S. Lyellii, *Nees.*

Hab.: Brisbane.—*C. J. Wild.*

SYMPHYOGYNA, *Mont. et Nees.*

Fronds membranous, linear, dichotomously or flabellately branched, stalked, arising from a creeping rhizome, midrib stout. Inflorescence monœcious or diœcious. Fruit from the nerves, usually at the forks. Involucre a toothed scale. Perianth none. Calyptra smooth, exserted, coriaceous, fimbriated at the apex by abortive pistillidia. Capsule on a slender fruit-stalk, 4-valved; valves often cohering by their apices; elaters with 2 spiral fibres. Antheridia in the midrib; perigonal leaves imbricate, tumid, incised, membranous.—*Hook.*, *N. Z. Fl.* 541.

S. irregularis, *Steph.* (n. sp.)

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

SCHISTOCHEILA.

S. cristata, *Steph.*

Hab.: Summit of Bellenden-Ker, 5,000 ft.

S. Brotheri, *Steph.* (n. sp.)

Hab.: Freshwater Creek, Trinity Bay.

TRICHOCOLEA, Nees.

Stems erect or inclined, tufted, much branched, very soft, white and woolly in appearance. Leaves incubous and distichous, but clothing the stem, deeply palmately divided, the lobes lacinated. Stipules present. Fruit in the forks of branches. Involucral leaves many, connate into a hairy tube, which is adnate with the calyptra, coriaceous; mouth truncate. Perianth none. Capsule oblong, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia in the axils of leaves on the upper side of the stem.—*Hook.*, N. Z. Fl.

T. pluma, Nees.

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

Order CHARACEÆ.

NITELLA, Agardh.

N. Sonderi, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, pp. 8, 24. Only 2 in. high. Terminal segments of the leaves towards the end getting thinner; the mucro 0.035 mm. thick and 0.075-0.1 mm. long. The nucleus of the fruit 0.20-22 mm. long and 0.18-20 mm. wide. The membrane furnished with the common little acuminate warts, or with warts a little broader and thicker on the base as in *N. Gunnii*, L.

Hab.: Gulf of Carpentaria.—*O. Nordst., l.c.*

N. hyalina (*DC.*) *Kütz.*, Otto Nordstedt's De Alg. et Char. 1889, pp. 12, 28. The smaller intermediate leaves partly dichotomous. Verticilles 10 mm. in diameter; nucleus of the fruit 0.31-33 long and 0.3 mm. wide, with 8 pretty sharp edges. Antheridia 0.36 in diameter, Membrane very minutely granulated.

Hab.: Rockhampton, *Watson*; Burketown, Gulf of Carpentaria, 1886, *Dr. Thos. L. Bancroft*; Flinders River, *E. Palmer*.—*Otto Nordst., l.c.*

N. h. var. brachyactis.—*O. Nordst., l.c.*

Hab.: Roper River.—*O. Nordst., l.c., p. 12.*

A. gelatinosa, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, p. 13. Membrane reticulated, meshes circ. 8-16 μ in diameter; sometimes arranged in lines.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft.*

N. pseudoflabellata, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, p. 24. The inner membrane of the nucleus of the fruit very closely and minutely granulated-punctated. Over it there lies another

lamel which is a little spongy, but covered also with small pointed warts standing a little more closely than in *N. Sonderi* and a little smaller too (c. $1\frac{1}{2}$ -3 μ).

Hab.: Endeavour River, W. Persieh.—*Otto Nordst., l.c.*

N. polygloch, *A. Br. f.*, *Otto Nordst. De Alg. et Char* 1889, p. 27. At least some inches high. Stalks to $\frac{3}{4}$ -mm. thick. The sterile leaves 1 in. long, the fertile ones a-half shorter; segments of the first partition c. 4, of the second 3, of the third 2. The undermost cellule of the terminal segment 20-75 μ thick and 75-150 μ long. Nucleus of the fruit 0.25 mm. long and 0.225 mm. wide; membrane delicately fossiforme, reticulated with uneven beams.

Hab.: Endeavour River. *W. Persieh.*—*Otto Nordst., l.c.*

N. tasmanica (*F. v. M.*) *A. Br.*, *Otto Nordst. De Alg. et Char* 1889, p. 29. Much like *N. gelatinosa*, but the terminal segments of the leaves are acuminate.

Hab.: Trinity Bay, *Sayer*; Johnstone River, *Dr. Thos. L. Bancroft.*

CHARA, Linn.

C. gymnopitys, *A. Br.*; **var. æquistriata**, *Otto Nordstedt's De Alg. et Char* 1889, p. 33. Tubules of the cortex of equal width, the secondary ones in the crosscut not much more prominent than the primary ones.

Hab.: Near Brisbane.—*F. M. Bailey.*

C. g. var. æquistriata, **var. polyphylla**, *Otto Nordstedt, l.c., p. 33.*

Hab.: Mount Perry.—*J. Keys.*

C. g. var. tylacantha, *Otto Nordst. De Alg. et Char* 1889, p. 34. Stalk $\frac{1}{2}$ -mm. thick, sparingly covered with very short pointed prickles; prickle 0.125 mm. long. Leaves in a whorl 8-10, each 10-15 mm. long. The secondary cortical tubules of the stalk narrower and less prominent than the primary ones, joined with horizontal or oblique walls; very rarely 2 intermediate tubules. Folioles 0.075-0.125 mm. thick, 2-3 times longer than the sporangia. Nucleus only 0.33-35 mm. long and 0.25 mm. thick.

Hab.: Ithaca Creek, *H. Tryon*; Gulf of Carpentaria, *Dr. Thos. L. Bancroft.*

C. leptosperma, *A. Br.*; **var. (?)**, *Otto Nordstedt's De Alg. et Char* 1889. Stalk $\frac{1}{2}$ -mm. thick. Warts semiglobose or nearly globose, prominent, 0.075-0.1 mm. Stipular cellules as thick, to 0.125 mm. long, often semiglobose, somewhat upwards directed. Of an under line of the stipular wreath nothing can be seen, but sometimes a little but not prominent cell. Leaves 8-9, corticated ones (of equal length) 4-5, of which 3-4 are fertiles; upper uncorticated ones 3-5, the uppermost subacuminate. Folioles only on the corticated joints, subacuminate. On the fertile joints there are 4 folioles, the

2 anterior ones longer than the lateral ones, all shorter than the sporangia, 0·1 mm. thick, the posterior ones undeveloped, or only warts.

Hab. : Mitchell River.—*E. Palmer.*

C. gymnopus, *A. Br.*; **var. ceylonica** (*Klein*) *A. Br.*, Otto Nordst. De Alg. et Char. 1889. Sporangia 1·1-1·2 mm. long, 0·54-0·65 mm. thick. Nucleus 0·65-0·67 mm. long, 0·24 mm. thick.

Hab. : Mitchell River.—*E. Palmer.*

ORDER LICHENES.

Many of the additional species here recorded are from J. F. Shirley's Monograph of Queensland Lichens :—

OBRYZUM, Wallroth.

Thallus foliaceous of many leafy incised lobes, grey or brownish. Apothecia very small, angiocarpous, immersed in thalline warts, with punctated spores. Spores boat-shaped, 2-cellular, 6 to 8 in each ascus. Gonidia moniliform.

O. myriopus, *Rev. F. R. M. Wilson.*

Hab. : On rocks, Hill End, Brisbane.—*J. F. Shirley.*

COLLEMA, Ach.

C. nigrescens, *Huds.*

Hab. : On bark, Cabbage-tree Creek.

LEPTOGIUM, Ach.

L. marginellum, *Sw.*

Hab. : On bark, Sankey's Scrub.

L. byssinum, *Hoffm.*

Hab. : Queensland,—*F. v. M.* in *Fragm.* xi. *Suppl.* 115.

CALICIUM, Ach.

C. curtum, *Borr.*

Hab. : Bundaberg.

SPHEROPHORON, Pers.

S. compressum, **var. candidum**, *J. M.*

Hab. : Bellenden-Ker.

PELTIGERA.

P. polydactyla, **var. conjungens**, *J. M.*

Hab. : Toowoomba.

CLADONIA, Hoffm.

C. fimbriata, **var. tenella**, *J. M.*

Hab. : Main Range.

C. delicata, *Flk.*

Hab. : North Pine River, on decaying logs.

C. squamulosa, *J. M.*

Hab. : Main Range, on old logs.

C. elegantula, *J. M.*Hab. : Queensland, by *Krempelhuber*.

USNEA, Dill.

U. cornuta, *Flot.*

Hab. : Near Brisbane.

U. florida, *Linn.*

Hab. : Main Range.

RAMALINA, Ach.

R. intermedia, *Del.*

Hab. : On bark, Brisbane River.

R. inflata, *Hook. et Tayl.*

Hab. : Toowoomba.

R. i. var. gracilis, *J. M.*

Hab. : Toowoomba.

R. fraxinea, var. **tæinæformis**, *Ach.*

Hab. : Bundaberg, on small branches.

R. farinacea, var. **squarrosa**, *J. M.*

Hab. : Rockhampton.

STICTINA, Nyl.

S. subtomentella, *C. K.*

Hab. : Mount Mistake.

S. cyphellulata, *J. M.*

Hab. : Bellenden-Ker.

S. impressula, *J. M.*

Hab. : Bellenden-Ker.

S. fragillima, var. **linearis**, *J. M.*

Hab. : Bellenden-Ker.

STICTA, Ach.

S. Freycinetii, *Del.*

Hab. : Main Range.

S. physciospora, *Nyl.*

Hab. : Hinchinbrook Island.

S. Karstenii, *J. M.*; var. **linearis**, *J. M.*

Hab. : Bellenden-Ker.

S. aurata, var. **microphylla**, *J. M.*

Hab. : Toowoomba.

RICASOLIA, De Not.

R. patinifera, *J. M.*

Hab.

PARMELIA, Ach.

P. olivacea, *Linn.*

Hab.: Mount Perry and Brisbane River.

P. tiliacea, var. **stenophylla**, *J. M.*

Hab.

P. t. var. **sulphurosa**, *J. M.*

Hab.: On bark, Toowoomba.

P. conspersa, var. **exasperata**, *J. M.*

Hab.: Toowoomba.

P. tenuirima, var. **corallina**, *J. M.*

Hab.: Toowoomba.

P. gracilis, *J. M.*

Hab.: Daintree River.

P. hypoxantha, var. **major**, *J. M.*

Hab.: Mueller River.

P. limbata, var. **endococcinea**, *J. M.*

Hab.: Russell River.

PHYSCIA, Nyl.

P. barbifera, *Nyl.*

Reported by Dr. Stirton from Queensland.

P. obesa, *Per.*; var. **cæsiocrocata**, *Tuck.*

Hab.: Rocks, Brisbane River.

P. adglutinata, *Flk.*

Hab.: Bundaberg.

P. speciosa, var. **angustilobia**, *C. K.*

Hab.: Mount Mistake.

P. glauco-virescens, *Nyl.*

Hab.: Mount Perry and Brisbane River.

P. chrysophthalma, var. **leucoblephara**, *J. M.*

Hab.

P. c. var. **Sieberianus**, *Lemx.*

Hab.: Toowoomba.

PYXINE, Fr.

P. picta, *Tuck.*

Hab.: Brisbane and Bundaberg, on rocks.

PSOROMA, Fries.

P. cæsium, *J. M.*

Hab.: Cunningham's Gap.

PANNARIA.

P. rubiginosa, *Del.*; **var.**

Hab.: Rocks, Brisbane River.

P. fulvescens, *Mont.*

Hab.: Mount Perry.

P. brisbanensis, *C. K.*

Hab.: Hill End, Brisbane.

P. sordida, *C. K.*

Hab.: Tambourine Mountains.

LECANORA, *Nyl.***L. vitellina**, *Ach.*

Hab.: On old fences, Moggill.

L. exigua, *Ach.*

Hab.: Wolston Scrub.

L. thiomela, *Nyl.*

Hab.: Helidon, on rocks.

CALLOPISMA, *Not.*

Thallus uniform, crustaceous, not squamulose or foliaceous, grey or yellow. Apothecia scattered, usually yellow or orange. Spores simple or polari-bilocular.

C. cinnabarinum, *Ach.*

Hab.: On rocks, Helidon, Ipswich, Rosewood.

PERTUSARIA, *DC.***P. leiotera**, *J. M.*

Hab.: Rockhampton.

P. leioplaca, *Ach.*

Hab.: Common.

LECIDEA, *Ach.***L. phæocarpa**, *C. K.*

Hab.: Sankey's Scrub.

L. leioplaca, *J. M.*

Hab.: Rockhampton.

L. reniformis, *J. F. Shir.*

Hab.: On rocks, Helidon.

L. inflexa, *C. K.*

Hab.: Rosewood.

L. brisbanensis, *C. K.*

Hab.: Sankey's Scrub.

L. incompta, **var. spissa**, *J. F. Shir.*

Hab.: Bundaberg.

- L. effusa**, *Sm.*
Hab. : Wolston.
- L. atro-alba**, *Ach.*
Hab. : Reported in *Fragm. Phyt.* vol. xi.
- L. disciformis**, var. **cinereo-ferruginea**, *C. K.*
Hab. : Three-mile Scrub.
- L. clausa**, *C. K.*
Hab. : On rocks, Helidon.
- L. geographica**, var. **cyclopica**, *Nyl.*
Hab. : Mount Perry.
- L. aspidula**, *Krph.*
Hab. : Rockhampton.
- L. russula**, *Ach.*
Hab. : Brisbane.
- L. inflexa**, *C. K.*
Hab. : Rosewood.
- L. subproposita**, *J. M.*
Hab. : Toowoomba.
- L. breviscula**, *Nyl.*
Hab. : Toowoomba.
- L. leucoxantha**, *Mass.*
Hab. : Rosewood, Indooroopilly.
- L. parabola**, var. **subvulpina**, *J. M.*
Hab. : Trinity Bay.
- L. coccocarpia**, *J. M.*
Hab. : Russell River, on *Coccocarpia aurantiaca*.
- L. (Bilimbia) leucoblephara**, *Nyl.*
Hab. : Common, on rocks, bark, and leaves.

OCELLULARIA, J. M.

A sub-genus of *Thelotrema*, having hyaline transversely divided spores, with lenticular loculi.

- O. terebratula**, *Nyl.*
Hab. : Forbes Creek, North Pine River.
- O. viridi-pallens**, *J. M.*
Hab. : Trinity Bay.

PHEOTREMA, J. M.

Spores brown, transversely divided, loculi lenticular.

- P. consimile**, *J. M.*
Hab. : Russell River.

THELOTREMA, Ach.

Spores hyaline, murally divided.

T. laceratulum, *J. M.*

Hab.: Trinity Bay.

T. australiense, *J. M.*

Hab.: Tweed River.

ASCIDIUM.**A. monosporum**, *C. K.*

Hab.: Three-mile Scrub and Helidon.

LEPTOTREMA, *J. M.*

Spores brown, parenchymatous.

L. albo-coronata, *C. K.*

Hab.: Sankey's Scrub.

L. integrum, *J. M.*

Hab.: Russell River.

GRAPHIS, Ach.**G. mucronata**, *Stirton*.

Hab.: On bark, Brisbane River.

G. Argopholis, *C. K.*

Hab.: Tambourine Mountain.

GRAPHINA, *J. M.*

Spores hyaline as in *Graphis*, but with the loculi parenchymatous.

G. saxicola, *J. M.*

Hab.: Thursday Island.

G. subtartarea, *J. M.*

Hab.: Trinity Bay.

G. palmicola, *J. M.*

Hab.: On Palms, Trinity Bay.

HELMINTHOCARPON, *J. M.*

Apothecia scattered, paraphyses intricately convexo-ramose; spores hyaline.

H. Lojkanum, *J. M.*

Hab.: Toowoomba.

ARTHONIA, Ach.**A. Ricasoliæ**, *J. M.*

Hab.: Toowoomba.

A. vulgaris, var. *astroidea*, *C. K.*

Hab.: Hill End, Brisbane, on *Avicennia officinalis*.

A. cinereo-argentea, *C. K.*Hab. : On bark of *Ficus laccifera*, Bot. Garden.

GLYPHIS, Ach.

G. verrucosa, *C. K.*

Hab. : Sankey's Scrub.

G. cyclospora, *J. M.*

Hab. : Trinity Bay.

MELANOTHECA, Fée.

Fruit composite, formed of many perithecia, which are straight in vertical section, each ending in a straight and erect ostium ; spores brown, transversely divided, loculi lenticular.

M. rubescens, *C. K.*

Hab. : Three-mile Scrub.

M. Achariana, *Fée.*

Hab. : Sankey's Scrub.

TOMASELLIA, Mass.

Fruit as in *Melanotheca*, but spores hyaline, transversely divided, loculi not lenticular.

T. dispora, *J. M.*

Hab. : Thursday Island.

PORINA, Ach.

P. bacillifera, *J. M.*

Hab. : Daintree River.

P. præstantior, var. *nana*, *Shirley.*

Hab. : Maroochie.

P. persimilis, *J. M.*

Hab. : Trinity Bay.

P. phæophthalma, *Shirley.*

Hab. : Rosewood.

CLATHROPORINA, J. M.

Differs from *Porina* in having murally divided spores.

C. endochrysa, *Mont.*

Hab. : Three-mile Scrub.

ARTHOPYRENIA, J. M.

A. picea, *J. F. Shirley.*

Hab. : Caboolture.

PYRENULA, Fée.

Fruit simple, formed of a single perithecium, 1-ostiolate; spores brown, transversely divided, loculi lenticular; paraphyses sparingly convexo-ramose.

P. finitima, *J. M.*

Hab.: Toowoomba.

P. segregata, *J. M.*

Hab.: Trinity Bay.

P. immersa, *J. M.*

Hab.: Near Toowoomba.

ANTHRACOTHECIUM, J. M.

Fruit as in *Pyrenula*; but spores brown, parenchymatous; paraphyses capillary and connected.

A. oligosporum, *J. M.*

Hab.: Burdekin River.

Order FUNGI.

SUBORDER HYMENOMYCETES.—TRIBE AGARICINI.

SUBGENUS AMANITA.

AGARICUS, Linn.

A. vernus, *Bull.*, *Fries Hym. Eur.* 18. Spring *Amanita*; poisonous.

Hab.: Oxley Creek.—*C. W. De Vis.*

A. murinus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 1. Mouse-coloured *Amanita*.

Hab.: Eight-mile Plains.—*J. P. Bichard.*

SUBGENUS AMANITOPSIS.

A. farinaceus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 1. Mealy *Amanitopsis*.

Hab.: Oxley Creek, *C. W. De Vis*; and Brisbane.

SUBGENUS LEPIOTA.

A. mastoideus, *Fries*, *Hym. Eur.* 30. The breast-like *Lepiota*.

Hab.: Albert Park.

A. naucinus, *Fries*, *Hym. Eur.* 34. The Nut-tree *Lepiota*.

Hab.: Found on a heavily manured border, Brisbane Botanic Garden.

A. cretaceus, *Bull.* Chalky *Lepiota*.

Hab.: Albert Park.

A. fimetarius, *Cke. et Mass.* (n. sp.), Grev. xviii. 1.

Hab.: Found growing on cow-dung, Cabbage-tree Creek.—*Field Nat. Exc.*

A. ochrophyllus, *Cke. et Mass.* (n. sp.), Grev. xviii. 2. Gouty-stemmed *Lepiota*.

Hab.: Eight-mile Plain, *J. P. Richard*; and a few other localities near Brisbane, about April, 1889.

SUBGENUS SCHULZERIA.

(After Cap. St. Schulzer von Muggenberg, a skilful mycologist.)

A. revocans, *Cke. et Mass.* (n. sp.), Grev. xviii. 2.

Hab.: Museum Garden, Brisbane.

SUBGENUS ARMILLARIA.

A. fulgens, *Cke. et Mass.* (n. sp.), Grev. xviii. 2. Glossy *Armillaria*.

Hab.: Oxley Creek.—*C. W. De Vis*.

SUBGENUS TRICHOLOMA.

A. resplendens, *Fries*, Hym. Eur. 49. Brightly shining *Tricholoma*.

Hab.: Eight-mile Plain.—*J. P. Richard*.

SUBGENUS CLITOCYBE.

A. cerussatus, *Fries*, Hym. Eur. 86. White-lead coloured *Clitocybe*; esculent.

Hab.: Albert Park.

A. subsplendens, *Cke. et Mass.* (n. sp.), Grev. xviii. 2.

Hab.: Near Brisbane.—*Wm. Soutter*.

SUBGENUS COLLYBIA.

A. radicans, *Relh.*, Cantab. p. 529. Rooting *Collybia*.

Hab.: Near Brisbane.—*H. Hurst*.

A. fusipes, *Bull.*, Champ. t. 106. Spindle-stemmed *Collybia*; esculent.

Hab.: Eight-mile Plain.—*J. P. Richard*.

A. tuberosus, *Bull.*, Champ. t. 256. Sometimes springing from a sclerotoid tuber.

Hab.: Found growing on a piece of old fungus at Goodna. In Europe, Dr. Cooke says it is at times met with growing on *Russula*.

SUBGENUS MYCENA.

A. tenerrimus, *Berk.*, Outl. t. 6, f. 6. A small very tender *Mycena*.

Hab.: On fern-stems, Bowen Park.

SUBGENUS LACCARIA.

A. canaliculata, *Cke. et Mass.* (n. sp.), Grev. xviii, 2. Channelled or fluted *Laccaria*.

Hab. : Under *Casuarinas*, Eight-mile Plain.—*J. P. Richard*.

SUBGENUS PLEUROTUS.

A. diversipes, *Berk.*, Fl. Tasm. t. 181, f. 4.

Hab. : Growing at the edge of a grass walk, Bowen Park.

A. sulciceps, *Cke. et Mass.* (n. sp.), Grev. xviii, 3.

Hab. : At the base of paling fence, Brisbane.

SUBGENUS VOLVARIA.

(Furnished with a *volva*, or wrapper.)

Spores regular in shape, oval or pip-shaped, pink or salmon colour; veil universal, forming a perfect volva, distinct from the cuticle of pileus; stem distinct from the hymenophore; gills free, rounded behind, at first white, then pink, soft, liquescent. None known to be edible.

A. parvulus, *Weinm.*, Ross. 238. Small *Volvaria*.

Hab. : Near Cleveland.—*S. W. Cameron*.

SUBGENUS CLITOPILUS.

(Referring to the sloping cap.)

Stem fleshy or fibrous, expanded upwards into the pileus, the margin of which is at first involute. Hymenophore continuous with the stem, gills equally attenuated behind, and somewhat decurrent, not seceding or sinuate. Some edible.

A. cancrinus, *Fries*, Hym. Eur. 199. Crab *Clitopilus*.

Hab. : Brisbane Botanic Garden.

SUBGENUS FLAMMULA.

A. sapineus, var. terrestris, *Cke.* Terrestrial Fir-tree *Flammula*.

Hab. : Eight-mile Plain.—*J. P. Richard*.

A. purpurea-nitens, *Cke. et Mass.* (n. sp.) Clammy bronze *Flammula*.

Hab. : At the stump of a tree, South Peak, Bellenden-Ker.

A. avellanus, *Cke. et Mass.* (n. sp.), Grev. xviii, 3. Nut-brown *Flammula*.

Hab. : A rather common species on sandy land about Brisbane.

SUBGENUS NAUCORIA.

A. escharoides, *Fries*, Hym. Eur. 264. Scabby *Naucoria*.

Hab. : Eight-mile Plain.—*J. P. Richard*.

SUBGENUS TUBARIA.

(From *tuba*, a trumpet.)

Stem subcartilaginous, fistulose. Pileus rather membranaceous, often clad with the floccose universal veil. Gills subdecurrent, broadest behind, triangular.

A. furfuraceus, *Pers.*, Syn. 454. Scurfy *Tubaria*.

Hab.: Brisbane Botanic Garden.

SUBGENUS HYPHOLOMA.

(Referring to the web-like fringe.)

Hymenophore continuous with the stem; veil interwoven in a web, adhering in fragments to the margin of the pileus. Gills adnate or sinuate. Spores brownish-purple, sometimes intense purple, almost black.

Found generally on stumps. Often gregarious and not edible.

A. adustus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 3. When old the plant appears scorched.

Hab.: At the bottom of a wall, Dr. Bancroft's garden, Brisbane.

Dr. Cooke says it is allied to *A. lacrymabundus*.

SUBGENUS PSATHYRA.

(Plants friable, apt to fall to pieces.)

Veil none, or only universal, floccose-fibrillose. Stem rather cartilaginous, fistulose, polished, fragile. Pileus conical or campanulate, membranaceous. Margin at first straight, adpressed to the stem. Gills purplish or brownish, slender, fragile, hygrophanous.

A. fatuus, *Fries*, *Hym. Eur.* 308. Tasteless *Psathyra*.

Hab.: Near Brisbane.—*H. Hurst*.

A. gossypinus, *Fries*, *Hym. Eur.* 309. Cottony *Psathyra*.

Hab.: Oxley Creek, Brisbane River.—*D. O'Connor*.

SUBGENUS PANÆOLUS.

(All variegated: from the gills.)

Veil, when present, interwoven, sometimes wanting; stem polished, rather firm; pileus somewhat fleshy, viscid when moist, shining when dry, never striated, the margin exceeding the variegated gills; gills clouded, never becoming purple or brown; spores black, oval, smooth.

Almost all found on dung.

A. fimicola, *Fries*, *Hym. Eur.* 312.

Hab.: Goodna Creek, on wallaby-dung.—*Field Nat. Exc.*

A. eburneus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 4. Ivory *Panæolus*.

Hab.: Very frequently met with on cow-dung about Brisbane.

A. veluticeps, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 4. Velvety-capped *Panæolus*.

Hab.: Amongst grass in a back yard in Brisbane.

COPRINUS, Fries.

C. picaceus, *Fries*, *Hym. Eur.* 323. Magpie *Coprinus*; pied or variegated.

Hab.: Near Brisbane.—*H. Hurst.*

C. deliquescens, *Bull.*, *Camp.* t. 558, f. 1. Becoming moist, deliquescent.

Hab.: Near Brisbane.—*H. Hurst.*

C. plicatilis, *Curt.*, *Fl. Lond.* t. 200. Folded pileus.

Hab.: Brisbane, common on garden and grass land.

BOLBITIUS, Fries.

(From the Greek *bolbitios* or *bolitos*, cow-dung.)

Hymenophore almost separate, universal veil none, partial veil in many cases obsolete; gills membranaceous, soft, dissolving, powdery with the rusty ovate spores. The species of this genus are usually met with on dung or rank earth.

B. fragilis, *Fries*, *Hym. Eur.* 334. Brittle *Bolbitius*.

Hab.: In a yard at the back of a house in Brisbane.

PAXILLUS, Fries.

P. Muelleri, *Berk.*, *Linn. Journ.* xiii. 159.

Hab.: Oxley Creek, *C. W. De Vis*; and in a garden on Wickham terrace, Brisbane.

P. (Tapinia) paradoxus, *Kalch.*, *Fung. Hung.* t. 16, f. 1.

Hab.: Eight-mile Plain.—*J. P. Richard.*

RUSSULA, Pers.

R. australiensis, *Cke. et Mass.* (n. sp.)

Hab.: Oxley Creek.—*C. W. De Vis.*

CANTHARELLUS, Adans.

C. (Mesopus) aureolus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 4.

Golden *Cantharellus*.

Hab.: Goodna Creek.—*Field Nat. Exc.*

MARASMIUS, Fries.

M. urens, *Fries*, *Epicr.* 373. Stinging *Marasmius*; the taste stinging, acrid.

Hab.: Cleveland.—*S. W. Cameron.*

M. erythropus, *Fries*, *Epicr.* 378. Pallid *Marasmius*.

Hab.: Amongst grass in a back yard in Brisbane.

M. erythrocephalus. Red-headed *Marasmius*.

Hab. : On decayed leaves and rubbish, Brisbane scrubs ; also Bundaberg.

M. caulicinalis, *Fries*, *Epicr.* 383. Mealy-stemmed *Marasmius*.

Hab. : On bark and leaves, Brisbane River scrubs.

M. lanaripes, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 4. Woolly-stemmed *Marasmius*.

Hab. : Brisbane River scrubs.—*W. Soutter*.

LENTINUS, *Fries*.

L. fusco-purpureus, *Kalch.*, *Grev.* viii. t. 143, f. 17. Brownish-purple *Lentinus*.

Hab. : Near Brisbane.

L. gracilentus, *Cke. et Mass.* (n. sp.) Slender *Lentinus*.

Hab. : Goodna Creek.—*Field Nat. Exc.*

LENZITES, *Fries*.

L. nivea, *Cooke.* A snow-white.

Hab. : Bellenden-Ker, Johnstone River, and other parts of Tropical Queensland.

TRIBE POLYPOREI.

BOLETUS, *Dill.*

B. luteus, *Linn.* in *Cooke's Brit. Fung.* Brown-yellow *Boletus*.

Hab. : Brisbane River.

B. elegans, *Schum.* in *Cooke's Brit. Fung.* Elegant *Boletus*.

Hab. : Oxley Creek.—*C. W. De Vis*.

B. granulatus, *Linn.* in *Cooke's Brit. Fung.* Granulated *Boletus*.

Hab. : Eight-mile Plain.—*J. P. Richard*.

Considered esculent in Europe.

A very variable species, but the very glutinous pileus always the same colour, namely, a rich chestnut-brown ; tubes and stem sulphur colour, tubes exuding a thin gummy juice, which soon dries in the form of sugary granules. Stem rough, scabrous, as if covered with moist sugar.—*W. G. Smith* in *Cooke's Handb. of Brit. Fung.* 251.

B. badius, *Fries*, *Epicr.* 411. Bay *Boletus*.

Hab. : Brisbane and neighbourhood.

B. sanguineus, *With.* in *Cooke's Brit. Fung.* Blood-red *Boletus*.

Hab. : Near Brisbane.

B. chrysenteron, *Fries*, *Epicr.* 415. Red-cracked *Boletus*.

Hab. : Near Brisbane.—*J. F. Bailey*.

B. æstivalis, *Fries*, *Epicr.* 422. Early *Boletus*.

Hab. : Near Brisbane.—*George Mackay*.

A very large species considered esculent in Europe.

- B. luridus**, *Fries*, *Epicr.* 418. Lurid *Boletus*.
Hab. : Eight-mile Plain.—*J. P. Bichard*.
Considered poisonous in Europe.
- B. felleus**, *Bull.* in *Cooke's Brit. Fung.* Bitter *Boletus*.
Hab. : Eight-mile Plain.—*J. P. Bichard*.
- B. æneus**, *Fries*. Brazen *Boletus*.
Hab. : Near Brisbane.—*J. F. Bailey*.
- B. subsimilis**, *Preiss.*, *Fries Pl. Preiss.* 134.
Hab. : Stony ridges about Brisbane.
- B. (Hyporhodii) lacunosus**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. Channel-stemmed *Boletus*.
Hab. : Eight-mile Plain.—*J. P. Bichard* ; Oxley Creek, *C. W. De Vis*.

STROBILOMYCES, Berk.

- S. pallescens**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. Pale-coloured Cone-fungus.
Hab. : Near Brisbane.—*George Mackay*.
- S. floccopus**, *Rostk.* Floccose or woolly Cone-fungus.
Hab. : Eight-mile Plain.—*J. P. Bichard*.
- S. velutipes**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. Velvety-stemmed Cone-fungus.
Hab. : On wood under *Casuarina* trees, Eight-mile Plain.—*J. P. Bichard*.
- S. rufescens**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. Reddish-coloured Cone-fungus.
Hab. : Oxley Creek.—*C. W. De Vis*.

POLYPORUS, Fries.

- P. (Ovina) tumulosus**, *Cooke* (n. sp.), *Grev.* xvii. 55.
Hab. : Burpengary, *Dr. J. Bancroft* ; and several localities near Brisbane.
According to *Dr. Bancroft*, at Burpengary this species is used for food by the natives. This is one of the species of fungi which form the large masses of mycelium frequently met with when breaking up forest land in the Brisbane district.
- P. (Spongiosa) biennis**, *Bull.*, *Fries Hym. Eur.* 529.
Hab. : Goodna Creek.—*Field Nat. Exc.*
- P. tubulæformis**, *Berk.*
Hab. : Eight-mile Plain.—*J. P. Bichard*.
- P. (Lignescens) plebeius**, *Berk.*, *Fl. N. Zeal.* ii. 179. A resupinate form.
Hab. : Off fence, Botanic Garden.

FOMES, Fries.

- F. (Mesopodes) pullatus**, *Berk.* in *Herb.* 2340, *Grev.* xiii. 117.
Hab. : Rather plentiful, and the specimens large during 1889 about Brisbane ; often at the stumps of trees.—*Field Nat. Exc.*

F. (Lævigati) annosus, *Fries*, Hym. Eur. 564. A resupinate form.

Hab. : Top of South Peak, Bellenden-Ker, forming large patches on old logs.

F. omalopilus, *Mont.* Cub. 423 = CARNEO-FULVUS, *Berk.*

Hab. : Bellenden-Ker.

POLYSTICTUS, *Fries.*

P. (Discipedes) rasipes, *Berk.*, Linn. Journ. xvi. 46.

Hab. : Reported from Queensland by Dr. Cooke.

P. (Discipedes) porphyrites, *Berk.*, Hook. Journ. 1865, 196.

Hab. : Reported from Queensland by Dr. Cooke.

P. (Stuposi) pergamenus, *Fries*, Epicr. 480.

Hab. : Bunya Mountains.

P. (Prolificantes) laceratus, *Berk.*, Ann. Nat. Hist. 1839, 392.

Hab. : Goodna Creek.

P. (Coriacei) vernicifluus, *Berk.*, Fl. Tasm. ii. 254.

Hab. : On wet log in Goodna Creek Scrub.—*Field Nat. Exc.*

P. (Coriacei) obstinatus, *Cke.*, Grev. xii. 17. (*Trametes obstinatus*, *Cke.*)

Hab. : Endeavour River.

SOLENTIA, *Pers.*

Cups tubular, cylindrical; mouth narrowed, inferior, or turned downwards.—*Cooke*, British Fungi i. 329.

S. candida, *Hoffm.*, Dent. Fl. t. 8, f. 1. White *Solenia*.

Hab. : At the bottom of palings of a fence in Brisbane; in Europe it is often found on rotten Beech.

TRIBE HYDNEI.

HYDNUM, *Fries.*

H. lævigatum, *Fries*, Hym. Eur. 599. Smooth *Hydnum*.

Hab. : Eight-mile Plain.—*J. P. Richard.*

H. mucidum, *Fries.* Hoary *Hydnum*.

Hab. : Harvey's Creek.

IRPEX, *Fries.*

I. cervinus, *Berk.* Tawny *Irpeex*.

Hab. : Mulgrave River.

GRANDINIA, *Fries.*

G. glauca, *Cooke* (n. sp.), Grev. xvii. 55.

Hab. : On dead wood, Enoggera Gap.—*Field Nat. Exc.*

TRIBE THELEPHOREI.

PENIOPHORA, Cooke.

P. papyrina (*Mont.*), *Cke.* in *Grev.* viii. 20.

Hab.: Reported from Queensland by Dr. Cooke in letter.

CORTICIUM, Fries.

C. reticulatum, *B. et Br.*, Ceylon Fungi.

Hab.: On wood, Tringilburra Creek.

LACHNOCLADIUM, Lév.

Coriaceous, subcoriaceous, or subcartilaginous, branching fungus; tomentose or setulose, the branches compressed or terete.—*Sacc.*, *Syll.* Fung. vi. 738.

L. rameale, *Berk.*

Hab.: Brisbane scrubs, *Field Nat. Exc.*; Mulgrave River.

L. semivestitum, *Berk.*

Hab.: Goodna Creek.—*Field Nat. Exc.*

ALEURODISCUS.

A. albidus, *Mass.* (n. sp.), *Grev.* xvii. 55. Pure white *Aleurodiscus*.

Hab.: On dead twigs, Wolston Scrub, Brisbane River.—*Field Nat. Exc.*

TRIBE TREMELLINI.

TREMELLA, Fries.

T. fuciformis, *Berk.*

Hab.: On logs in damp localities, Brisbane scrubs.—*Field Nat. Exc.*

SUBORDER GASTEROMYCETES.

TRIBE PHALLOIDEI.

LYSURUS, Fries.

(From the Greek *lyo*, loose, and *oura*, tail, alluding to the free segments of the head.)

Receptacle stipitate, divided upwards in vertical lobes, which are free at the apex, scarcely distinct from the stipes. Sporiferous pulp covering the external part of the lobes.—*Sacc.*, *Syll.* Fung. vii. 22.

L. australiensis, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 6.

Hab.: Oxley Creek, *Dr. O'Connor*; Cleveland, *S. W. Cameron*.

MUTINUS, Fries.

(Pointless *Phallus*.)

Receptacle stipitiform without a pileus, directly covered on the upper side with a sporiferous pulp, the under side without spores. The

sporiferous part as large as the stipes, or more solid or more dilated.—*Sacc.*, *Syll. Fung.* vii. 12.

M. sulcatus, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 69.

Hab.: On garden soil near Brisbane.—*G. Hardy.*

ITHYPHALLUS, Fries.

(From the Greek: straight phallus.)

Receptaculum consisting of a hollow stalk and pileus, which is reticulate or tuberculate-rugose. Stipes without an indusium.—*Sacc.*, *Syll. Fung.* vii. 8.

I. impudicus, *Fries.* The common European "Stinkhorn."

Hab.: Tringilburra Creek.

I. novæ-hollandiæ (*Corda*), *Ed. Fischer.* (*Phallus libidinosus*, *Cayley*, and *Cynophallus Caleyi*, *Berk.*)

Hab.: Enoggera Creek, on a stony ridge.—*Field Nat. Exc.*

CLATHRUS, Mich.

C. (Laternea) triscapus (*Turpin*), *Fries*, *Syst. Myc.* ii. 287. (*Laternea triscapa*, *Turp.*)

Hab.: On débris, Goodna Creek.—*Field Nat. Exc.*

TRIBE LYCOPERDACEI.

LYCOPERDON, Tournef.

L. substellatum, *Berk.*

Hab.: On dung, Kedron Brook.—*Field Nat. Exc.*

SCLERODERMA, Fries.

S. australe, *Mass.* (n. sp.), *Grev.* xviii. 26.

Hab.: Endeavour River, on soil.—*Persietz.*

TRIBE NIDULARIACEI.

CYATHUS, Hall.

C. ambiguus, *Tul.*

Hab.: On garden soil, Wickham terrace.—*Dr. P. Bancroft.*

SUBORDER MYXOMYCETES.—TRIBE CALCAREÆ.

FULIGO, Hall.

(Plant when old appearing like a mass of soot.)

Of various-coloured shapeless masses, approaching *Æthelium* in its tender venous peridia. The central tunica containing the capillitium and spores; the external tunica not always forming a skin provided with calcareous granules, but on the under side joined to the pellicula of the hypothallus. Capillitium much developed,

provided with not very numerous granules, which are calcareous and irregularly rugulose. Spores globose.—*Sacc.*, Syll. Fung. vii. 353.

F. varians, *Sow.*

Hab.: At times very abundant in Brisbane in places where rubbish has been buried.

TILMADOCHÉ, *Fries.*

Peridia stipitate, bursting irregularly or in a reticulate manner, membrane simple, very tender, calcareous. The tubes of the capillitium broad at the base, simple, the upper ones in a sharp angle, repeatedly furcate, the last lateral branches of the upper peridium scarcely adnate, regularly reticulate, only sometimes with foetid calcareous granules. Calcareous granules small, fusoid, not at all numerous. No columella.—*Sacc.*, Syll. Fung. viii. 359.

T. rufipes, *Berk.*

Hab.: On moss, *Pimpama*.—*Field Nat. Exc.*

DIDYMIUM, *Schrad.*

D. australe, *Mass.* (n. sp.), *Grev.* xvii. 7.

Hab.: On old *Auricularia*, Brisbane scrubs.—*Field Nat. Exc.*

D. complanatum, *Fries.*

Hab.: Brisbane, on garden weeds.

SUBORDER ÆCIDIOMYCETES.

UROMYCES, *Lév.*

U. Diploglottidis, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 55.

Hab.: On leaflets of Native Tamarind.—*Field Nat. Exc.*

U. phyllodiæ, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 70.

Hab.: On leaves (phyllodia) of Wattles, Brisbane district.—*Field Nat. Exc.*

TRIBE USTILAGINEI.

CEREBELLA, *Cesati.*

C. andropogonis, *Les.*

Hab.: On awns of *Heteropogon contortus*, Gladstone.—*C. T. Musson.*

C. paspali, var., *Cke. et Mass.* (n. form.)

Hab.: On *Anthistiria ciliata*, Gladstone.—*C. T. Musson.*

SUBORDER DISCOMYCETES.—TRIBE HELVELLACEI.

PEZIZA, *Dill.*

P. (Trichoscypha) Hindsii, *Berk.* in *Hook. Journ.* i. 456.

Hab.: Near Cairns.

P. (Sarcoscypha) melastoma, *Sow.*

Hab.: Goodna Creek Scrub.—*Field Nat. Exc.*

P. (Dasyscypha) lachnoderma, Berk.

Hab.: Mount Mistake.

P. (Cochleatæ) cochleata, Bull.Hab.: Brisbane.—*G. Watkins*.

CHLOROSPENIUM, Tul.

C. æruginosum, Tul.

Cooke, Brit. Fung. 709, says, "is the green mycelioid state of *Helotium æruginosum*, Fries. It is this mycelium which stains the wood known as 'green oak,' and used in the manufacture of 'Tunbridge ware.'"

SUBORDRE PYRENOAMYCETES.—TRIBE HYPOCREACEÆ.

SPHEROSTILBE, Tul.

S. hypocreoides, K. et C.Hab.: On bark, Brisbane scrubs.—*Field Nat. Exc.*

TRIBE XYLARIACEÆ.

XYLARIA, Schr.

X. fistulosa (*Lév.*), *Fries*, Nov. Symb.Hab.: Mulgrave River; also met with in Java, *Saccardo*.**X. dealbata**, Berk.

Hab.: Bellenden-Ker.

HYPOXYLON, Fries.

H. punctulatum, B. et R.Hab.: On wood, Wolston scrub, Brisbane River.—*Field Nat. Exc.***H. (Placoxylon) ellipticum**, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 70.Hab.: On wood, Burpengary.—*Dr. J. Bancroft*.**H. marginatum**, Berk.Hab.: On wood, Brisbane scrubs.—*Field Nat. Exc.*

STRUMELLA, Sacc.

(From *struma*, a wen.)

Sporodochium verruciform, composed of variously branched hyphæ and of ovoid polymorphous conidia variously connected.—*Sacc.*, *Syll. Fung.* iv. 742.

S. hysterioides, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 69.Hab.: Gladstone, on wood.—*C. T. Musson*.

TRIBE DOTHIDEI.

PHYLLOCHORA, Nits.

P. aspidea, B. et M.Hab.: On *Alpinia carulea*, Wolston Scrub, Brisbane River.—*Field Nat. Exc.*

P. catervaria, *Berk.* (So named from the confused masses it forms on the leaves.)

Hab. : On several rough-leaved Figs at the Mulgrave River.

This species infests the foliage of *Ficus oppositifolia* in Ceylon.

AILOGRAPHUM, Lib.

Perithecia minute, linear, or elliptico-linear, simple or branched, opening with a narrow longitudinal fissure; asci sacciform, ovoid-oblong.—*Cooke*, *Brit. Fung.* 765.

A. melioides, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 6.

Hab. : On trees, Pimpama.

TRIBE VALSIÆI.

VALSA, Fries.

V. decorticans, *Fries.*

Hab. : Brisbane River, on dead wood.—*Field Nat. Exc.*

SARCOXYLON, Cooke.

Stroma rather fleshy, pallid or brightly coloured, subglobose, pulvinate or depressed; perithecia submembranaceous; sporidia simple, coloured.—*Cooke*, *Grev.* xii. 50.

S. punctum, *Jungh.* The upper part of the plant covered with black shining dots.

Hab. : Bellenden-Ker Range.

TRIBE SPHÆRIÆI.

CAPNODIUM, Mont.

C. australe, *M.*

Hab. : On *Cycas*, Brisbane Botanic Garden.

CAPNODIASTRUM.

C. orbiculatum, *Cke. et Mass.* (n. sp.)

Hab. : On leaves of native plants, Tringilburra Creek.

TRIBE PERISPORIÆÆ.

MELIOLA, Fries.

M. polytricha, *Kalch. et Cooke.*

Hab. : On leaves of *Callistemon*, Gladstone.—*C. T. Musson.*

ASTERINA, Lév.

A. epixera, *Berk. et Br.*

Hab. : On foliage of shrubs in Brisbane River scrubs.

A. platystoma, *Cke. et Mass.*, *Grev.* xviii. 6.

Hab. : On leaflets of *Castanospermum*, Brisbane River.—*Field Nat. Exc.*

ROSELLINA, De Not.

(After Dr. F. P. Rosellini.)

Perithecia superficial, smooth ; sporidia continuous, brown.

R. tremellæcola, Cke. et Mass. (n. sp.), Grev. xviii. 6.Hab. : On *Tremella fuciformis*, Brisbane River.—*Field Nat. Exc.*

TRIBE SPHÆRONEMEI.

PHOMA, Fries.

P. graminis, Vitt.Hab. : On grass from Ayrshire Downs. In Belgium it infests the *Poas*.**P. cordylines**, Thum.Hab. : On leaves of *Crinum pedunculatum* growing in Wickham Terrace Reserve.**P. nothum**, Berk., Sacc. Syl. 556.Hab. : On twigs of shrubs, Brisbane River scrubs ; found on *Platanus* in England.**P. Diploglottidis**, Cke. et Mass. (n. sp.), Grev. xvii. 56.Hab. : On leaflets of Native Tamarind tree, Wolston Scrub, Brisbane River.—*Field Nat. Exc.***P. plagia**, Cke. et Mass. (n. sp.), Grev. xvii. 55.

Hab. : On leaves of Palm from Daintree River.

SEPTORIA, Fries.

Perithecia commonly seated on discoloured spots, membranaceous. Sporules rod-like or filiform, many-septate or many-nucleate, hyaline.

S. oleanderina, Sacc.

Hab. : On leaves of Oleanders in garden, Gregory terrace, Brisbane.

This fungus is said to infest plants of the same genus in France, Italy, and other parts of Europe.

GLEOSPORIUM, Mont.

G. lagenarium, Pass.

Hab. : On Mango-fruit, Brisbane Gardens ; in Europe on Cucumbers and Melons.

ASTEROMA, DC.

Perithecia minute, seated usually on radiating black fibrils. Sporules ovoid-oblong.

A. Rosæ, Lib., Sacc. Syl. 2257.

Hab. : On Rose-bushes in Brisbane Botanic Garden.

SUBORDER HYPHOMYCETES.—TRIBE STILBACEI.

FUSICOLLA, Bon.

Sporodochia pulvinate-lobate or effuse, unequal, superficial, subgelatinous, pleasing coloured. Sporophora filiform, branches

continuous. Conidia growing on the points of the branchlets, cylindrical or fusoid-falcate, continuous hyaline.—*Sacc.*, Syll. Fung. iv. 664.

F. incarnata, *Cke. et Mass.* (n. sp.), *Grev.* xvii. 8.

Hab.: On foliage of shrubs, Brisbane River.—*Field Nat. Exc.*

TRIBE DEMATIEL.

CLADOSPORIUM, Link.

C. hypophyllum, *Fcht.*

Hab.: On a *Serjania* in Brisbane Botanic Garden. In Europe this fungus is said to affect the under side of the leaves of the common Elm (*Ulmus campestris*).

MACROSPORIUM, Fries.

Flocci obscure or delicate. Spores erect, basal, pedicellate, with at length transverse and vertical septa.—*Cooke* in *Brit. Fung.*

M. peponicolum, *Rabh.*

Hab.: On Pawpaw fruit received from Mackay. In several parts of Europe this fungus attacks plants of the Pumpkin family.

MYRIOCEPHALUM, Not.

M. Castanospermi, *Cke. et Mass.* (n. sp.)

Hab.: On leaflets of *Castanospermum*, Brisbane River.—*Field Nat. Exc.*

TRICHODERMA, Pers.

Peridium spurious, undeterminate. Flocci even, spores spread over the disc.—*Cooke*, *Brit. Fung.* 625.*

* Description omitted in Second Suppl. Syn. Queensl. Flora, p. 144.

ADDENDA.

KLEINHOVIA, Linn.

(After M. Kleinhoff, at one time director of Java Botanic Garden.)

Bracteoles small, ensiform. Sepals 5, deciduous. Petals 5, unequal, upper with longer claws, margins involute. Staminal column dilated above into a bell-shaped 5-fid cup, divisions each with 3 extrorse 2-celled anthers, cells divergent. Ovary inserted in the staminal cup, 5-lobed, 5-celled; style slender, stigma 5-fid. Capsule membranous, inflated, pyriform, loculicidally 5-valved. Seeds 1 or 2 in each cell, tubercled; albumen scanty or none; cotyledons convolute; radicle next the hilum. A tree with palminerved, ovate, acuminate, quite entire leaves, and loose cymose inflorescence.

K. Hospita, Linn. A tree with straight trunk, smooth bark, and spreading head. Leaves on petioles of about 1 in. long, cordate, ovate, subacuminate, entire, palmately 3 to 5-ribbed, smooth on both surfaces, 6 to 12 in. long by 2 to 3 in. broad. Stipules ensiform. Flowers purplish or rose-coloured. Petals 5, shorter than the lanceolate sepals. Seeds tubercled.

Hab.: Baron von Mueller writes me word that this widely distributed tree has been met with near Port Douglas.

CALOTIS, R. Br.

SECTION ACANTHARIA.

C. porphyroglossa, *F. v. M.*, Fl. Austr. iii. 505. (The name referring to the purple rays of flower.) A hispid annual, with erect or ascending stems of about 4 to 5 in. Leaves cuneate or the lower ones petiolate and spathulate, deeply toothed or almost lobed, the upper ones small and narrow. Involucres 2 to 2½ lines diameter, the bracts narrow and acute. Ray-florets purple, numerous, very narrow. Fruiting-heads about 4 lines diameter. Achenes shortly hirsute, bordered by rather broad wings, densely ciliate on the edge, but without the long plumose hairs of *C. plumulifera*. Pappus of numerous barbed awns, unequal but all shorter than the achene.—Fl. Austr., l.c.

Hab.: Mandangi, Georgina River.—*E. J. Whelan*.

LETTSONIA, Roxb.

(After John Coakley Lettson, M.D., F.S.A.)

Sepals orbicular, elliptic, or oblong, in fruit often somewhat thickened or enlarged. Corolla tubular-funnel-shaped; limb plicate, lobes usually shallow. Stamens included or exerted; anthers oblong or linear, never twisting. Ovary 2-celled, 4-ovuled; disk annular, usually prominent; style filiform; stigmas 2, subsessile, globose. Fruit

indehiscent. Seeds 4 or 1. Scandent more or less hairy shrubs. Leaves alternate, undivided, base often rounded or cordate. Cymes axillary, peduncled, densely corymbose or capitate, bracteate.—*C. B. Clarke* in Hook. Fl. Brit. Ind. iv. 191.

L. Soutteri (n. sp.) (After Wm. Soutter, the energetic secretary and manager of the Queensland Acclimatisation Society.) A climbing plant with white silvery terete or nearly terete stems. Leaves from oblong-lanceolate and $2\frac{1}{2}$ in. long, to ovate-cordate and exceeding 6 in. in length, and more or less acuminate, upper surface glabrous and green, under surface silvery white, the primary veins prominent on both sides, 7 to 9 pairs, petioles 1 to $2\frac{1}{2}$ in. long, grooved. Peduncles about as long as the petioles, bearing a head of few white-coloured flowers; bracts ovate, densely clothed with long silky hairs. Sepals about $\frac{1}{4}$ -in. long, ovate, glabrous on the inner surface, silky on the outer. Corolla about 1 in. long, the diameter of expanded flower rather above 1 in., lobed more than half-way down, lobes silky-hairy except the infolded margins. Stamens much shorter than the lobes of the corolla, hairy at the base. Disk prominent. (Near *L. aggregata*, Roxb.)

Hab.: Johnstone River.

This plant was received by Mr. Wm. Soutter, the manager of the Queensland Acclimatisation Society, about three years ago, attached to the stem of a fern-tree from the Johnstone. The plant is growing at Bowen Park, and the above description has been drawn up from the first flower it has put forth. I have placed it in the above genus from the ovary examined appearing rather 2 than 4-celled. The plant, however, in some respects approaches *Argyrea splendens*, Sweet, and *A. acuta*, Lour.; thus, when more flowers and ripe fruit are obtained, it may have to be placed in *Argyrea*.

GREVILLEA, R. Br.

SECTION CALOTHYRSUS.

G. heliosperma, *R. Br.* in Trans. Linn. Soc. x. 176; Fl. Austr. v. 457; Fragm. vi. 210. A tree of about 20 ft. with dense head of foliage, the young shoots minutely silvery or fulvous-pubescent, the adult foliage glabrous and more or less glaucous. Leaves once or twice pinnate, the segments not very numerous, oblong-lanceolate, obtuse, flat, 3 to 5 in. long, tapering at the base and often petiolulate, triplinerved or penniveined with few almost longitudinal primary veins and numerous almost longitudinal reticulations conspicuous on both sides, the whole leaf 6 to 12 in. long. Racemes very loose, secund, 2 to 4 in. long, terminal, or lateral, often branched but shorter than the leaves. Perianth deep-red or scarlet, glabrous outside as well as the whole inflorescence, bearded inside below the middle, the tube fully 4 lines long, dilated towards the base, somewhat contracted upwards and much revolute under the obliquely globular limb. Torus very oblique and narrow, 3 lines long. Gland adnate, scarcely prominent. Ovary glabrous, stipitate at the upper end of the torus; style longish, red, green near the apex; stigmatic disk very oblique or lateral, very convex. Fruit nearly globular, oblique, 1 in. diameter, with very thick hard valves. Seeds broadly winged all round.—*Benth.*, Fl. Austr., l.c.

Hab.: Westmoreland, Burketown.—*J. B. Macintosh*.

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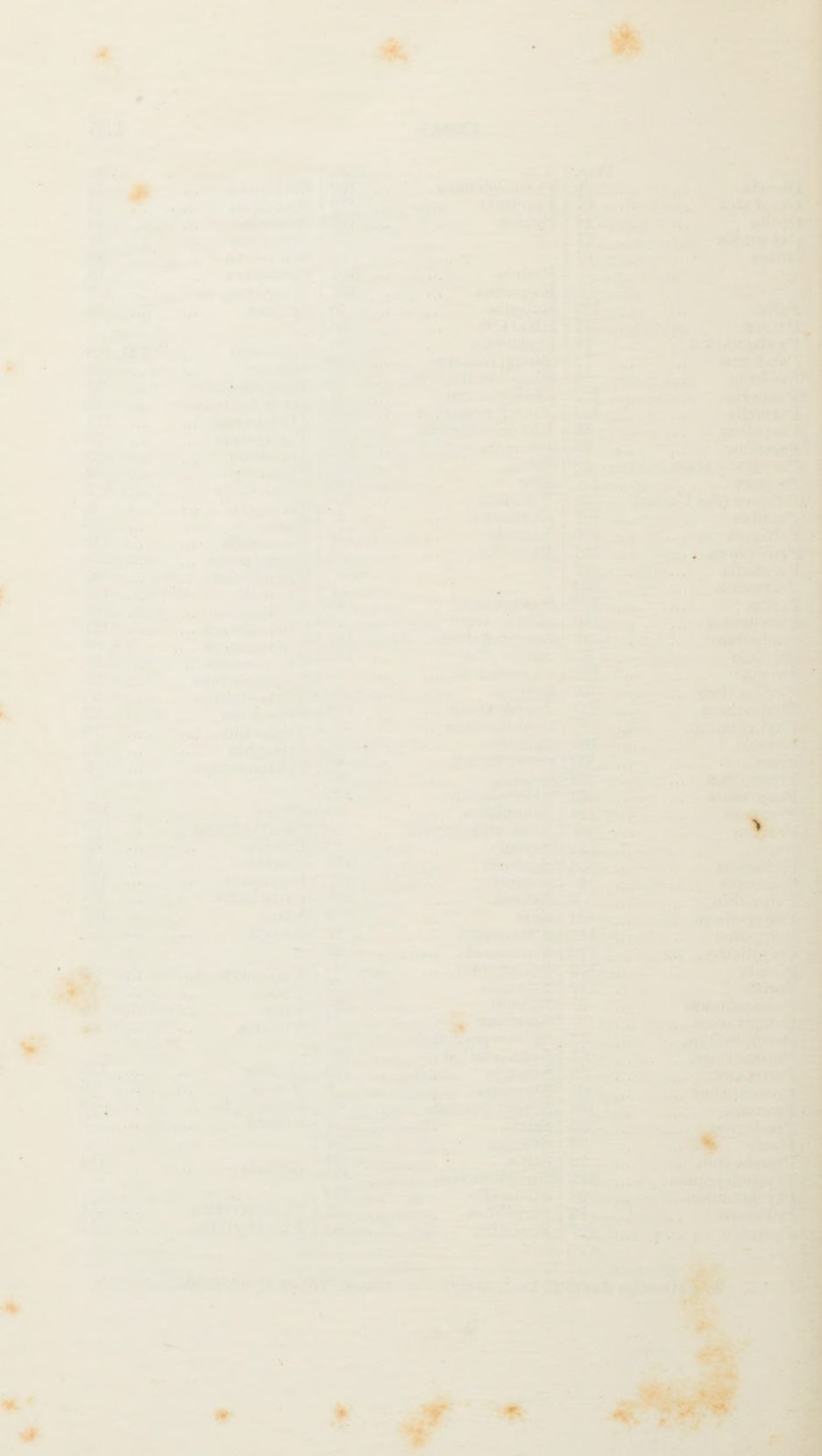
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*Trichomanes
yandinense*



Selaginella

Preissiana



Lycopodium
cernuum



Lycopodium

laterale





*Trichomanes
arnardianum*



*Trichomanes
peltatum*



*Trichomanes
yandinense*



*Selaginella
Preissiana*





Trichomanes javanicum



*Trichomanes
parviflorum*





Davallia tripinnata



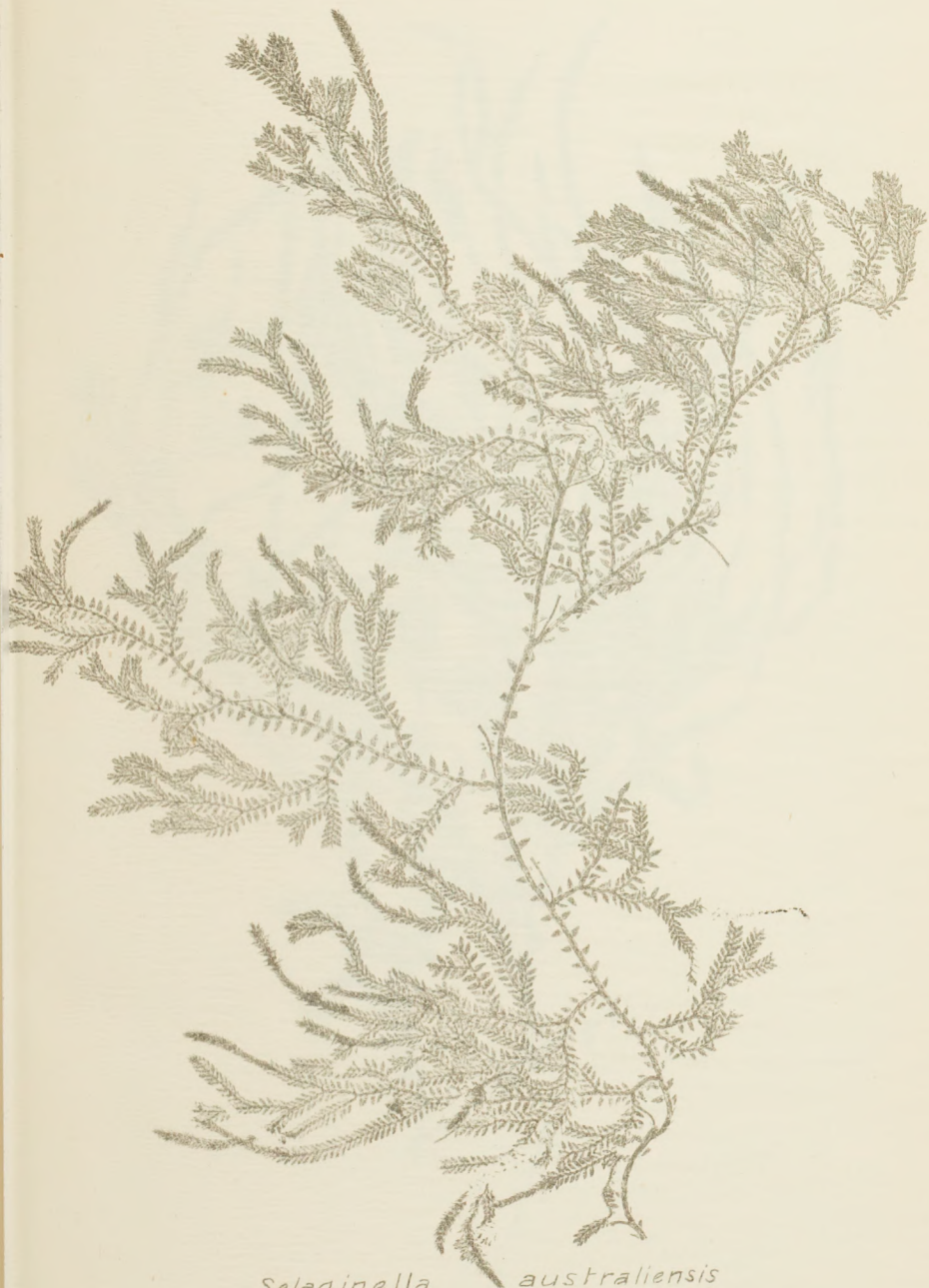


Polypodium simplicissimum



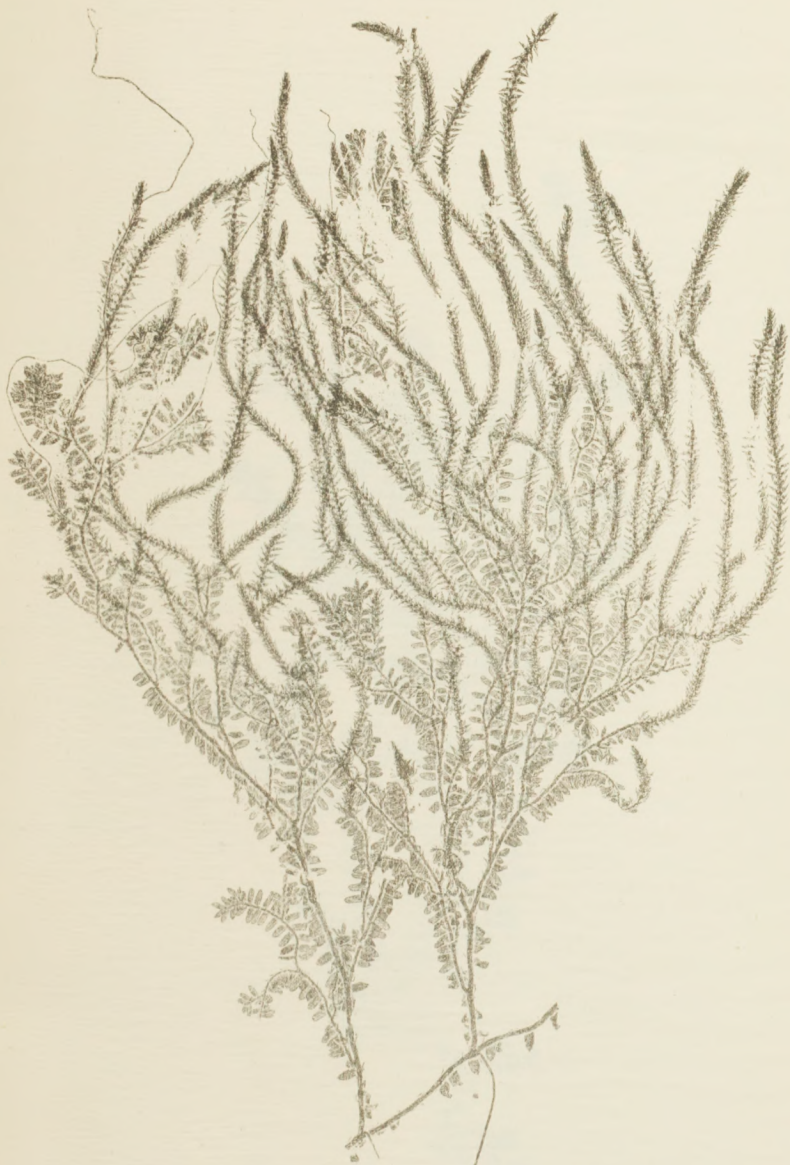
Trichomanes johnstoneense





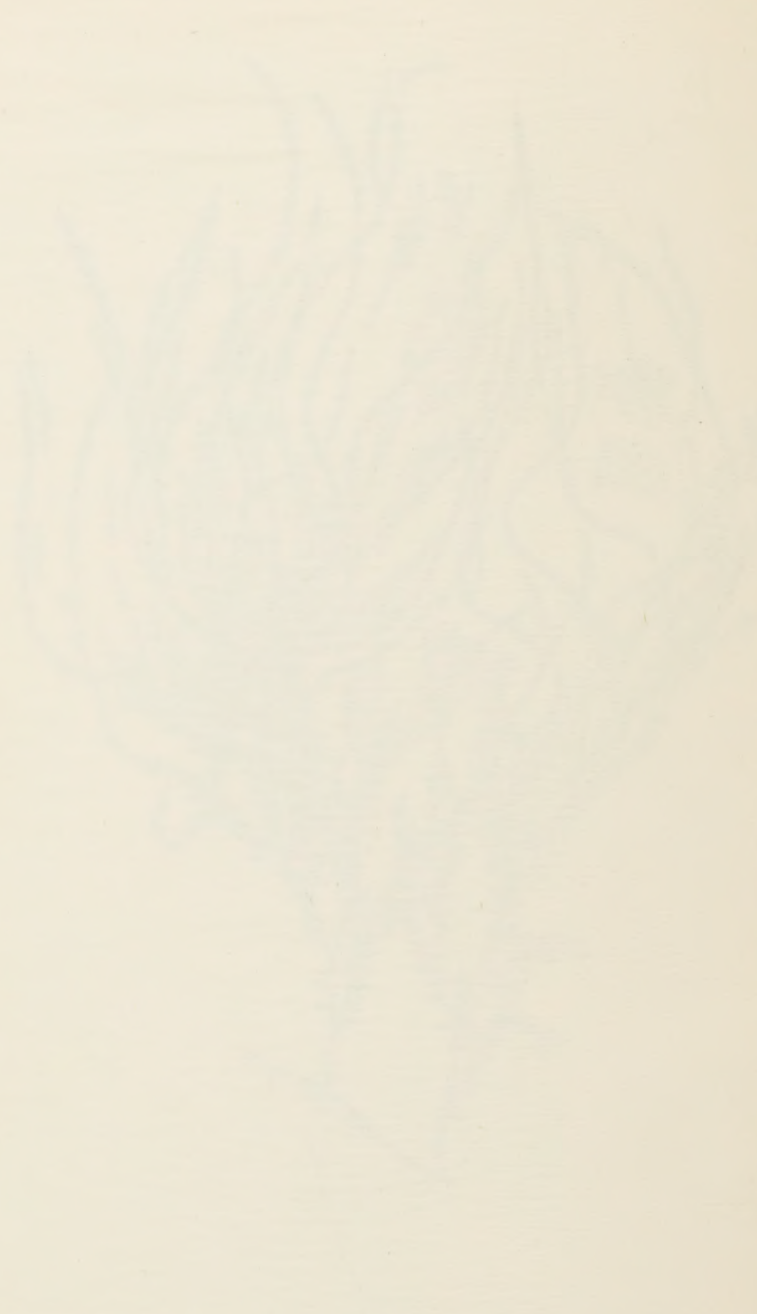
Selaginella australiensis





Selaginella Bakeriana







*Selaginella
brisbanensis*





Trichomanes Filicula



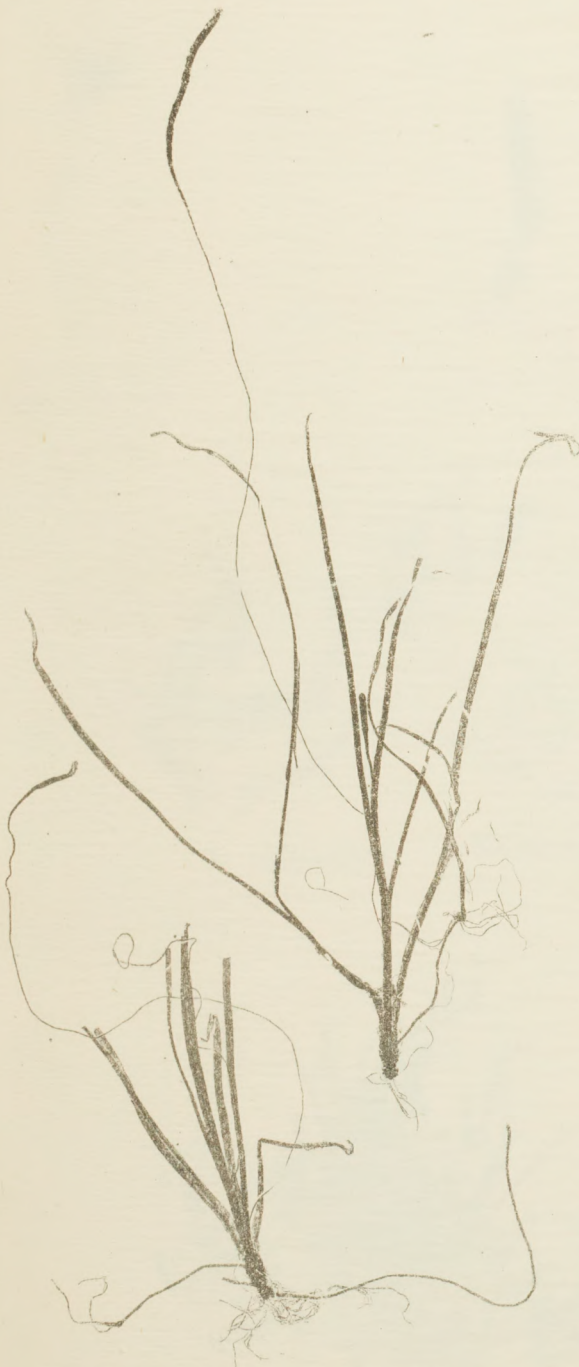


Asplenium resectum
var. *australiense*



Trichomanes caudatum





Vallisneria gracilis



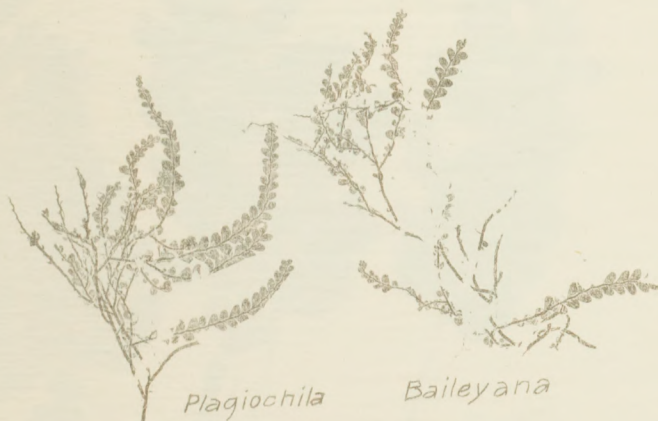




*Trichomanes
proliferum*



Plagiochila arbuscula



Plagiochila Baileyana



Enosmolejeunea Baileyana







Hymenophyllum

Trichomanoides





Vittaria wooroonooron



Polypodium albosetosum



Rhabdostegium ovale

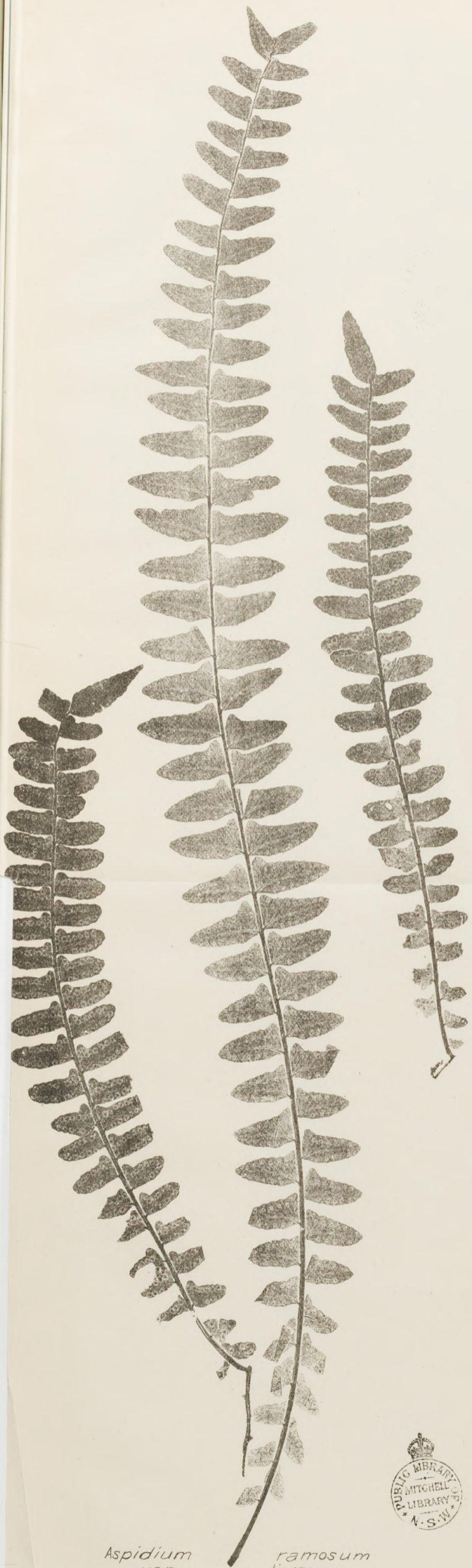


Schlotheimia Baileyi



Asplenium Hookerianum
var.





Aspidium
var.

ramosum
lineare





*Leucobryum
vesiculosum*



*Schistocheila
cristata*



*Anisothecium
pycnoglossum*



*Trematodon
Baileyi*







Pterobryum (Trachyloma)
recurvulum



Meteorium (Papillaria)
sigmatophyllum




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A synopsis of the Queensland
flora : containing both the
phaenogamous and
cryptogamous plants. Third
supplement

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