

A SYNOPSIS
OF
THE QUEENSLAND FLORA;

CONTAINING BOTH THE
PHENOGAMOUS AND CRYPTOGAMOUS PLANTS.

BY
FREDE. MANSON BAILEY, F.L.S.,
COLONIAL BOTANIST.

SECOND SUPPLEMENT.

BRISBANE:

JAMES O. BEAL, GOVERNMENT PRINTER, WILLIAM STREET.

1888.

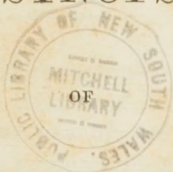
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PREFACE.

THE writer takes the present opportunity of thanking those correspondents who, from time to time, send him specimens of the plants of their district which appear new or strange to them, and solicits a continuance of the help thus rendered in making known the plants of the Colony. As, however, there may be other persons willing to collect and forward specimens, but who may be deterred through ignorance of what constitutes a botanical specimen, it may be again pointed out that a botanical specimen is such a portion of a plant as may enable a botanist to determine its name, &c. Thus, of a tree or shrub, a shoot, say six or nine inches long, bearing leaves, flowers, and fruit, if possible, will be sufficient. Of herbs, when small, an entire plant should be sent, collected when in flower. Of herbs of a large size, a portion of the lower (radical) leaves, and also a portion of the top, in flower or seed. All specimens should represent the typical form—not an abnormal or irregular growth, except to show such growth. After gathering, place the specimen between sheets of paper (old newspaper), and put the whole under a slight pressure; these papers should be changed for dry sheets every day for three or four days, when, if the specimens are not of a succulent nature, they will be in a fit state to forward by post, the cost of which will be 2d. per $\frac{1}{4}$ -lb. from any part of the Colony to Brisbane.

As stated previously, it was the intention of the writer to issue, at intervals of about three months, Papers containing descriptions of all additions to the Queensland Flora, but since the issue of the first of these Papers, in May, 1886, the Government Printer, from press of work, has not been able to print these Papers as they were prepared. It has therefore been deemed advisable to embody all descriptions of plants mentioned in "Occasional Papers, No. 1," with the material since accumulated, and issue a second supplement to the Synopsis of the Queensland Flora.

My thanks are due to Baron von Mueller, the Government Botanist of Victoria, for kindly furnishing for this work a full list of all the Queensland plants contained in his manuscript for the twelfth volume of the *Fragmenta Phytographiæ Australiæ*. Not being, however, able to give to such the exact locality where found, they will be noticed thus:—Hab.: Queensland.—*F. v. M.*; and for the same reason, plants given as belonging to Queensland in the third supplement to Baron von Mueller's *Census of Australian Plants* are marked thus:—Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

SECOND SUPPLEMENT

TO THE

SYNOPSIS OF THE QUEENSLAND FLORA.

Class I. DICOTYLEDONS.

SUBCLASS POLYPETALÆ.—SERIES THALAMIFLORÆ.
ALLIANCE RANALES.

Order DILLENiaceÆ.

HIBBERTIA, Andr.

SECTION HEMISTEMMA.

H. Millari, *Bail.* (After T. Barclay-Millar.) Branches slender, reddish-brown, silky-hoary or more or less clothed with white silky hairs. Leaves linear, acute, and apiculate, 2 to 3 inches long, 1 to $1\frac{1}{2}$ line broad, margins revolute, the upper surface glabrous, hoary-white on the under side, the midrib prominent but not rusty as in *H. angustifolia*. Spikes $\frac{3}{4}$ -inch long, terminal or in the upper axils bearing 1 or 2 flowers. Sepals ovate, about 4 to 5 lines long, silky-hairy outside. Petals cuneate, about 6 or 7 lines long, the end deeply emarginate. Stamens about 20, with a few filiform staminodia outside. Anthers oblong, longer than the filaments. Carpels 2, villous.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar.*

This species is very closely allied to *Hemistemma angustifolia*, R. Br., but of a more robust habit, with fewer and larger flowers in the spike, and wanting the prominent rusty-red midrib of the leaf of that species.

Order ANONACEÆ.

TRIBE MITREPHOREÆ.

MITREPHORA, Blume.

Trees. Leaves coriaceous, strongly ribbed, plaited in vernation. Flowers usually terminal or leaf-opposed, sometimes 1-sexual. Sepals 3, orbicular or ovate. Petals 6, 2-seriate, valvate; outer ovate, thin, veined; inner clawed, vaulted and cohering. Stamens oblong-cuneate; above anther-cells dorsal, remote. Carpels oblong; style oblong or clavate, ventrally furrowed; ovules 4 or more, 2-seriate. Ripe carpels globose or ovoid, stalked or sessile.—*Hook.*, Flora British India i. 76.

M. Froggattii, *F. v. M.* (After one of the discoverers of the plant.) So far as known, a tree of about 20 feet; the branchlets soon glabrous. Leaves on very short petioles, as much as 8 inches long and 3 inches broad, chartaceous, elliptic-lanceolate, acuminate, nearly or quite blunt at the base, glabrous on both sides, subtle-dotted, of a rather dark-green and shining on both sides, particularly beneath; distantly costate-nerved, prominent on the under side of leaf; veins thin, reticulate. Peduncles obliterated; pedicels axillary or lateral, solitary or 2 together, about twice as long as the petals, thin-downy, minutely scaly-bracteate at the base. All flowers seen only staminate. Sepals minute, about 1 line long, nearly deltoid, membranous. Petals black-purplish, somewhat curved inwards, 2 or 3 lines long; outer ones almost orbicular and nearly sessile, the inner ones considerably longer than the outer, roundish or obcordate-rhomboid, attenuated into a stalk-like base, bicallous above the middle inside, all as well as the sepals downy on the outside, and valvate in the upper part before expansion. Head of stamens rather depressed. Anthers numerous, broadly cuneate, truncate, almost sessile; connectives dark, their flat summits forming an even surface for the head of stamens; cells pale. Torus very convex, velvety-hairy. Fruit unknown.

Hab.: Mossman River.—Collected by *Sayer* and *Froggatt*.

In the absence of pistils it remains uncertain whether this interesting plant should be placed in the genus *Mitrephora* or *Goniothalamus*; but it is not dissimilar to *M. reticulata*, differing in glabrous more distinctly petiolated leaves, in fewer and larger flowers, and in dark-coloured petals, the inner quite blunt. In some respects it reminds of the *Oropheas*, particularly *O. zeylanica*, though the stamens are so different.—*F. v. M.* in *Austr. Journ. of Pharmacy*, Jan. 1887.

Order MENISPERMACEÆ.

TRIBE PACHYGONEÆ.

PYCNARRHENA, Miers.

Sub-erect or climbing shrubs. Flowers axillary, fascicled or shortly paniced, diœcious. Male flowers: sepals 6, with 3 bracts, inner larger, orbicular; petals 6, small, lobed; stamens 9, filaments very short; anthers sub-didymous, bursting transversely. Female flowers unknown. Drupe broadly oblong, sub-gibbous, style-scar lateral; endocarp sub-reniform. Seed slightly concave ventrally, albumen none; cotyledons oblong, half-terete, very thick, slightly incurved; radicle minute, ventral.—*Hook.*, *Flora of British India* i. 105.

P. australiana, *F. v. M.*, *Vict. Nat.*, Sept. 1886. A tall climber. Leaves glabrous (as far as seen), attaining 11 inches in length with a breadth of 5 inches, thick-chartaceous, shining on both sides, hardly paler on the back, ovate or elliptical, protracted into a short and blunt apex, distinctly penninerved and finely net-veined, on short petioles. Inflorescence axillary or lateral, with minute appressed hairs; the peduncles few or many together, rather elongated, 1 to 1½ inch long, branching cymosely about 1 inch wide. Pedicels 2 lines long, or

scarcely any. Sepals almost orbicular, in 3 rows, the outer 3 considerably shorter, the other 6 nearly equal, about a line long; the petals much smaller and almost rhomboidal. Stamens very short, the filaments nearly cuneate, united at the base. Anthers of the genus. Female flowers unknown. Carpels about $\frac{1}{2}$ -inch long, glabrous, obliquely ovate-globular, on often very short stipes; exocarp somewhat fleshy, endocarp thinly cartilaginous. Seeds obliquely ovate, about 4 lines long. Cotyledons very convex outward.—*F. v. M., l.c.*

Hab.: Endeavour River and near Trinity Bay.

The above species, Baron Mueller says, differs from *P. pleniflora* in shorter petioles, larger leaves, long peduncles, more distinctly pedicellate flowers, different proportionate size of sepals, and rather larger carpels; from *P. tumefacta* in leaves also dark-green underneath, not distinctly dilated petioles, 6 inner sepals, and perhaps also in fruit, but the disposition of the flowers is similar; from *P. lucida* and *P. manillensis*, the congener if far more removed. *P. nova-guinensis*, as yet imperfectly known, is in some respects allied to the Queensland species.—*F. v. M., l.c.*

ALLIANCE PARIETALES.

Order CRUCIFERÆ.

TRIBE LEPIDINEÆ.

CAPSELLA, Mœnch.

(So called from its small seed-vessel.)

Sepals spreading, equal at the base. Petals short. Pod ovoid or oblong, laterally compressed or nearly terete, the valves very turgid or boat-shaped, keeled, the septum thin; style short or the stigma sessile. Seeds several, in 2 rows, not bordered, on free funicles; cotyledons incumbent or rarely accumbent. Small or weak annuals. Radical leaves rosulate, entire or lobed. Racemes slender, with small white flowers.—*Flora Austr. i. 81.*

C. Bursa-pastoris, *Mœnch*, DC. Prod. i. 177. (*Thlaspi Bursa-pastoris*, Linn.) Shepherd's Purse. Root tapering often to a great depth. Radical leaves spreading on the ground, pinnatifid, with a large ovate or triangular lobe or sometimes entire. Stem erect, from a few inches to 1 foot high or more, rather rough and often hairy, with a few oblong or lanceolate entire or toothed leaves clasping the stem with projecting auricles. Pods in a long loose raceme, usually triangular-truncate at the top, with the angles slightly rounded and narrowed at the base, sometimes notched at the top and almost orbiculate. Seeds 10 to 12 in each cell.—*Bentham's British Flora i. 79.*

Hab.: An introduced weed met with by Mrs. C. G. Spencer, at Albany Downs, Mitchell, and near Brisbane and Lytton.—*Bail., Aug. 1886.*

C. Andræana, *F. v. M.*, Wing's Sou. Sc. Rec., Mar. 1885. Annual, dwarf, erect. Stem as well as branches, flower-stalks, and stalklets beset with short papillular hair. Leaves short, linear, blunt, entire, glabrous; racemes short. Flowers minute; sepals soon spreading;

petals white or yellowish, not or little longer than the sepals; filaments partly dilated at the base; anthers yellowish, cordate-roundish; stigma sessile. Fruit small, ellipsoid or globular-ovate, turgid, glabrous, not divided nor dilated at the summit, on a stalklet of usually the same length; valves subtilely 1-nerved, not keeled nor much compressed; septum lanceolar. Seeds generally 4 in each cell, ovate-roundish, compressed, brown-yellowish, margined by indurated through moisture much-expanding mucus.

Hab.: Between the Lachlan and Darling Rivers.—*H. Andra.*

In some respects allied to *C. pilulosa*, in others to *C. humistrata*.—*F. v. M., l.c.*

Order CAPPARIDÆ.

TRIBE CLEOMEÆ.

CLEOME, Linn.

C. grandiflora, *F. v. M.*, Third Suppl. Muell. Cens. Austr. Pl.

Bentham, in *Flora Austr.* i. 91, who notices this plant as a form of *Polanisia*, says of it:—"Slightly pubescent. Leaflets narrow. Sepals about 4 lines long, petals nearly 1 inch long. Capsule above 4 inches long. Hab.: North-west coast and Sweer's Island."

C. pungens, *Willd.* Spider-flower. A robust annual clothed with a glandular pubescence, having a heavy scent, 2 to 5 feet high. Stipules spiny. Leaves petiolate, of from 5 to 7 lanceolate leaflets; petioles and midribs prickly. Stamens 6, long exerted from the corolla. Ovary much shorter than the gynophore. Ripe capsule about 4 inches long.

Hab.: A South American plant now naturalised. Near towns, a stray from garden culture; considered a good bee plant.

ALLIANCE CARYOPHYLLINÆ.

Order CARYOPHYLLÆ.

TRIBE ALSINEÆ.

SPERGULA, Linn.

(Said to be so named because it scatters its seed.)

Sepals 5. Petals 5, entire. Stamens 10, rarely 5. Ovary 1-celled, with numerous ovules; styles 5, alternate with the sepals. Capsule 5-valved; valves entire, opposite the sepals. Seeds slightly flattened, with or without a scarious border. Slender herbs, with narrow-linear leaves in opposite clusters so as to appear whorled, and minute scarious stipules.

S. arvensis, *Linn.* Corn Spurry. A slender annual, branching at the base into several erect or ascending stems, 6 inches to 1 foot high, glabrous or slightly downy. Leaves almost subulate, 1 to 2 inches long, growing 6 or 8 together in two opposite clusters, and spreading so as to appear whorled; the scarious stipules small, sometimes

difficult to see. Flowers small, white, on long slender pedicels, turned down after flowering, in terminal forked cymes. Sepals $1\frac{1}{2}$ to 2 lines long; petals generally shorter; stamens frequently 10 or 5 in different flowers of the same plant. Seeds slightly flattened, with or without a narrow scarious border.

Hab.: This common cornfield weed of Europe has become naturalized around some of the towns of Southern Queensland.—South Brisbane, *John F. Shirley*.

TRIBE POLYCARPEÆ.

DRYMARIA, Willd.

(So named from the Greek *drymos*, a forest; the plants usually being found on forest land.)

Sepals 5, herbaceous or scarious on the edge. Petals 5, 2 to 6-cleft. Stamens 5 or fewer, slightly perigynous. Style 3-cleft; capsule 3-valved. Seeds laterally attached; embryo curved round the albumen. Herbs, usually diffuse, rarely erect, with dichotomous branches. Leaves flat, broad or narrow. Stipules very small, sometimes very fugacious or wanting. Flowers pedicellate, usually small, either solitary in the forks or in little axillary or terminal cymes. Petals usually shorter than the calyx.—*Flora Austr.* i. 162.

D. diandra, *Blume*, *Bijdr. tot de Fl. van Nederl. Indie* 63; *Muell. Papuan Plants* 86. Leaves glabrous, rhomboid or cordate-orbicular, conspicuously stalked. Stipules fringy-cleft; cymes paniculate, with elongated glandular-powdery peduncles; flowers small; sepals only slightly scarious, their middle nerve forming a narrow pulverulent keel; petals deeply cleft into 2 segments; stamens usually 2; style almost none; stigmas 2; fruit valveless or imperfectly 2-valved. Seeds large, 1 rarely 2, closely filling the cavity of the pericarp, black, opaque, glandular-scarious.—*F. v. M.*, *Papuan Plants* 86.

Hab.: Baron Mueller writes me that this has at last been met with in Queensland, which he predicted when giving the above description of the form in "Papuan Plants."

ALLIANCE GUTTIFERALES.

Order GUTTIFERÆ.

TRIBE CALOPHYLLÆ.

KAYEA, Wall.

(Named after Dr. R. Kaye Greville.)

Trees. Leaves opposite, veins rather distant, arched. Flowers hermaphrodite, either large and solitary, or small and collected in terminal panicles. Sepals and petals 4 each, imbricate. Stamens numerous; filaments slender, free or connate at the base. Anthers small, subglobose, 2-celled, dehiscence vertical. Ovary 1-celled, style slender, stigma acutely 4-fid; ovules 4, erect. Fruit sub-drupacious, fleshy, indehiscent, 1 to 4-seeded. Seeds thick, testa thin and crustaceous.—*Hooker's Flora of British India* i. 276.

K. Larnachiana, *F. v. M.*, Vict. Nat., Jan. 1887. (After James McD. Larnach.) Supposed to be a tree about 20 feet in height, the bark of the branchlets somewhat cracked. Leaves on very short petioles, elliptic-lanceolate, in rather distant pairs, chartaceous; on the specimens seen from 5 to 7 inches long and from $1\frac{1}{3}$ to 2 inches broad, nearly smooth, and scarcely shining on the upper surface, rounded at the base, the apex slightly pointed, very thinly penninerved, the faint reticulations immersed. Inflorescence in short terminal panicles or bundles without common peduncle; bracts obliterated or very fugitive; pedicels about the length of the calyx, bearing very minute deltoid bracteoles below the middle. Flower-buds globular, calyx glabrous, measuring hardly $\frac{1}{4}$ -inch, thinly coriaceous, pellucid and imbricating at the edge, the sepals finally enlarged to an inch long, the two outer ones roundish, rough, developing a brownish film, the two inner ones more oval. Petals roundish, membranous, glabrous. Stamens numerous, slightly connate at the base. Filaments very thin, the summit pointed. Anthers almost orbicular, fixed above the base; the cells surrounding the short and broad connective, dehiscent along the margin. Style glabrous, subulate-filiform, short; stigmata minute, pointed. Fruit indehiscent, rather large, globular, somewhat pointed, 1-seeded, the pericarp coriaceous, the one seed filling the cavity, basifixed, sessile. Arillus none; testa chartaceous, smooth; embryo almost globular, carnulent.

Hab.: Mossman River.—*W. Sayer*.

The descriptive notes are elaborated from specimens with young flower-buds and with over-ripe fruit.

This Australian species is evidently nearest allied to *K. racemosa*, but it has only faint nerves to the leaves, shorter petioles, and pluriseriate stamens; and perhaps the fruit of *K. racemosa*, when discovered, may show differences also.—Vict. Nat., l.c.

ALLIANCE MALVALES.

Order MALVACEÆ.

TRIBE MALVEÆ.

ABUTILON, Gærtn.

A. halophilum, *F. v. M.*, Linnæa xxv. 381.

Bentham, in Flora Austr. i. 205, places this plant as a form of *A. Fraseri*, Hook., saying it differs from the normal form in its leaves being usually orbicular, very obtuse, often truncate or retuse, and the carpels being 5 or 6 lines long, very broad and obtuse. Baron Mueller, however, from further specimens, considers it to have specific characteristics.

Hab.: Queensland Border.—*F. v. M.*

Order STERCULIACEÆ.

TARRIETIA, Blumé.

T. trifoliolata, var. **peralata**, *Bail.*, Occ. Pap. on Q. F., No. 1. (The latter name suggested by the large wings of the carpels.) The Johnstone River Red Beech. A large erect tree, the stem often exceeding 5 feet in diameter. Leaves trifoliolate, the petioles

somewhat angular, mostly 2 or 3 inches long. Leaflets lanceolate, from 4 to 7 inches long and from 1 to 2 inches broad towards the middle; the indumentum more silvery than usual in this species, but with the same numerous small brown scales. Inflorescence not sent by collectors. Samaroid carpels muricate, oval or globose, $\frac{1}{2}$ to $\frac{3}{4}$ inch long by about $\frac{1}{2}$ -inch diameter, furnished with an oblong, oblique, erect wing 2 to 4 inches long by about $1\frac{1}{4}$ inch broad, clothed with the same rusty stellate scales as the underside of the leaves.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft* (carpels); *A. E. Miskin* (foliage). Mr. Miskin says the timber is not unlike Cedar in appearance, but is harder than that wood. It is used for building purposes, but soon decays if exposed to bad weather; and therefore is better suited for indoor work.

This form seems to differ in colour of wood and slightly in the indumentum, but principally in the size of the wings of carpels.

T. trifoliolata, var. angustifolia (provisional). This is another form of the foregoing species, differing, so far as can be judged in the absence of fruit and flowers, in the much smaller foliage, the leaflets narrow-lanceolate, 2 to 3 inches long and often not $\frac{1}{2}$ -inch wide.

Hab.: Endeavour River.—*W. A. Persieh*.

Order TILIACEÆ.

TRIBE GREWIEÆ.

TRIUMFETTA, Linn.

T. rhomboidea, *Jacq.*, DC. Prod. i. 507. Chinese Burr. A small shrub, glabrous or pubescent. Leaves polymorphous, ovate-rhomboid or cordate, 3 to 7-nerved, the apex acute or somewhat 3-lobed, serrate, variable in amount and quality of pubescence. Flowers about $\frac{1}{4}$ -inch diameter, yellow, in small dense cymes. Pedicels short. Flower-buds oblong, club-shaped, apiculate. Sepals oblong, apiculate. Petals oblong, ciliate at the base. Stamens 8 to 15. Capsule globose, the size of a small pea, albido-tomentose between the spines; spines hooked, glabrous or ciliated, 3 to 5-valved.—*Masters* in Fl. of Brit. Ind. and Trop. Afr.

Hab. in Queensland: Townsville and Cooktown, where it has probably been introduced by the Chinese. This pest in one or other of its many forms is found in India, Ceylon, ascending to 4,000 feet in the Himalaya, Malay Islands, China, Tropical Africa, and West Indies.

SERIES DISCIFLORÆ.—ALLIANCE GERANIALES.

Order ZYGOPHYLLÆÆ.

ZYGOPHYLLUM, Linn.

Z. prismatothecum, *F. v. M.* in Linnæa xxv. 375; Flora Austr. i. 293. A much-branched small annual. Leaves rather thick, the leaflets, in the few specimens seen, short, and confluent with the more or less dilated petiole so as to form a single 2-lobed leaf. Flowers small, 4-merous, the filaments dilated at the base and toothed or entire.

Capsules nearly sessile, oblong, 4-angular, about 4 lines long, of equal breadth at the base and the top, where the angles terminate in small erect leafy appendages. Seeds solitary in each cell.—Flora Austr., l.c.

Hab.: Queensland border.—*F. v. M.*

Order GERANIACEÆ.

Tribe OXALIDEÆ.

OXALIS, Linn.

O. (Biophytum) Apodiscias, *Turez.* Stems 1 to 6 inches high, slender. Leaves 1 to near 2 inches long, crowded with from 5 to 7 pairs of ciliate leaflets, the lowest smallest, orbicular-ovate, the middle one truncate at the base, the terminal with a contracted oblique base and arched midrib, the lateral nerves prominent, horizontal, wavy; petiole puberulous. Pedicels sessile; sepals exceeding the pedicels, about 2 lines long, striate, with scarious margins. Corolla purple or red, or appears so in the dry specimen. Capsule slightly exceeding the calyx. Seeds tuberculate.—*Hooker's* Flora of British India i. 437 in part, where *O. sessilis*, Hamilt., and *O. Petersii*, Klotz, are given as synonyms.

Hab.: Musgrave Electric Telegraph Station.—*T. Barclay-Millar.*

Leaves endowed with gentle movements under the influence of light, darkness, or shocks, like those of *Mimosa pudica*, &c.

Order RUTACEÆ.

TRIBE BORONIEÆ.

ZIERIA, Sm.

Z. pilosa, *Rudge* in Trans. Linn. Soc. x. 293 t. 17; Flora Austr. i. 304. (So named from the plant being hairy). A small shrub, the branches terete and densely pubescent or hirsute. Leaflets 3, with a short common petiole, linear, oblong or lanceolate, obtuse, $\frac{1}{2}$ to $\frac{3}{4}$ inch or rarely 1 inch long; the margins recurved or revolute, slightly pubescent or glabrous above, more or less hirsute or tomentose underneath. Flowers small, solitary and nearly sessile, or 2 or 3 together on short pedicels. Calyx hirsute, with linear-subulate or narrow-lanceolate lobes nearly as long as the petals, and always much narrower than in most species. *Z. pauciflora*, Sm.; *Z. hirsuta*, DC.—Flora Austr., l.c.

Hab.: Herberton.—*Rev. J. E. Tenison-Woods.*

ALLIANCE OLACALES.

Order OLACINEÆ.

TRIBE ICACANEÆ.

PENNANTIA, Forst.

Flowers diœcious or polygamous. Calyx minute. Petals 5, hypogynous, glabrous, valvate in the bud. Stamens 5, alternating

with the petals; anthers oblong-sagittate. Ovary 1-celled; stigma nearly sessile, entire or 3-lobed; ovule solitary, suspended from the apex of the cavity. Drupe with a hard putamen or almost baccate, with a slightly coriaceous endocarp. Seed pendulous; embryo small within the apex of the fleshy albumen. Trees. Leaves thinly coriaceous, entire or coarsely toothed. Flowers in terminal corymbose panicles.—Flora Austr. i. 395.

P. Cunninghamii, *Miers* in Ann. Nat. Hist. ser. 2 ix. 491, and Contrib. 80 t. 12; Flora Austr. i. 395; Fragn. ix. 150. A tree of considerable size. Leaves ovate or broadly elliptical, obtuse or acuminate, 4 to 6 inches long, entire or with a few distant teeth, coriaceous and shining when old, of a lively green, narrowed into a petiole of $\frac{1}{2}$ -inch or more. Flowers numerous, in broad rather dense panicles, either terminal or in the upper axils; the males only known. Calyx scarcely prominent. Petals nearly $1\frac{1}{2}$ line long. Filaments bent in below the summit in the bud; anthers oblong, sagittate. Rudimentary ovary narrow, with 2 or 3 erect style-like lobes, and occasionally containing an imperfect pendulous ovula. Drupes or berries ovoid, about $\frac{1}{2}$ -inch long, the endocarp scarcely hardened. Seed pendulous; testa thinly membranous; embryo much shorter than the albumen.

Hab.: Mount Mistake, where it forms a large timber tree. The leaves on shoots springing from old stumps are often large and toothed at the end. Only specimens with half-ripe fruit have been collected; and as these were gathered in June it is probable the trees were in flower a month earlier. Baron Mueller, Fragn. ix. 150, mentions this tree attaining the height of 100 feet in N.S.W.; but Bentham, in Flora Austr. i. 395, calls it a tall shrub, and as such the tree is briefly mentioned at page 807 of this work.

VILLARESIA, Ruiz et Pav.

V. Moorei, *F. v. M.* (After Chas. Moore, Director of Botanic Gardens, Sydney). A tall tree, glabrous except the inflorescence. Leaves ovate-lanceolate or oblong, acuminate, 3 to 4 inches long, entire, narrowed into a short petiole, coriaceous and shining. Raceme-like panicles irregularly lateral or axillary, 2 to 4 inches long, hoary with a minute pubescence. Cymes numerous, few-flowered, on short peduncles along the rhachis. Flowers almost sessile in the cymes, those seen all males. Petals 1 line long, very slightly imbricate. Drupes globular, the putamen hard, about $\frac{1}{2}$ -inch in diameter, rugose outside, the half-dissepiment projecting quite to the centre of the cavity and there slightly thickened, forming a column up the centre of which the placenta appears to pass, as if the endocarp had grown over it. Seeds quite enclosing the half-dissepiment, its tranverse section being horseshoe-shaped.—Flora Austr. i. 396.

Hab.: A large timber tree of the Bunya Mountain; appears to belong to the above, but I have only seen old fruit-racemes and fruit. The latter resemble English damsons in shape and colour.—See Catalogue of Queensland Woods, No. 74c.

ALLIANCE CELASTRALES.

Order CELASTRINEÆ.

HYSOPHILA, F. v. M., Vict. Nat., April 1887.

(A lover of heights; found at a high elevation.)

Sepals 5, roundish, much overlapping in bud, persistent; the 2 outer smaller than the 3 inner. Petals 5, orbicular, entire, smooth, deciduous. Stamens 5, opposite the sepals, very short, inserted towards the centre of the disk; filaments free, filiform; anthers almost reniform, the cells divergent, dehiscence by an external slit. Disk depressed, crenulated. Style extremely short; stigma orbicular, convex, with a central cavity. Ovary immersed in the disk, 3-celled; ovules many, axillary, ascendant. Fruit almost ellipsoid, somewhat pointed; pericarp coriaceous, tardily ruptured into 3 valves; septa membranous. Seeds several in each cell, almost ovate, somewhat oblique, long-persistent on elongated crisped funicles, and clasped at the base by an obconic-cupular arillus. Testa thinly crustaceous. Raphe longitudinal, prominent. Albumen carnulent. Embryo straight, somewhat shorter than the albumen. Cotyledons flat, about twice as long as the cylindric inferior radicle. A tree, with scattered coriaceous oval or lanceolate-elliptical entire leaves, with short axillary cymes of small flowers and with rather large particularly elongated fruits.—*F. v. M., l.c.*

H. Halleyana, *F. v. M.*, Vict. Nat., 1887. (After the Rev. J. J. Halley, of Melbourne.) An evergreen glabrous tree attaining the height of about 40 feet. Branchlets angular, often flexuous. Leaves flat, rather blunt, attaining 4 inches in length and $1\frac{1}{2}$ inch in breadth, on short petioles; upper surface dark-green, lower much paler; not shining; nerves faint, veins concealed. Cymes much shorter than the leaves, at times reduced to 2 or 3 flowers. Bracts and bracteoles minute, lanceolar-deltoid, the latter distant from the calyx. Petals about twice as long as the inner sepals, dull-red according to the collector's notes, hardly attaining above $\frac{1}{8}$ -inch in length. Filaments not reaching beyond the disk, persistent; anther-cells ellipsoid, deciduous. Stigma not broader than the style. Fruit 1 to $1\frac{1}{2}$ inch long. Arillus of about $\frac{1}{4}$ -inch in length, the funicle sometimes quite as long. Seeds seldom exceeding $\frac{1}{4}$ -inch in length; testa brown, slightly wrinkled, subdotted.—*F. v. M., l.c.*

Hab.: In the highest regions of Mount Bellenden-Ker, descending to about 4,000 feet.—*W. Sayer.*

This new genus is readily separable from *Euonymus* on account of the scattered leaves, the entire stigma, and the many-seeded not prominently angular fruit; from *Lophopetalum* in deeper and more unequally divided calyx, not appendiculated petals, and form of the anthers; from *Hedraianthera* in neither anthers nor stigma sessile, not hard pericarp, and the shape of the arillus; from *Leucocarpon* in the structure of the anthers, undivided stigma, not bony pericarp, and seeds much emerging from the arillus.—*F. v. M., l.c.*

Hedraianthera porphyropetala, page 59 of the first part of this work, should be placed in this order, not in *Meliaceæ*. The shrub is abundant at Pimpama and Tambourine Mountain; flowers minute, deep-red.

Order STACKHOUSIÆ.

MACGREGORIA, F. v. M., Fragm. viii. 160.

(After John Macgregor, of Victoria.)

Sepals 5, narrow-lanceolate, imbricate in the bud, free, persistent. Petals 5, almost hypogynous, free, membranous, alternate with the sepals, imbricate in the bud, oblong or obovate, spathulate, deciduous. Stamens 5, alternating with the petals. Filaments free, very short. Anthers linear-oblong, 2-celled. Pollen-grains oval, very smooth. Stigmata 5. Cocci 5, superior, obovate, indehiscent, 1-seeded. A glabrous annual with but few linear leaves and terminal racemes of flowers.—*F. v. M.*, Fragm. viii. 160.

M. racemigera, *F. v. M.*, Fragm. viii. 161. (Flowers in racemes.) A small, erect, or ascending branched herb. Leaves entire, somewhat acute, $\frac{1}{4}$ to $\frac{3}{4}$ inch long, $\frac{1}{4}$ to $\frac{3}{4}$ line broad. Pedicels very slender, $1\frac{1}{2}$ to 4 lines long. Sepals about 1 line long, with a very narrow membranous margin, joined together only just at the very base. Petals 3 to 5 lines long. Anthers $\frac{1}{2}$ -line long, light-yellow, terminated by a very small, oval, white appendage. Cocci about $\frac{1}{2}$ -line long, sprinkled with very short hooked hairs. Testa shining, smooth, and marked with very fine dots.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order RHAMNEÆ.

POMADERRIS, Labill.

P. lanigera, *Sims*, Bot. Mag. t. 1823. (Alluding to the woolly clothing of plant.) An erect branching shrub, with oblong leaves $1\frac{1}{2}$ to 3 inches long, velvety-tomentose on both sides; the under surface much more dense and of a rusty colour. Panicles corymbose, calyx 2 or more lines long, very densely and softly hairy; the turbinate tube about half as long as the lobes. Petals ovate, concave, on slender claws. Capsule hairy.—*Flora Austr.* i. 416.

Hab.: Stanthorpe.—*L. A. Bernays, junr.*

ALLIANCE SAPINDALES.

Order SAPINDACEÆ.

CUPANIA, Linn.

C. Shirleyana (sp. nov.) (After J. F. Shirley, who has taken a great interest in the Field Naturalist Section of the Royal Society of Queensland.) A large shrub or small tree, the branchlets rusty-pubescent. Leaves 2 to 5 inches long; leaflets 7 to 15, the lowest the smallest, often not more than 3 lines in diameter, very unequal-sided

at the base, and overlapping the stem like stipules, increasing in size upwards, the end ones attaining the length of 2 inches, cuneate in outline, the upper part sharply toothed, the end very obtuse or truncate, glossy above, more or less pubescent beneath; primary veins very oblique and prominent, as are also the smaller reticulations. Flowers small, nearly sessile, in slender racemes about as long as the leaves. Sepals orbicular, silky, much imbricate. Petals ovate, glabrous, nearly 1 line long, the inside scale divided into 2 hairy spathulate lobes as long as the petal; disk prominent. Stamens usually about 8, but very irregular as to number; scarcely exerted. Ovary hairy. Capsule $\frac{1}{2}$ to $\frac{3}{4}$ inch long, shortly stipitate, pubescent outside and silky-hairy inside. Seeds dark-brown, somewhat pear-shaped, and more than half enveloped in a reddish arillus.

Hab.: Sankey's Scrub, off the Logan road, near Brisbane.

NEPHELIUM, Linn.

N. subdentatum, *F. v. M.*; *Benth.* in *Flora Austr.* i. 465; *F. v. M.* in *Fragm.* ix. 99. A tree of medium size, with smooth dark bark, the young shoots and inflorescence pubescent. Leaflets often few, ovate-lanceolate, obtuse or scarcely acute, irregularly sinuate-toothed or almost entire, glabrous on both sides or very nearly so, and shining above. Panicles short, little branched. Pedicels short. Calyx truncate or shortly and broadly lobed. Petals none. Filaments very short; anthers oblong, sometimes scarcely pubescent. Ovary tomentose, 2 to 3-celled; fruit truncate at the top, slightly hoary with minute tomentum, lobes usually 2, compressed-globular, united to the top, hard, indehiscent.

Hab.: Nerang Creek.—*H. Schneider.* Rockhampton.—*O'Shanesy.*

DODONÆA, Linn.

D. attenuata, *A. Cunn.* in *Field N.S.W.* 353; *Flora Austr.* i. 477; *Bot. Mag.* t. 2860. A somewhat viscid shrub. Leaves linear or narrowly linear-cuneate, obtuse, often slightly sinuate-toothed, rather thick and rigid, 1-nerved, the lateral veins inconspicuous, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long in the original form, but sometimes longer. Flowers and capsules of *D. viscosa*, under which it should probably be placed.

Hab.: Queensland southern border.—*J. Ivory.*

D. megazyga, *F. v. M.* in *Flora Austr.* i. 483; *Fragm.* ix. 86. (Pairs of leaflets large.) A tree attaining in the New England forest a height of 30 feet. The leaflets are flat, inæquilateral acute at the base; the calyces of almost equal length with the stamens. Anthers rather broad, apiculate by the extension of the little-bearded connective, sometimes exceeding in length the filament. Capsules more frequently resembling those of *D. viscosa* than those of *D. platyptera*. Wings of the capsules anteriorly broad, far higher than the short lobules, extending from the top to the base of the capsules.—*F. v. M.*, *l.c.*

Hab.: Nerang Creek. A tree about 20 feet high.—*H. Schneider.*

SERIES CALYCIFLORÆ.—ALLIANCE ROSALES.

Order LEGUMINOSÆ.

SUBORDER PAPILIONACEÆ.—TRIBE GENISTEÆ.

CROTALARIA, Linn.

SERIES DIGITATÆ.

C. dissitiflora, *Benth.* Var. *eremœa*. Shrub about 3 feet high, clothed with a bright silvery tomentum. Leaves on long petioles, the two lateral leaflets quite minute, the middle one about 1 inch long. Flowers yellow, somewhat distant, in erect terminal raceme.

Hab.: Queensland southern border.—*J. Ivory*.

TRIBE TRIFOLIEÆ.

TRIGONELLA, Linn.

(Said to be so called from the triangular appearance of its flowers.)

Calyx-teeth nearly equal. Petals free from the staminal tube; standard obovate or oblong, narrowed at the base but scarcely clawed; wings and keel shorter, obtuse. Upper stamen free, or at first united with the others; filaments not dilated; anthers uniform. Ovary sessile or shortly stipitate, with several ovules; style filiform. Pod either linear, straight, or curved, or in species not Australian, flat and falcate, or short with a long beak, 2-valved or indehiscent. Seeds not strophiolate. Herbs often strong-scented. Leaves pinnately 3-foliolate, the leaflets usually denticulate. Stipules adnate to the petiole. Flowers yellow, white, or blue, in axillary heads, umbels, or short racemes.—*Flora Austr.* ii. 186.

T. suavissima, *Lindl.* in *Mitch. Three Exped.* i. 255. (Plant very sweet, hence the name.) Sweet-scented Bird's-foot. Trefoil, Trigonal, or Fenugreek. An annual, either quite glabrous or sprinkled with a few hairs on the underside of the leaves and on the calyces, the stems prostrate or ascending, from $\frac{1}{2}$ to 2 or 3 feet in length. Leaflets broadly obovate or obcordate, rarely above $\frac{1}{2}$ -inch long, more or less denticulate, on a long slender petiole. Stipules semi-sagittate, deeply toothed. Flowers small yellow, in sessile clusters. Calyx about 2 lines long, the lobes lanceolate-subulate, rather rigid, fully as long as the tube. Standard longer than the calyx; wings and keel scarcely shorter. Upper stamen free. Pod linear, curved, almost obtuse, $\frac{1}{3}$ to $\frac{3}{4}$ inch long and about 1 line broad, opening in 2 thin reticulate valves either flat or undulate.—*Flora Austr.* ii. 187.

Hab.: *F. v. M.*, Third Supp. Cens. Austr. Pl.

Used by Sir Thos. Mitchell as a vegetable.

TRIBE GALEGEÆ.

PSORALEA, Linn.

P. pustulata, *F. v. M.* in *Trans. Vic. Inst.* iii. 54. (Name referring to the blister-like glands with which the plant is covered.)

A small shrub with stout, rigid, erect branches, loosely pubescent and sprinkled with large almost scale-like glands. Leaves pinnately 3-foliolate; leaflets obovate or oblong, very obtuse, 1 to 2 inches or sometimes the terminal one 3 inches long, entire, softly pubescent. Stipules broad, rigid, striate. Flowers shortly pedicellate, in rather loose axillary racemes of 2 to 4 inches, flowering almost from the base. Calyx about 3 lines long, slightly pubescent and sprinkled with prominent glands; the lobes rather broad, the 4 upper ones very short, the lowest nearly twice as long. Petals half as long again as the calyx, the standard rather broad. Pod enclosed in the somewhat inflated calyx, ovate-oblong, slightly hairy, very glandular.—*Flora Austr.* ii. 191.

Hab.: Lawn Hill, Burketown; on sandstone ranges.—*F. H. Hann.*

SUBORDER CÆSALPINIÆ.—TRIBE CASSIÆ.

CASSIA, Linn.

SUBGENUS SENNA.

SECTION ONCOLOBIUM.

C. occidentalis, *Linn.*, *Spec. Pl.* 539; *Benth.* in *Trans. Linn. Soc.* 27 p. 532. Stem firmly herbaceous or woody below, annual or of 2 or 3 years' duration, erect, often forming dense bushy masses, a few feet in height, glabrous or nearly so. Leaflets membranous, 4 to 5 pairs, ovate or elliptical-lanceolate, usually acute or acuminate, glabrous, minutely ciliate or absolutely pubescent beneath, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, the upper varying to 3 or 4 inches; common petiole without interpetiolar glands, but with a short obtuse gland near the base, black when dry. Stipules lanceolate or ovate-lanceolate, membranous, deciduous. Flowers in short few-flowered axillary racemes or fascicles, the peduncle and pedicels seldom exceeding 1 inch, or towards the ends of the branches, the fascicles confluent, forming an interrupted terminal raceme; the leaves reduced or bract-like. Bracts thin, linear-lanceolate or oblong, acuminate, deciduous. Sepals obtuse, glabrous or nearly so, the outer rather shorter. Petals obtuse, venose. Two anterior stamens larger, with slightly curved anthers $\frac{1}{4}$ -inch long, shortly and broadly produced at the apex. Legume 2-valved, linear compressed, slightly falcate or straight, apiculate, rather coriaceous, margined with straight sutures, $3\frac{1}{2}$ to 5 inches long, 3 or 4 lines broad; the pericarp when dry usually depressed between the seeds, which are usually but not always flattened in the same plane as the pod. Cotyledons plane, or nearly so, in the larger diameter of the seeds, enclosed between thick layers of albumen.—*Oliver's Fl. Trop. Afr.* ii. 274.

Hab.: Endeavour River near Cooktown, *Robt. McDougall*, who sent it to Brisbane as a suspected poison herb.

This plant is probably of American origin, but now common in tropical America, Asia, Africa, and seems naturalised also in Queensland. Dr. Lindley, *Flora Medica*, 261, says:—"The root greatly stimulates the lymphatic system, and is, therefore, very beneficial in obstructions and weakness of the stomach and incipient dropsy, against which disease it is used as a diuretic."

PETALOSTYLES, R. Br.

P. labicheoides, *R. Br.* Var. *cassioides*. A rather tall slender shrub of from 5 to 8 feet. Leaflets much smaller, numerous, obovate or oblong, obtuse or retuse.

Hab.: Gulf country.—*Dr. Thos. L. Bancroft.*

TRIBE AMHERSTIÆ.

AFZELIA, Sm.

(After Dr. Adam Afzelius, a Swedish botanist.)

Calyx-tube narrowly infundibuliform or cylindrical, limb 4-partite, segments entire, subequal or inner pair slightly longer, imbricate. Vexillum exceeding (sometimes many times) the calyx, clawed, lamina bilobate or subentire; lateral and anterior petals minute or squamiform or none. Perfect stamens 7, filaments elongate, very shortly coherent at the base; anthers versatile, oblong, dehiscing longitudinally; staminodia 2, subulate or filiform, one at each side of the vexillum; posterior stamen wanting. Ovary shortly stipitate, narrowed above into the slender style; ovules 8 to 10 or more. Legume oblong, elliptic, or obovate-oblong, 2-valved, several-seeded; valves thick, woody, smooth or nearly so externally, with transverse cellular or sponging septa internally separating the seeds. Seeds (in well-ascertained species) large, oblong or ellipsoidal, smooth, black, with a large, cupuliform, closely investing scarlet or yellow arillus investing the lower third. Unarmed trees. Leaves abruptly pinnate. Flowers in terminal simple or paniced racemes. Bracteoles inserted on the pedicel at the base of the calyx-tube, shorter than the bud, caducous or falling by the time of expansion.—*Oliver* in *Flora of Tropical Africa* ii. 301.

A. australis, *Bail.* Johnstone River Teak. A lofty tree, attaining a height of over 100 feet, with an erect trunk over 2 feet in diameter; bark covered by rather large lenticellæ, and exfoliating by hard thick oval or oblong patches, similar to some *Flindersias* and the Red Cedar; wood very hard and durable, of a reddish-brown. Leaves alternate, glabrous, of 2 or 3 pairs of very obtuse nearly orbicular leaflets from 3 to 5 inches long and nearly as broad, very unequal-sided at the base, on petiolules of about $\frac{1}{4}$ -inch, the divergent almost parallel veins joining far within the margin, and forming an intramarginal one, the netted veinlets numerous and somewhat prominent. Flowers pubescent. Calyx-tube ribbed, about $\frac{1}{4}$ -inch long; lobes very unequal and much imbricate, slightly longer than the tube. Petal orbicular, undulate, veined, on a claw about as long as the calyx-lobes. Stamens hairy. Ovary stipitate, flat, the edges tomentose. Pod oblong, 6 to 7 inches long and over 2 inches broad, glabrous, coriaceous, with transverse veins. Seeds dark-brown, 3 or 4, very flat, more or less covered by a mealy

substance, oblong or orbicular, about $1\frac{1}{4}$ inch diameter, the short thick funicle expanding into an oblong appressed aril.

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

NOTE.—It was from a log of this tree that No. 127 in the Woods Catalogue of the Colonial and Indian Exhibition was prepared in mistake for *Cynometra*.

At Baron von Mueller's request I sent him specimens of *A. australis*, and that gentleman, after comparing them with the specimens he had some time previously received from Queensland and determined to be identical with *A. bijuga*, A. Gray—and therefore mentioned this tree as occurring in Queensland, in his "Census of Australian Plants"—sends me word that both his and my specimens are the same species, and that he still considers the Australian tree *A. bijuga*; an opinion in which I cannot concur, for, besides other distinctions, the bark is very distinct in the two trees. J. S. Gamble, in his excellent work on the Indian timbers, page 141, says of *A. bijuga*, A. Gray: "Bark thin, grey, peeling off in fine papery scrolls." This could never be said of the Australian tree; but probably Baron Mueller never saw the bark of the Australian tree.

SUBORDER MIMOSEÆ.—TRIBE ACACIÆÆ.

ACACIA, Willd.

SERIES PUNGENTES.

A. phlebocarpa, *F. v. M.* in Journ. Linn. Soc. iii. 119; Plate in *F. v. M.* Ic. Dec. vii. (Name referring to the veined pod.) A glabrous somewhat viscid shrub of 2 to 5 feet; branches nearly terete. Phyllodia narrow-lanceolate, rigid, tapering into a pungent point, 1 to $1\frac{1}{2}$ inch long, mostly 2 to 3 lines broad, narrowed at the base, with several parallel nerves occasionally anastomosing, 1 to 3 more prominent. Stipules small. Peduncles solitary, attaining $\frac{1}{2}$ -inch when in fruit. Flowers 5-merous; calyx turbinate, lobed, half as long as the corolla. Petals striate. Pod curved, hard, rather flat, with much-thickened margins and obliquely veined between them, depressed between the seeds. Seeds rounded, compressed, oblique; funicle with the last 2 or 3 folds much dilated into a cup-shaped apparently 2-lobed aril, enclosing the base of the seed.—*Flora Austr.* ii. 325.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

A. tetragonophylla, *Meissner*, *Lehm.* Pl. Preiss., 1844; *F. v. M.* in Journ. Linn. Soc. iii. 121; Plate in *F. v. M.* Ic. Dec. iv. (Alluding to the somewhat 4-angled leaves.) A tall spreading shrub or small tree, glabrous; branches terete. Phyllodia usually clustered on the old nodes, linear-subulate, rigid, pungent-pointed, $\frac{1}{2}$ to 1 inch long or rarely more, with 1 or 2 nerves on each side. Stipules small, deciduous. Peduncles solitary or 2 together, nearly as long as the phyllodia, bearing a globular head of numerous 5-merous flowers. Sepals linear-spathulate, half as long as the corolla. Petals smooth, usually cohering to the middle. Pod much curved or twisted, flat with thickened margins, nearly 3 lines broad. Seeds longitudinal; funicle yellow, shortly flexuose and much thickened at the base, then completely encircling the seed in a single fold more or less dilated the whole length.—*Flora Austr.* ii. 330.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

SERIES PLURINERVES.

A. homalophylla, *A. Cunn.*; *Hook.*, Lond. Journ. i. 365; Plate in *F. v. M.* Ic. Dec. vi. (Referring to the even leaves, not showing the nerves.) *Gidia*, *Gydia*, or *Gidgee*; on the Cloncurry called "Wong-arrah." A small tree, glabrous or the foliage minutely hoary or pale; branchlets at first slightly angular; phyllodia lanceolate-falcate, narrow-oblong or linear, obtuse, with a small oblique point, narrowed at the base, 1 to 3 inches long, 1 to 4 lines broad, thick, very finely striate with parallel nerves, which are usually only to be seen under a lens. Peduncles in pairs or clustered on a very short common peduncle, bearing dense globular heads of numerous flowers mostly 5-merous. Sepals cuneate or spatulate, free or slightly connate, more than half as long as the corolla. Petals smooth, free. Pod linear, usually glaucous, slightly curved, 2 to 3 lines broad, longitudinally veined; valves coriaceous, convex over the seeds, contracted between them. Seeds oval-oblong, longitudinal; funicle short, much folded and dilated almost from the base into a short oblique aril.—*Flora Austr.* ii. 383.

Hab.: Cunnamulla, Cloncurry.—*E. Palmer.*

Mr. E. Palmer says that on the Cloncurry the natives prefer this species of *Acacia* for making their spears, it being very tough and free in grain.

SERIES JULIFLORÆ.

A. stipuligera, *F. v. M.* in Journ. Linn. Soc. iii. 144. (Alluding to the prominent stipules.) McDowall Stuart "Scrub Wattle." Softly tomentose or pubescent; branchlets nearly terete. Phyllodia obliquely falcate, oblong or lanceolate, shortly narrowed at each end, with a small callous or hooked point, 1 to 2 inches long, 3 to 7 lines broad, coriaceous, with 2, 3, or 4 very prominent nerves and nerve-like margins and numerous anastomosing more or less longitudinal veins, the principal nerves often scabrous with resinous exudations. Stipules brown, small, but more conspicuous than in any other of the series except *A. conspersa*. Spikes nearly sessile, solitary or in pairs, 1 to nearly 2 inches long, dense and tomentose. Flowers mostly 5-merous. Calyx half as long as the corolla, thin with spatulate lobes, readily separating into distinct sepals. Petals united to the middle, tomentose. Pod long, linear, slightly twisted, not $1\frac{1}{2}$ line broad, coriaceous, with nerve-like margins.—*Flora Austr.* ii. 393.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

A. umbellata, *A. Cunn.*; *Benth.* in *Hook.* Lond. Journ. i. 378. (The dense spikes of flowers resemble umbels.) A tall shrub, young shoots slightly hoary or silky, but soon glabrous; branchlets nearly terete. Phyllodia from oblong and scarcely falcate to obliquely oblong-rhomboidal or broadly falcate, obtuse, with a broadly callous or glandular tip, 2 to 4 inches long, $\frac{3}{4}$ to $1\frac{1}{2}$ inch broad, very coriaceous, with numerous parallel nerves or veins, 5 to 9 more prominent, and some of them confluent with the lower margin at the base, the others

closely packed, fine, and rarely anastomosing. Spikes sessile or nearly so, often clustered, rather dense, 1 to $1\frac{1}{2}$ inch long. Flowers mostly 5-merous, but sometimes 4-merous. Calyx pubescent, sinuate-toothed or shortly-lobed. Petals with prominent midribs. Pod falcate or nearly straight, almost terete, with convex and coriaceous valves. Seeds ovate, oblique, funicle short, dilated into a small aril of 2 or 3 folds under the seed.—*Flora Austr.* ii. 394.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRIBE INGEÆ.

PITHECOLOBIUM, Mart.

P. moniliferum, *Benth.* in Hook. Lond. Journ. iii. 211; *Flora Austr.* ii. 424. (So called from its necklace-like pods.) A rather small tree with dark rugged bark and dense spreading head of glossy foliage, the young growth usually pubescent, at length glabrous. Pinnæ 1 or 2 pairs, the common petiole $\frac{1}{2}$ to 1 inch, each rhachis 1 to 4 inches long; leaflets 4 to 7 pairs, obliquely obovate or oval-oblong, obtuse, very oblique at the base, shining and reticulately penniveined above, opaque and less veined underneath, the terminal ones 1 to $1\frac{1}{2}$ or nearly 2 inches long, the other smaller. Peduncles clustered in the upper arils, forming a short irregular terminal panicle. Flowers numerous in globular umbels, the pedicels about $1\frac{1}{2}$ inch long. Calyx nearly 1 line long. Corolla about 2 lines long, minutely silky-pubescent; stamens more than twice as long, the united part nearly as long as the corolla. Pod usually falcate, 3 to 6 inches long, $\frac{3}{4}$ -inch or rather more broad, very thick and hard, indehiscent but separating into closed 1-seeded articles. Seeds transverse, oblong, flat but thick, funicle very short.—*Flora Austr.*, l.c.

Hab.: Armstrong Creek, Gulf of Carpentaria.—*Dr. Thos. L. Bancroft.*

Order SAXIFRAGEÆ.

TRIBE CUNONIEÆ.

SPIRÆANTHEMUM, A. Gray.

Flowers hermaphrodite or polygamo-diœcious, calyx-tube short, free, the limb 3 to 5-parted; lobes ovate-triangular, persistent, valvate. Petals none. Stamens 4 to 5 or twice that number, inserted at the base of the calyx, nearly hypogynous, long as the calyx; filaments filiform; anthers didymous. The hypogynous glands 8 to 10, linear, alternate, with the stamens and a little more internals. Carpels in the male flowers none, in the female flowers 4 or 5, rarely 2 or 3, free, oblong-ovoid, very much attenuated, style stigmatose at the apex; ovules 1 to 5, or numerous 2-serrate. Follicles 2 to 5, twice the length of calyx, compressed, dehiscent inwards, 1 or 2-seeded. Seeds oblong, compressed. Testa winged above or on both sides, embryo sub-cylindrical,

albuminous. Shrubs or small trees with terete branchlets. Leaves opposite or verticillate, petiolate, simple, oval or oblong, entire or serrate. Stipules deciduous. Flowers numerous, disposed in axillary panicles, small, on articulate pedicels.—*B. and H.*, Gen. Pl. i. 650.

S. Davidsonii, *F. v. M.*, Austr. Journ. of Pharm., March 1887. (After Alex. Davidson, who, with Mr. Sayer, has lately collected many rare plants on the summit of Mount Bellenden-Ker, the highest mountain in tropical Australia.) A spreading-headed tree with slender stem, about 25 feet in height, the branchlets glabrescent; leaves opposite, on rather long stalks, glabrous on both sides, prominently costate-nerved beneath, and there at the axils of the nerves foveolate; panicles terminal, erect, ample. Flowers numerous, pinkish-white; peduncles and pedicels slightly downy; segments of the calyx ovate-lanceolate, glabrous, stamen exerted, twice as many as divisions of the calyx; hypogynous scales very minute. Follicles 2 to 3, considerably longer than the calyx. Seeds with a terminal appendage.—*F. v. M.*, *l.c.*

Hab.: On the highest crest of Mount Bellenden-Ker.—*Sayer and Davidson.*

Baron Mueller also notes that this species is closely allied to *S. samoense*, but that plant, so far as known, differs in its leaves, being more rounded, copiously dentate, a closer nervature, shorter stamens and styles, as well as in its greater number of carpels. From *S. vitiense*, our plant is separated by always simply opposite leaves, terminal inflorescence, longer pedicels, larger flowers, much exerted stamens and carpels, not several times longer than the calyx. *S. Macgillivrayi*, from the New Hebrides, is as yet imperfectly known, but the leaves are described as serrate and the flowers as always tetramerous. *S. Graeffei* and *S. Katakata*, from Fiji, are also allied but not identical. The New Caledonian congeners are still more distinct.

ALLIANCE MYRTALES.

Order RHIZOPHOREÆ.

BRUGUIERA, Lam.

B. parviflora, *W. et Arn.*, Prod. i. 311. (Referring to its flowers being small.) A tropical coast swamp tree of small size, glabrous except the petals. Leaves oblong or broadly lanceolate, 2 to over 3 inches long, tapering towards the petiole, which is rather slender and about $\frac{1}{2}$ -inch long. Stipules about $1\frac{1}{2}$ inch long. Flowers small, pedicellate in a once or twice trichotomous cyme. Calyx-tube prominently ribbed, tapering towards the base; lobes 8, lanceolate, erect, rigid, and scarcely over $1\frac{1}{2}$ line long. Petals shorter than the calyx-lobes, cleft, with a bristle in the sinus and with 3 or more at the apex of each of the lobes, the incurved sides hairy where they embrace the stamens. Ovary 3-celled, ribbed. Fruit sub-cylindrical, about 1 inch long, according to Hooker's Flora of British India, but not sent with the Johnstone River specimens.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft. Mackay.—H. L. Griffith.*

Some years since, Baron Mueller, in Fragm. ix. 159, pointed out the probability of this Indian coast-tree being found in Australia.

Order MYRTACEÆ.

TRIBE LEPTOSPERMEÆ.

AGONIS, DC.

A. lysicephala, *F. v. M. et Bail.*, Occ. Pap. Q. Fl. No. 1, under *Melaleuca*. (Name alluding to the fruits being free in each head.) Kennedy's Heath. A dense heath-like shrub of a few feet, the upper branchlets hoary and almost thread-like. Leaves glabrous and faintly 3-nerved, linear, obtuse, about 8 or 9 lines long and 1 to 1½ line broad, scattered except the pair close under each head of flowers. Fruiting-heads pubescent, oval or globular, from very small to 6 lines long by 4 lines diameter, usually terminal on the lower slender branchlets, with a pair of opposite leaves close under each head. Fruiting-calyces pubescent, easily separated from each other, being nearly encircled by subtending scarious bracts.

Hab.: Lloyd's Bay.—*Thos. A. Gulliver*.

MELALEUCA, Linn.

M. hakeoides, *F. v. M.*, Flora Austr. iii. 151. (Resembling a *Hakea* in foliage.) A tall shrub, the young shoots softly silky-pubescent and somewhat silvery, the older foliage glabrous. Leaves alternate, linear-subulate, terete or slightly compressed, usually sulcate, obtuse or acute, 1 to 2 inches long, the point straight. Flowers small, in dense globular or rarely ovoid terminal heads, the rhachis and calyces usually villous. Calyx-tube about ½-line long; lobes very small. Petals scarcely 1 line diameter. Staminal bundles not 2 lines long, the claws short, each with 3 to 7 filaments. Ovules few in each cell, erect; stigma slightly dilated. Fruiting-spikes very dense, globular or ovoid; the calyces truncate, about 1 line in diameter.

Hab.: Towards Cooper's Creek.

EUCALYPTUS, L'Her.

E. gracilis, *F. v. M.* (So-called from its slender growth.) Mallee. A tall shrub or small tree, with a silvery-grey smooth bark. Leaves narrow-lanceolate or oblong-linear, mostly mucronate and under 3 inches long, thick and densely dotted, the numerous very oblique veins scarcely visible. Peduncles short, axillary or the upper ones in a short terminal panicle, terete or slightly angular, each with about 4 to 8 rather small flowers. Calyx-tube obconical, usually rather narrow and prominently 4-angled, about 2 lines long, tapering into a very short pedicel or almost sessile. Operculum shorter than the calyx-tube, hemispherical, conical, or shortly acuminate. Stamens inflected and flexuose, the outer ones anantherous and nearly 3 lines long, the perfect ones shorter; anthers small, globular, the cells distinct, opening in circular or oblong pores. Ovary short. Fruit oblong or narrow-urceolate, about 3 lines long, the rim narrow, the capsule deeply sunk.—Flora Austr. iii. 211.

Hab.: Warrego.—*John Falconer*.

TRISTANIA, R. Br.

T. longivalvis, *F. v. M.* (Name referring to the long valves of fruit.) A tree of small size, the branchlets pendulous. Leaves scattered on very short petioles, obovate, attaining a length of 4 inches with a breadth of 2 inches, glabrous, finely penninerved and thinly net-veined, somewhat shining above and paler beneath. Cymes axillary or lateral, very spreading, the peduncles slender; pedicels as long as or longer than the flowers, thickened upwards. Calyx-lobes semi-orbicular, deltoid, shorter than the tube. Petals orbicular, yellow, glabrous, about 4 lines wide, hardly contracted towards the base. Stamens shorter than the petals, numerous in each fascicle, the anthers terminated by a turgid gland. Ovary half-adnate to calyx-tube; ovules numerous in each cell. Style 3 lines long, subulate, glabrous; stigma scarcely dilated. Fruit nearly 6 lines long; valves 3, deltoid-lanceolate, acute, and hard; seeds rather numerous in each cell, and closely packed, broad, much compressed, and terminating in a conspicuous membrane, nearly 3 lines long.—Extracted from Baron Mueller's description, *Sou. Sci. Rec.*, ii. (new series), April 1886.

Hab.: Prince of Wales Island, *R. Brown*; Thursday Island, *Rev. B. Scortechini*; Cape York, *B. Gulliver*.

SECTION EUTRISTANIA.

T. lactiflua, *F. v. M.*, *Fragm. i.* 82. (So called from the milky sap which flows from the young shoots when broken.) A small tree, either glabrous or the underside of the leaves and inflorescence glaucous-pubescent. Leaves alternate, often almost verticillate at the ends of the branches, ovate or broadly ovate-lanceolate, obtuse or acute, penninerved, 3 to 6 inches long, on a petiole of about 1 inch. Flowers white, small and numerous, in axillary cymes, the common peduncle often 1 to 2 inches long. Calyx-tube broad, scarcely 1 line long, with very short rounded lobes. Petals about $1\frac{1}{2}$ line diameter. Staminal bundles about as long as the petals, inflexed, the claws short and broad, each with 15 to 20 filaments. Ovary wholly adnate, concave at the top, without any central depression. Ovules reflexed.—*Flora Austr.* iii. 263.

Hab.: Gulf country.—*E. Palmer*.

XANTHOSTEMON, F. v. M.

X. pachyspermus, *F. v. M. et Bail.* (Name referring to the thick large seeds.) The Yellow-wood of the Johnstone River. A glabrous tree of medium size, the leaves alternate but often crowded at the ends of the shoots and so close as to appear opposite, petiolate, ovate-lanceolate, at times very obtuse but always much tapered towards the base, 3 to 5 inches long, penninerved, with the primary lateral veins rather distant and prominent. Flowers in slender often raceme-like panicles, 2 or 3 inches long, in the upper axils, on slender pedicels. Capsules somewhat globose, more than half-superior, $\frac{1}{2}$ to $\frac{3}{4}$ inch diameter,

opening in 3 hard valves, rugose on the back. Seeds 1 or 2 in each cell, thick, somewhat flattened, 3 or 4 lines diameter, with a thin glossy testa.

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

By mistake the wood of this tree is described under *Halfordia scleroxylon* (No. 52a) in the Catalogue of the Woods sent to the Colonial and Indian Exhibition.

TRIBE MYRTEÆ.

PSIDIUM, Linn.

(Named from the Greek name of the Pomegranate.)

Calyx urceolate or obovate; limb undivided in æstivation, separating valvately into 4 to 5 lobes when in flower. Petals 4 or 5, free. Stamens numerous. Ovary 2 or more celled, with many ovules in each cell. Berry many-seeded. Seeds with hard testa; embryo curved, radicle long, cotyledons short. Trees or shrubs with opposite entire leaves, and often large white flowers, of tropical and sub-tropical America.

P. guyava, *Linn.* The Large Guava. A small tree with tetragonal pubescent branches. Bark thin, peeling off in thin flakes. Leaves on short petioles, ovate or oblong, 3 to 6 inches long, nearly glabrous above, pubescent beneath, with the principal nerves prominent. Peduncles axillary, 1 to 3-flowered; buds ovoid in the adnate part, the free part also ovoid, but larger and more or less pointed. Petals broad. Fruit globose or pear-shaped.

Hab.: Naturalised in many Queensland scrubs; very abundant in the Mackay district.—*H. L. Griffith.*

This tree is also naturalised in India. According to Gamble, the bark is used as an astringent medicine and (or the leaves) for dyeing in Assam. The wood, which weighs from 44 lbs. to 47 lbs. per cubic foot, is used for wood-engraving and for tool-handles.

Order MELASTOMACEÆ.

TRIBE MEDINILLEÆ.

MEDINILLA, Gaud.

(Named by Gaudichaud in honour of Don José de Medinilla y Pineda, Governor of Marianne Islands.)

Branching shrubs, erect or scandent. Leaves opposite or whorled, entire, often fleshy, with 3 to 9 longitudinal nerves. Flowers in terminal panicles or lateral cymes, white or rose, with or without bracts, 4 or 5 rarely 6-merous. Calyx-tube ovoid or cylindrical, limb truncate or obscurely toothed. Stamens twice as many as petals, equal or nearly equal (rarely unequal); anthers opening at the top by one pore; connective not (or very shortly) produced at the base, but having two tubercles in front and a spur behind. Ovary inferior, 4 to 6-celled, usually glabrous at the apex; style filiform; ovules very many, placentas axile. Berry crowned by the limb of the calyx. Seeds very many, ovoid or sub-falcate, raphe often thickened and excurrent.—*C. B. Clarke* in Hooker's Flora of British India.

M. Balls-Headleyi, *F. v. M.*, Austr. Journ. of Pharm., April 1887. (Named after Dr. Walter Balls-Headley, M.A., of Melbourne.) Climbing, glabrous; leaves quaternary in whorls, ovate or elliptic-lanceolate, longitudinally 3-nerved from near the base; secondary nerves very spreading, distant; veins obliterated; calyx urceolar-campanulate, entire at the margin; vertex of ovary depressed, surrounded by an annular inflexed membrane; fruit 6-celled; placental lamina reaching far into the cavity, very densely beset with oblique, ellipsoid-clavate, smooth, shining seeds.—*F. v. M.*, *l.c.*

Hab: Bellenden-Ker along Alice's Creek.—*W. Sayer.*

This species, the first detected in Australia, is not dissimilar to *M. pterocaula*, but the branchlets are not prominently angular, the leaves are not much decurrent on the petiole, their intramarginal nerve is very faint or obliterated, and the fruiting-calyx is constricted below the orifice; the flora characteristics require to be studied, only leafy branchlets and loose over-ripe fruits being available yet. The fruits are upwards much less attenuated than those of *M. rosea*. On these aged fruits it is difficult to trace the tender bilaminated placental plates; but their attachment seems axillary, not as in *Astronia*, basal. The external resemblance, however, of our new plant to species of the last-mentioned genus is remarkable, though it reminds us also, when in a fruiting state, of several species of *Agapetes*, *Rhodamnia*, and *Rhodomyrtus*.—*F. v. M.*, *l.c.*

Order LYTHRARIÆ.

TRIBE LYTHREÆ.

SONNERATIA, Linn. f.

(Said to be after M. Sonnerat, a botanical traveller.)

Calyx thick, the tube broadly campanulate, adnate to the ovary at the base; lobes 4 to 8, lanceolate or triangular, the sinuses acute with accessory lobes or teeth. Petals 4 to 8, narrow or none. Stamens numerous, inserted at the top of the calyx-tube, inflected in the bud. Ovary enclosed in and partially adnate to the calyx-tube, depressed-globular, 10 to 15-celled; style elongated, with a small capitate stigma. Fruit large, depressed, fleshy, and indehiscent, surrounded by the persistent calyx and adnate to it at the base. Seeds immersed in pulp, angular, with a thick testa; embryo curved. Glabrous trees or shrubs. Leaves opposite, petiolate, rather thick. Flowers large, solitary or 3 together in the upper axils or at the ends of the branches.—*Flora Austr.* iii. 301.

S. acida, *Linn. f.*, DC. Prod. iii. 231. (Name referring to the acid fruit.) A small evergreen tree found bordering tidal creeks of India, Burmah, and the Archipelago. Leaves petiolate, broadly obovate or ovate, 2 to 3 inches long, the lateral almost transverse veins prominent on the underside. Calyx broad, about 1 inch long, divided to below the middle into about 6 thick valvate lobes. Petals linear, scarcely exceeding the calyx. Fruit $1\frac{1}{2}$ inch diameter.—*Flora Austr.* iii. 301.

Hab.: On an island near Howick Group, in 1855.—*Baron Mueller.* Also found at Johnstone River, where Dr. Thos. L. Bancroft states that it produces erect root-processes similar to those of *Avicennia*—only much larger. One of these aerial roots brought by him to Brisbane measured over 6 feet in height, with a diameter of

over 4 inches at the base, from which it tapered towards the top. When these curious root formations get injured at the top they frequently fork, but, so far as known, never form leaves either in this plant or *Avicenna officinalis*.

Weight of wood, 31 lbs. per cubic foot. This wood is said by Beddome to be used for models, and in Ceylon to be a good substitute for coal in steamers. The fruit is eaten in the Sundarbans.—*Gamble's Indian Timbers*.

Order ONAGRARIÆ.

ÆNOTHERA, Linn.

Æ. elata, *H.B.K.* Nov. Gen. et Sp. vi. p. 90. (*E. salicifolia*, Desf.) A tall herbaceous perennial 4 or 5 feet high, leaves mostly tufted at the base, linear-lanceolate and distantly toothed and with the stem clothed by a canescent pubescence. Petals yellow, roundish, obovate, retuse; stamens declinate, about as long as the petals. Capsule sessile, cylindrical, slightly angular, clothed by a silky villi.

Hab.: A plant of Mexico and Central America, now naturalised in Queensland.

ALLIANCE PASSIFLORALES.

Order CUCURBITACÆ.

TRIBE ZANONIÆ.

ALSOMITRA, Benth. et Hook., Gen. Pl. i. 840.

Calyx in the males rotate, 5-parted, segments oblong or oblong-lanceolate. Corolla rotate, 5-parted, segments obtuse. Stamens 5, filaments short, near together at the base; anthers small, oblong, at length recurved, 1-celled; ovary rudimentary. Female, with calyx and corolla as in the male; ovary elongate-clavate, 1-celled; styles 3 or 4, conical, fleshy, with semi-lunate stigmas; ovules very many, pendulous; placentas 3, thick, vertical, parietal. Fruit large, elongate-clavate, terete or sub-trigonus, truncate and 3-valved at the apex. Seeds very many, compressed vertical in 6 rows, much corrugated, incised or horned on the margin with a terminal membranous wing longer than the seed or none. Large climbers, tendrils simple or 2-branched. Leaves with 3 oblong entire or serrated leaflets, with usually 2 glands at the base. Flowers small, diœcious, in compound panicles with filiform branches.—Gen. Pl., l.c.

A. suberosa (sp. nov.) Stems corky. Plant diœcious. Stems climbing to a great height, the lower woody part furnished with corky flanges often 1 inch wide, the young shoots glabrous or slightly mealy. Leaves trifoliolate; leaflets $1\frac{1}{2}$ inch to 4 inches long, entire or with a few obscure teeth, central one ovate-lanceolate, lateral ones obliquely ovate with usually a more or less prominent lobe on the outer edge near the base. Petiole 1 to $1\frac{1}{2}$ inch long, petiolules $\frac{1}{4}$ to $\frac{1}{2}$ inch long, with hairy tufts in the axils. Tendrils simple or 2-branched. Male flowers crowded in pedunculate racemose panicles; pedicels about $\frac{1}{2}$ inch long, curved after the flower has fallen; calyx-teeth 5, about 1

line long, acute, nearly glabrous; corolla 5-lobed, when expanded $\frac{1}{2}$ to 1 inch diameter, white tomentose outside, pale-yellow inside. Stamens 5, 4 in connate pairs, one distinct (giving the appearance of a 3-stamened flower); filaments slender, short, hairy; anthers oblong, length of filament. Female solitary on long peduncles, flowers similar but rather larger than the males, with 5 separate sterile stamens; style thick, bearing 3 spreading flexuous stigmas. Fruit oblong-ovate, variegated, 3 to 5 inches long, with a diameter of about 2 inches, on a slender peduncle of about 3 inches. Seeds brown, thick, about $\frac{1}{2}$ -inch long, margin thick, irregularly shaped.

Hab.: Enoggera and Ithaca scrubs; fruit ripe in December.

ALLIANCE FICOIDALES.

Order FICOIDEÆ.

TRIBE AIZOIDEÆ.

Calyx free, but with a distinct turbinate tube, bearing the stamens at or below the top.

AIZOON, Linn.

(The name is from the Greek, meaning always alive.)

Calyx free, deeply 4 or 5-lobed. Petals none. Stamens indefinite, usually about 20, inserted at the top of the calyx-tube, free, but more or less in clusters alternating with the lobes. Ovary superior, enclosed in the calyx-tube, 5-celled or in the Australian species 4-celled, with 2 or more ovules in each cell. Styles as many as cells, filiform, stigmatic along the inner side; capsule surrounded by the persistent calyx, depressed, opening loculicidally in as many valves as cells, or in the Australian species the valves split septically. Herbs or undershrubs. Leaves alternate or rarely opposite, without stipules. Flower solitary or divaricately cymose.—Flora Austr. iii. 327.

A. quadrifidum, *F. v. M.*, *Fragm.* ii. 148; *Flora Austr.* iii. 327; *Fragm.* vii. 129 and x. 83. (So named from the four divisions of capsule.) A rigid shrub, probably small, with divaricate opposite or dichotomous branches covered as well as the leaves with a dense but close almost scurfy tomentum. Leaves opposite, narrow-linear, obtuse, rather thick and soft, from $\frac{1}{2}$ to $1\frac{1}{2}$ inch long. Flowers terminal in the forks, the pedicels up to 1 inch long. Calyx tomentose; tube short, broadly turbinate, the ribs not prominent; lobes 4 or at times 5, valvate, ovate-acuminate, from 3 to 9. Stamens numerous, densely crowded opposite the sinus of the calyx, more distant opposite the lobes; filaments slender, more or less covered like the ovary with transparent vesicular cells, about as long as the calyx-lobes. Ovary truncate on the top, 4-angled, 4-celled, with 4 styles stigmatic along their inner side. Ovules numerous. Capsule almost free, obpyramidal-truncate, septically dehiscent in 4 truncate valves, loculicidally divided almost to the base.—*F. v. M.*, *l.c.*

Hab.: Queensland Border, Cooper's Creek.—*J. Ivory.*

A. zygophylloides, *F. v. M.*, *Fragm.* vii. 129. (Named from its supposed resemblance to a *Zygophyllum*.) The young branches densely clothed with papulose scales. Leaves lanceolate-ovate, attaining a width of 5 lines, opposite, glabrescent. Flowers solitary, calyx deeply 4-fid, lobes lanceolate-oblong, yellow on the inside, not at all acuminate, almost glabrous. Stamens very numerous; styles 4; ovary 4-celled; ovules numerous. This plant, as seen from the fragmentary specimens examined, seems more a distinct species than a form of *A. quadrifidum*, from which it is mostly distinguished by being more glabrous, and by the form of the leaves and lobes of the calyx.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*

GUNNIA, *F. v. M.*

Calyx free, deeply divided into 4 lobes, valvate in the bud; petals none; stamens 4, inserted on the calyx-tube and alternating with its lobes; ovary superior, enclosed in the calyx, 4-celled, with several ovules in each cell; styles 4, filiform, stigmatic along the inner side. Capsule enclosed in the persistent calyx, opening loculicidally, each valve splitting septically. Seeds numerous, small; testa thin and smooth; embryo curved round a mealy albumen. Small diffuse annuals. Leaves opposite. Flowers terminal or in the forks, nearly sessile.—*Flora Austr.* iii. 327.

G. septifraga, *F. v. M.*, *Rep. Babb. Exped.* 9; *Flora Austr.* iii. 327. Branches slender. Leaves linear. Flowers terminal in the forks. Calyx-lobes acute, about $1\frac{1}{2}$ line long when in flower, 2 lines long when in fruit.—*L.c.*

Hab.: Queensland border.—*F. v. M.*

ALLIANCE UMBELLALES.

Order UMBELLIFERÆ.

TRIBE HYDROCOTYLEÆ.

HYDROCOTYLE, Linn.

H. javanica, *Thunb.*; *DC. Prod.* iv. 67. (Named from the Java plant.) Glabrous, perennial, sarmentose with erect branching shoots over 6 inches high. Leaves suborbicular, membranaceous, alternate, 9-lobed, divided to the petiole; lobes divided to about one-fourth down, crenate-serrate, $1\frac{1}{2}$ to 2 inches broad; petioles erect, longer than the breadth of the leaves; stipules rather wide, entire; peduncle shorter than the petioles, slender, erect, solitary, axillary; heads globular, $\frac{1}{5}$ -inch diameter, bearing from 10 to 20 flowers on very short slender pedicels. Bracts small. Fruit (dotted with purple, *DC.*) with acute primary but without secondary ridges $\frac{1}{15}$ inch broad, emarginate or subcordate at the base; style shorter than the fruit.—*W. P. Hiern* in *Oliver's Flora of Tropical Africa*.

Hab.: Queensland.—*F. v. M.*, *Third Supp. Cens. Austr. Pl.*

Order ARALIACEÆ.

TRIBE ARALIEÆ.

ARALIA, Linn.

Calyx-margin truncate or 5-toothed; petals 5, ovate, imbricate in the bud; stamens 5; ovary 2 to 5-celled; styles 2 to 5, free or shortly connate at the base (at least in the seed-producing flowers). Fruit 4 to 5-celled, 4 to 5-angular, or subglobose 2 to 3-celled. Albumen uniform. Herbs, shrubs, or small trees, glabrous, hairy, or prickly. Leaves alternate or whorled, digitate-pinnate or compound-pinnate; leaflets serrate or nearly entire; stipules not prominent. Umbels solitary or in racemes or panicles, rarely in compound umbels; pedicels jointed close under the flower or not. Flowers often polygamomœcious.—*Hooker's Flora of British India.*

A. Macdowalli, *F. v. M.* (After A. Macdowall.) A small glabrous tree with slender stem and long simply pinnate leaves; the leaflets numerous, 6 to 8 inches long and 2 inches or more broad, the margins entire, pointed at the apex, blunt at the base, both sides dark-green. Umbels solitary or 2 or 3 together, spreading, with a linear-lanceolate bract at the base, the pedunculate umbels arranged on an elongated general flower-stalk. Flowers seceding from the persistent stalklets. Calyces nearly 2 lines long, the lobes occupying about one-fourth of the whole length. Petals nearly ovate, prominently lined inside along the middle. Anthers almost sessile, oblong; styles 2, erect, rather thick, free; stigmas acute, convergent. The ripe fruit said to be blue.—Extracted from Baron Mueller's notice in the Southern Science Record for April, 1886, where the plant is noticed under *Panax*, but from further specimens collected by Mr. Sayer, Baron Mueller finds the plant a true *Aralia*.

Hab.: Russell River.—*W. Hill.* This species approaches *P. Murrayi*.—*F. v. M., l.c.*

PENTAPANAX, Seem.

(So named from the parts of flowers being in fives.)

Calyx-teeth 5, petals 5, imbricated in bud; stamens 5; ovary 5 (or 4) celled; styles 5 or 4, combined to the summit or free for more than half their length. Fruit 5 or 4-celled and angled. Albumen uniform. Trees or large scandent shrubs. Leaves simply pinnate, with 5 to 9 leaflets, or digitate with 3 to 5 leaflets, glabrous. Leaflets entire, crenate, or serrate. Flowers hermaphrodite or polygamous, in compound racemes or umbelled; pedicels jointed close under the flowers.—*Flora of British India* ii. 723.

P. Willmottii, *F. v. M.*, *Austr. Journ. of Pharm.*, April 1887. (Named after Dr. J. Willmott, of Melbourne.) A tree about 30 feet high. Branchlets robust, the leaves crowded towards the summits, pinnate, mostly 5 or sometimes 3-foliolate; petioles slender, about 4 inches long. Stipules about $\frac{1}{4}$ -inch long, rather

narrow, adnate except the summit; petiolules slender, rather elongated to $1\frac{1}{2}$ inch long; leaflets in distant pairs, dark-green on both sides, chartaceous, to 4 inches long, 1 inch wide, elliptic-lanceolate, acuminate, entire, somewhat crisped, shining, blunt at the base, subtle-veined. Umbels almost cymosely arranged, seldom exceeding 4 inches in length; the whole inflorescence much surpassed by the nearest leaves. Flowers not seen. Pedicels somewhat longer than the fruiting-calyx, limb of the latter undulated and bluntly 5-toothed. Styles very short, undivided; disk depressed. Fruit campanulate-semiovalate, 5-angled, 5-seeded, not distinctly jointed on the pedicel, about $\frac{1}{4}$ -inch long, their longitudinal angles blunt; pericarp somewhat succulent; each endocarp pale-brownish, dimidiate-ovate, about $\frac{1}{8}$ -inch long, narrowed at the inner angle, rather rounded-blunt at the back, somewhat wrinkled at the sides; testa membranous, not intruding. Albumen equable, but slightly glandular; embryo minute.—*F. v. M., l.c.*

Hab.: Mount Bellenden-Ker, at an elevation of about 5,000 feet.—*Sayer and Davidson.*

So far as the carpologic characteristics are concerned, this plant is clearly referable to the genus *Pentapanax*, and differs from its ally *P. Leschenaultii* in smaller not serrulated leaflets on longer stalklets, in its umbels containing far less flowers, and in the less indented calyx-limb. Perhaps, also, the structure of the flowers and colour of fruit may prove different.—*F. v. M., l.c.*

SUBCLASS GAMOPETALÆ OR MONOPETALÆ.—SERIES
INFERÆ.—ALLIANCE RUBIALES.

Order RUBIACEÆ.

TRIBE PSYCHOTRIÆ.

MYRMECODIA.

M. Beccarii, *Hook.*, Bot. Mag. 6883. (After Signor Beccari.) Tuber unribbed, but lobed and covered with small spines which are short and simple; branches swollen with knots; leaves oblanceolate or oblong-oblanceolate, subacute, fleshy, and narrowing into short, stout, nearly half-terete petioles; flowers springing from little sockets situate on the branches; stipules very short and uniting to form 2-fid very thin fugacious membranes; bracts wanting; annular limb representing the calyx glabrous; corolla with a cylindrical tube exceeding in length the ovate swollen lobes; stamens small, having their filaments and short anthers equally long; ovary 4-celled; fruit cylindrical-oblong, rounded at the apex; pyrenes 4.

Hab.: Gulf of Carpentaria.—*Hook., l.c.*

The above species is probably the one mentioned in the Synopsis of the Queensland Flora, p. 231, as *M. Armatum*, but the species of this and a few allied genera cannot be fully determined without consulting Signor Beccari's monograph "Piante ospitatrice." *M. Antoinii*, Becc., and *M. Muelleri*, Becc., are also given as North Queensland species.

ALLIANCE ASTERALES.

Order COMPOSITÆ.

TRIBE ASTEROIDEÆ.

MINURIA, DC.

M. suædifolia, *F. v. M.* in Flora Austr. iii. 499; tab. 35 Vict. Pl., under *Kippistia*. A small bushy shrub or undershrub, under 1 foot and often under 6 inches high, glabrous and glaucous. Leaves narrow-linear, nearly terete, under $\frac{1}{2}$ -inch long, mostly recurved at the end. Flower-heads small, pedunculate. Involucre hemispherical, 2 to 3 lines diameter, the bracts oblong-linear, ciliolate in few rows. Ray-florets numerous, very little exceeding the involucre; disk-florets numerous, as long as the involucre. Achenes of the ray flat, with a pappus of rather numerous bristles, the outer ones free, the inner ones more or less connate; achenes of the disk abortive, the pappus united in a more or less toothed scarious tube.—*L.c.*

Hab.: Queensland border.—*F. v. M.*

CALOTIS, R. Br.

SECTION CHEIROLOMA.

C. hispidula, *F. v. M.* in Trans. Vict. Inst. 130, 1855; Flora Austr. iii. 506. A hispid annual, with procumbent or rarely erect branching stems of 3 to 6 inches. Lower and radical leaves petiolate, obovate-spathulate or cuneate, upper ones oblong-lanceolate, toothed towards the end or entire. Peduncle short. Involucral bracts ovate-lanceolate or oblong, hispid or almost muricate. Ray-florets few and very small, the ligula scarcely exceeding the pappus; disk-florets numerous, also small and all fertile. Fruiting-heads 3 to 4 lines diameter. Achenes quite similar in the ray and in the disk, flattened, with thick obtuse margins, slightly hispid; pappus of about 4 to 6 rigid divaricate more or less barbed unequal bristles, alternating with as many much shorter bristles or scales either subulate and entire or palmately 3-fid or sometimes spathulate, and all hispid.—*Cheiroloma hispidulum*, *F. v. M.* in Linnæa xxv. 401; Flora Austr., *l.c.*

Hab.: Near Dalby.—*H. Tryon*. Near Brisbane.—*Dr. Jos. Lautirer*.

BACCHARIS, Linn.

(The Ploughman's Spikenard. The name is said to be derived from one of the species having been dedicated by the Greeks to Bacchus.)

Heads many-flowered, dicecious; florets all tubular and similar. Involucre somewhat hemispherical or oblong, the bracts imbricate in several rows. Receptacle naked or rarely chaffy. Corolla in the sterile florets somewhat dilated and 5 clefts at the summit; in the fertile filiform, somewhat truncate. Anthers exerted in the sterile florets, entirely absent in the fertile. Style in the fertile florets exerted

with glabrous branches, in the sterile florets tipped with an ovate hairy appendage often more or less abortive. Achenes ribbed or grooved. Pappus capillary: of the sterile plant in a single series, often tortuous or somewhat plumose-penicillate, about the length of the involucre; of the fertile plant in one or several series, not thickened or penicillate at the apex, usually much longer than the involucre. Shrubs or undershrubs. Leaves mostly alternate, entire or toothed, often decurrent on the branches. Florets mostly white, rarely yellow or purple. All belonging to America.

B. halimifolia, Linn. (Sea-Purslane-leaved.) Groundsel-tree. A bushy shrub of from 6 to 12 feet, glabrous or somewhat scurfy-glaucous, the branches angular. Leaves 1 to 2½ inches long, obovate, coarsely angulate-toothed above, cuneate at the base and somewhat attenuate into a petiole, the uppermost lanceolate and entire. Flower-heads of the sterile plant subglobose, pedicellated solitary or aggregated; the fertile, somewhat loosely paniced, ovate-oblong bracts of the sterile involucre ovate; the inner ones elongated in the fertile. Pappus of the fertile florets very long, white, and silky.

This American shrub, which has been introduced for garden culture, is becoming naturalised about the towns, and is likely before long to become a pest. The genus contains about 250 species, several of which are supposed to possess medicinal properties in their native countries; others are considered as good fodder for horses. *B. cordifolius*, however—the “Mio-mio” of the Argentine Republic, Banda Oriental, and Uruguay—is said to be poisonous to sheep.

TRIBE INULOIDEÆ.

PTERIGERON, DC.

P. liatroides, Benth., Flora Austr. iii. 532. Erect, rigid, and scabrous-pubescent, hirsute or at length nearly glabrous, attaining sometimes 1½ foot, but often flowering when a few inches high. Lower leaves obovate, narrowed into a rather long petiole, the upper ones oblong-cuneate or linear, obtuse, sinuate-toothed or nearly entire, not decurrent. Flower-heads large, not numerous, in a terminal corymb. Involucre hemispherical, nearly 1 inch diameter, the bracts broadly lanceolate, acute or acuminate, the inner ones 7 to 8 lines long and coloured at the apex. Ray-floret ligulate, exceeding the involucre, the ligula fully ½-line broad and 2 lines long, usually 3-lobed. Style of the disk-florets 2-lobed. Achenes silky villous. Pappus-bristles not numerous, almost plumose.—*Benth., l.c.*

Hab: Queensland border.—*F. v. M.*

TRIBE HELIANTHOIDEÆ.

COREOPSIS, Linn.

(Said to have received its name from the supposed resemblance of the achenes to a bug.)

Heads heterogamous, radiate; ray-florets 1-seriate, conspicuous, female or neuter. Involucre duplex, outer bracts more or less

herbaceous, linear or linear-lanceolate; inner membranous, subequal, 1-2-seriate, broader than the outer; bracts sometimes appearing more or less connate at base. Scales of receptacle plane or slightly concave, membranous, striate. Anther-base entire or bidentate. Style-branches truncate or with an abrupt subulate appendix. Achenes usually much compressed, linear-oblong or obovate; margins sometimes winged, apex with 2 filiform subulate or broad-based aristæ, usually barbellate with setæ directed upwards. Herbs or undershrubs more or less, with opposite often pinnatisect or deeply divided simple leaves, and pedunculate, solitary, or variously cymose, yellow, conspicuous flower-heads.—Fl. Trop. Africa.

C. tinctoria, *Nutt.* Annual, stems branching, 1 to 3 feet high, glabrous. Leaves pinnately divided into narrow-linear segments. Peduncles terminal ray-florets, rays toothed at the end. Achenes oblong, minutely tuberculate or smooth. A well-known showy garden annual, now become naturalised about Taylor's Range.

Hab.: Introduced from North America.

TRIBE CICHORIACEÆ.

LACTUCA, Linn.

(The name is derived from *lac*, milk; referring to its milky juice.)

Heads of numerous yellow florets, all ligulate and fertile. Involucre campanulate; scales herbaceous, 2 to 3-serial, imbricate. Receptacle flat, naked. Anthers sagittate at the base, not tailed. Style-branches terete. Achenes broad, glabrous, flattened, with a distinct beak and a long pappus of copious, soft, fine, simple hairs. Herbs, with milky juice, alternate often compound leaves, and numerous heads in loose panicles.

L. scariola, *Linn.* Prickly Lettuce. An erect stiff annual or biennial, 2 to 5 feet high, of a more or less glaucous green, with short but spreading branches, and quite glabrous except a few stiff bristles or small prickles on the edges or on the midrib of the leaves. Leaves more or less spreading, varying from lanceolate to broadly oblong, either bordered only with small teeth or with a few short lobes or coarse teeth usually curved downwards, or deeply pinnatifid with narrow lobes; the upper ones narrow, more entire, and clasping the stem with pointed auricles. Flower-heads in a more or less leafy panicle, sometimes long and narrow, sometimes more branched and spreading. Involucres 4 or 5 lines long, of a few imbricate bracts, the short, broad, outer ones passing gradually into the inner long narrow ones. Florets 6 to 10 or 12, of a pale-yellow. Achenes much flattened, obovate-oblong, striated, varying in colour from white to nearly black, with a slender beak about the length of the achene.—*Benth.* in British Flora i. 485.

Hab.: This European weed has become naturalised in cultivated fields, and at the Rosewood is considered injurious to stock. The milky juice when inspissated has been used as a substitute for opium.—*Lindley.*

ALLIANCE CAMPANALES.

Order STYLIDIEÆ.

STYLIDIUM, Swartz.

SERIES LINEARES.

S. lineare, Swartz, DC. Prod. vii. 333; Flora Austr. iv., ii. (Name alluding to the linear form of leaves.) Glabrous except the inflorescence, like *S. graminifolium*, and resembling that species in its linear leaves, dilated towards the base, racemose inflorescence and undivided calyx-lips, but it is a smaller species, the leaves very narrow, acute, usually incurved, not exceeding 2 inches, and often much shorter. Scapes slender, the raceme 2 to 4 inches long, and much looser than in *S. graminifolium*. Flowers smaller, on pedicels of 1 to 2 lines, the calyx-tube linear, and the ripe capsule much narrower than in that species.—*Benth.* in Flora Austr., l.c.

Hab.: Fraser's Island, *W. Hill*, according to Baron Mueller in Chemist and Druggist of Australasia, Jan. 1888.

S. Floodii, *F. v. M.*, Fragm. i. 149. A slender annual, sometimes shortly proliferous at the base. Leaves all radical or in a second tuft at the end of the short stem, very narrow-linear, almost filiform, obtuse or acute, $\frac{1}{2}$ to 1 inch long, glabrous or sprinkled with a few hairs. Scapes or peduncles usually several, leafless, slender, 3 to 6 inches high, usually sprinkled with a few hairs at the base, the inflorescence glandular, pubescent. Flowers very small, in loose more or less corymbose panicles, all pedicellate. Calyx a little more than 1 line long, the lobes short and obtuse, free or the 2 lower ones united. Corolla pink, the tube longer than the calyx-lobes, the lobes unequal, the throat with or without small appendages, the labellum without any. Capsule ovoid, 1 to $1\frac{1}{2}$ line long.—Flora Austr. iv. 14.

Hab.: Sources of Cape River—*Bowman*, l.c.; Musgrave Electric Telegraph Station—*T. Barclay-Millar*—whose specimens show taller plants with often dichotomous branched inflorescence.

Order GOODENOVIEÆ.

GOODENIA, Sm.

SERIES FOLIOSÆ.

G. calcarata, *F. v. M.*, Fragm. vi. 14. An erect, rather stout, glabrous, and often glaucous, annual of $\frac{1}{2}$ to 1 foot, the stem very angular. Leaves deeply pinnatifid, with ovate-oblong or lanceolate deeply-toothed segments, the terminal one sometimes large and the others small or all more nearly of a size; the upper floral leaves reduced to small bracts. Peduncles solitary in the axils, forming a terminal raceme. Bracteoles none or very minute under the flowers. Calyx and corolla nearly those of *G. grandiflora*, but the hollow protuberance of the adnate part produced into a small spur. Capsule ovate, 4 to 5 lines long. Seeds of *G. grandiflora*.—Flora Austr. iv. 69.

Hab.: Mueller River.—*F. v. M.* in Vict. Nat., Feb. 1887.

G. Chambersii, *F. v. M.*, *Fragm.* i. 204; *Flora Austr.* iv. 70. (After James Chambers, of South Australia.) A small shrub or undershrub, slightly velvety, branches or stems angular. Leaves rhomboid-orbicular, coarsely toothed, $\frac{3}{4}$ to 1 inch in diameter on slender petioles of about the same length or a little longer. Flowers axillary, solitary; peduncles angular, about as long as the petioles, with two narrow bracteoles near the base; calyx-lobes linear-lanceolate, corolla yellow faintly streaked with purple, pubescent in the lower part, about $\frac{3}{4}$ -inch long, the lobes deeply divided, the adnate part of the tube with a very prominent saccate protuberance. Capsule oblong, under $\frac{1}{2}$ -inch long. Seeds flat with nerve-like margin, but not winged.

Hab.: Lawn Hill, on sandstone ranges.—*Frank Hugh Hann.*

SECTION AMPHICHILA.

G. lamprosperma, *F. v. M.*, *Fragm.* i. 116; *Flora Austr.* iv. 79. This species is nearly allied to *G. gracilis*, but is more rigid and branching. It attains about $1\frac{1}{2}$ foot in height, and has but few stem leaves. The radical leaves are linear or lanceolate, rather thick, and prominently veined, broadish and occasionally toothed. Flowers smaller, but resembling those of *G. gracilis*, as do also the capsule and seed.

Hab.: Norman and Gilbert Rivers.—*T. Gulliver.* *F. v. M.* in *Vict. Nat.*, May 1888.

SERIES HETEROMERÆ.—ALLIANCE ERICALES.

Order VACCINIACEÆ.

Calyx-tube ovoid, adnate to the ovary; limb 5-fid, usually persistent. Corolla tubular, 5-toothed, or shortly campanulate with 5 long segments, deciduous. Stamens 10, epigynous, free; anthers opening by apical pores, often produced upwards into 2 tubes opening by slits from the apex. Ovary inferior, 5-celled or falsely 10-celled. Style cylindrical, stigma simple; ovules many (rarely few) at the inner angle of each cell. Fruit a berry, rarely dry, 5 or falsely 10-celled. Seeds many, or several (rarely 1) in each cell, small, compressed, albuminous; radicle next the hilum. Shrubs or small trees; sometimes epiphytes with the stems greatly thickened at the base. Leaves alternate or falsely whorled, entire or serrate. Stipules none. Flowers racemose or axillary and solitary, pedicels 1-bracteate and often 2-bracteolate, often thickened and articulate beneath the ovary.—*Clarke* in *Indian Flora*.

TRIBE THIBAUDIÆ.

AGAPETES, D. Don.

(From *agapetos*, beloved—in reference to the plants being showy.)

Calyx-tube globose; limb 5-fid or 5-partite, persistent. Corolla tubular or campanulate, shortly or deeply 5-lobed, red, often with transverse marks, or the lobes greenish-white. Stamens 10, filaments usually short; anthers elliptic, produced upwards in 2 long beaks

opening by apical pores or slits, often spurred behind. Ovary 5-celled or spuriously 10-celled; style cylindric, stigma capitate; ovules very many. Berry globose, succulent or nearly dry, 5-celled or spuriously 10-celled, often opening by 10 pores round the disk within the calyx-teeth. Seeds very many, ellipsoid, outer coat very lax. Shrubs, often epiphytic; stem often greatly thickened at the base. Leaves alternate, sometimes falsely whorled, from linear to elliptic, entire or toothed, sessile or shortly petiolated, often with glands at the apex of the petiole, usually coriaceous. Flowers axillary, corymbose fascicled or solitary; pedicel often thickened or articulate under the ovary; bracts small.—Flora of British India iii. 443.

A. Meiniana, *F. v. M.*, Vict. Nat., Mar. 1887. (After Dr. G. A. Mein, of Victoria.) Tall, somewhat climbing, glabrous throughout. Leaves rather large, scattered, on short stalks, coriaceous, from almost lanceolate to roundish-ovate, acuminate, generally rounded at the base, not denticulate, shining on both sides; dark-green above, pale-green beneath and there dotted with minute scattered glands, strongly 5-nerved from near the base, the veins amply reticulated and partly prominent. Pedicels axillary or lateral, 3 or 2 together or solitary, with 2 minute deltoid bracteoles near the base. Calyx campanular, semi-ovate, separable by articulation from the pedicel, almost truncate, only minutely denticulate. Corolla several times longer than the calyx, dark-red, broadly tubular, terminated by 5 very short almost deltoid lobes. Stamens 10, enclosed; filaments glabrous, hardly half as long as the anthers, flat, semi-connate in pairs and with their dilated portion adherent to the base of the corolla. Anthers erect, free, fixed above their base, fully half as long as the corolla, cylindric-linear, without any appendages, their lower portion subtile-rough and at the blunt base somewhat bent forward, their upper portion paler, smooth, bifid, each division pointed and opening with a longitudinal fissure. Style filiform, glabrous; stigma minute, undivided. Ovary exceeded by the limb of the calyx, depressed and glabrous at the summit. Fruit almost campanulate in outline, rather hard, 5-celled, placentas turgid. Seeds rhomboid or clavate-ovate, pale-brownish, shining, reticulate.—*F. v. M.*, *l.c.*

Hab.: Collected by Messrs. Sayer and Davidson on the summit of Mount Bellenden-Ker.

NOTE.—Baron Mueller says this new species bears some resemblance to *A. vitiensis*, but the leaves are usually broader and more prominently veined, the corolla is less dilated towards the upper end, and its lobes are considerably smaller, while the anthers are less curved at the base and open with longer slits. It differs from the Himalayan *A. setigera* in the lobeless calyx. It approaches the Papuan species, *A. Forbesii*, but that species has a semi-globular calyx and longer-lobed corolla; the stamens and fruits are also different.—*F. v. M.*, *l.c.*

Order ERICACEÆ.

Calyx free (or in *Diplycosia* sometimes much adnate to the ovary), 5 (rarely 4 to 6) fid or 5-partite. Corolla hypogynous, often campanulate or urceolate, sometimes deeply lobed or (in *Pyrola*) petals free;

lobes 5 to 20. Stamens 10, vary 5, 8, or 20, hypogynous or slightly attached to the base of the corolla (in *Diplycosia* sometimes epigynous); filaments free; anthers oblong, opening by pores or slits at the apex (in *Diplache* by longitudinal slits), the cells often produced upwards into tubes, sometimes dorsally spurred. Ovary 5 or 4 to 16-celled; style cylindric; stigma simple or shortly lobed; ovules many in the inner angles of the cells, or placenta often pendulous from the upper angle. Fruit capsular, loculicidally or septicidally 5-valved (in *Gaultheria* and *Diplycosia* enclosed by the enlarged succulent calyx), appearing baccate. Seeds many (rarely few) in each cell, albuminous; testa close or loose or produced. Shrubs, trees, or perennial herbs. Leaves alternate or apparently whorled, entire or serrate, no stipules. Flowers racemed, clustered or solitary, radicles bracteate and often 2-bracteolate. Flowers regular (or in *Rhododendron*, sometimes irregular, sometimes dimorphic).—*Clarke* in Indian Flora.

TRIBE RHODOREÆ.

RHODODENDRON, Linn.

(Rose-tree, in reference to the terminal bunches of often red-coloured flowers.)

Calyx 5-lobed, sometimes small or obsolete, rarely saucer-shaped, persistent. Corolla campanulate, widely funnel-shaped or cylindric, tube long or short, lobes 5 to 10. Stamens 5 to 18, usually 10. Anthers oblong, dehiscing by terminal pores. Ovary 5 to 20-celled. Style long or short, stigma capitate, ovules very many in each cell. Capsule short, woody, or elongate, thinner, 4 to 20-celled, septicidally 4 to 20-valved from the apex, valves breaking away from the placentas; seeds very many, ellipsoid, albuminous; testa close or loose, often shortly crested, or tailed at one or both ends. Trees or shrubs, sometimes very small, often scaly or aromatic. Leaves alternate, often clustered towards the end of the branches, rarely subopposite or falsely whorled, entire, coriaceous. Flowers fascicled or subcorymbose, terminal, rarely solitary or axillary; bracts broad, generally caducous; bracteoles linear.—Flora of British India iii. 462.

R. Lochæ, *F. v. M.*, Vict. Nat., Mar. 1887. (This, the first species of the genus met with in Australia, is named after Lady Loch, the wife of the present Governor of Victoria.) Arborescent, somewhat scandent. Leaves persistent, mostly whorled, some scattered, conspicuously stalked, flat, nearly ovate, rather blunt, glabrous, well veined, minutely scaly-dotted beneath. Flowers rather large in terminal umbelliform fascicles on very conspicuous stalklets. Bracts cuneate or spatulate-ovate, glabrescent. Calyx rudimentary, oblique-patellar, or sometimes variously short-lobed. Corolla bright-red, glabrous but scaly-dotted outside, slightly hairy inside, the lower portion broadly cylindrical, the upper portion bluntly 5-lobed and conspicuously veined. Stamens 10, slightly emerging from the corolla-tube; filaments short-hairy towards the base. Anthers very small, ellipsoid-cylindrical.

Style nearly as long as the filaments, short-hairy to about the middle; indusium truncate, stigma slightly lobed. Capsule narrow ellipsoid, about as long as the stalklet, or longer, short-hairy, 5-celled. Seeds conspicuously appendiculated.—*F. v. M., l.c.*

Hab.: Collected by *W. Sayer* and *A. Davidson* on the summit of Mount Bellenden-Ker, at an elevation of about 5,000 feet.

NOTE.—This beautiful and singularly local plant, which attains a height of 20 feet, is cognate to *R. javanicum*, from which it differs in longer petioles, blunter leaves, smooth pedicels, somewhat smaller flowers, as well as more hairy style and capsule. In some respects this Australian species approaches also *R. Griffithianum*, but the disposition and colour of the flowers are very different. From *R. Celebicum* it is easily distinguished by broader not acute leaves, with not concealed veins, by not scaly pedicels, by mostly not narrow bracts, by larger lobes of the corolla, and not scaly ovary. From *R. Arfakianum* it is separated already by glabrous pedicels, by the lobes of the corolla being shorter than the tube and by shorter stamens.—*F. v. M., l.c.*

Order EPACRIDÆE.

TRIBE EPACREÆ.

DRACOPHYLLUM, Labill.

(So named from the foliage resembling that of some species of *Dracæna*.)

Corolla-tube cylindrical, oblong or almost campanulate; lobes 5, spreading, imbricate in the bud. Stamens hypogynous or the filaments more or less adnate to the corolla-tube; anthers included in the tube, attached at or above the middle, entire or 2-lobed. Hypogynous disk of 5 distinct scales. Ovary 5-celled, with several ovules in each cell, attached to a placenta suspended from an erect or recurved stipes proceeding from the axis. Style inserted in a shallow or deep and tubular depression of the ovary; stigma small or larger and shortly 5-lobed. Shrubs or small trees, having then a monocotyledonous aspect. Leaves crowded at the ends of the branches or imbricate along them, very concave above the sheathing bases, which fall off with the leaf, leaving annular scars on the denuded stem or branches. Flowers in terminal compound racemes or panicles, or simple spikes or heads.—*Flora Austr. iv. 261.*

D. Sayeri, *F. v. M.*, *Austr. Journ. of Pharm.*, Mar. 1887. (Named after *W. Sayer*, who, with *Mr. Davidson*, recently ascended Mount Bellenden-Ker and collected this and many other new plants.) Stems much elongated, reaching the height of some 20 to 25 feet, the branches intricately spreading, often horizontal, rather elastic, thus forming an almost impenetrable mass. Leaves crowded at and near the upper end of the branchlets, attaining a length of $1\frac{1}{2}$ foot and $\frac{3}{4}$ -inch in width in the lower part, broadly linear, gradually attenuated upwards and much narrowed towards the apex, clasping at the base through longitudinal incurvature, somewhat concave, smooth also along the margin, the floral leaves abbreviated, early deciduous. Panicle terminal, short-stalked, attaining 8 inches in length and seldom more than $1\frac{1}{2}$ inch in width. Bracts narrow, fugacious, under $\frac{1}{2}$ -inch in length, attenuated towards both ends; peduncles and pedicels shortly-downy,

the latter conspicuous, and scattered or somewhat fascicled. Flowers very numerous, occasionally tetramerous. Sepals lanceolate-ovate, acute, glabrous. Corolla about 4 lines long or 3 or 4 times as long as the calyx, quite white or rosy, divided to near the middle into almost semi-lanceolate bluntish lobes. Stamens emerging, inserted near the summit of the corolla-tube; filaments broadish, hardly longer than the anthers. Style of a much less length than the corolla; hypogynous disk shortly divided into semi-orbicular somewhat truncate lobes. Fruit as long as the calyx or slightly longer, broader than long, depressed; placentas conspicuously stalked, deeply pendent. Seed almost oblique-ovate, testa subtle-reticulate.—*F. v. M., l.c.*

Hab.: Found on Mount Bellenden-Ker, at an elevation of between 4,500 and 5,200 feet, by *W. Sayer*.

SERIES BICARPELLATÆ.—ALLIANCE GENTIANALES.

Order ASCLEPIADEÆ.

TRIBE MARSDENIÆ.

DISCHIDIA, R. Br.

D. ovata, *Benth.* in *Hook. Lond. Journ. of Bot.* 1843 p. 226. An epiphytical plant, the stems creeping and rooting at the nodes. Leaves on erect slender petioles of about 3 lines, fleshy and broadly ovate, apiculate, about 1 inch long, $\frac{3}{4}$ -inch broad, glabrous, the 3 or 5 primary veins marked on the upper surface by light-coloured lines, giving to the leaf a variegated appearance. Peduncles axillary, about $\frac{1}{2}$ -inch long with a thickened short fork at the end bearing from 5 to 8 flowers. Calyx-segments minute. Corolla about 3 lines long, the tube much inflated, stained with red; lobes short, erect, thick, and dotted with white, glabrous except for the dense ring of erect silky white hairs in the throat, immediately at the base of the corolla-lobes; segments of the corona deeply bifid and incurved.

I have drawn up this description of the Queensland form. *Bentham, l.c.*, describes the leaves as much larger, and does not note the variegation.

Baron Mueller, who has kindly compared for me this fresh Queensland species with those of New Guinea, considers it as belonging to *D. ovata*. He says that the New Guinea form of this plant is very variable as to the breadth of its leaves, and that it has a wide range there, and does not appear to produce ascidia readily, judging from his New Guinea specimens.

ALLIANCE POLEMONIALES.

Order CONVULVULACEÆ.

TRIBE CONVOLVULÆ.

ARGYREIA, *Lour. Fl.* 134.

(So named from the silvery covering of plants.)

Scandent rarely sub-erect shrubs. Leaves from cordate-ovate to narrow-lanceolate, silky-hirsute or pubescent. Cymes sessile or pedunculate, capitate or corymbose. Flowers showy, purple or rose,

rarely white. Sepals from orbicular to lanceolate, subequal, or the inner smaller, appressed to the fruit, often somewhat enlarged. Corolla funnel-shaped; limb plaited, very shortly lobed. Stamens included; anthers oblong, never twisting. Ovary completely 4-celled, 4-ovuled; disk annular, often prominent, as long as the ovary; style filiform; stigmas 2, sessile, globose. Fruit indehiscent, baccate or dry, hard or papery, 4 to 1-seeded.—*Hooker's Flora of British India* iv. 184.

A. speciosa, *Sweet*, Hort. Brit. ed. ii. 373. (So called from its showy flowers.) An extensive climber, stems stout, white-tomentose. Leaves 6 to 12 inches diameter, ovate-cordate, acute, glabrous above, persistently white-tomentose beneath, petioles long. Peduncles stout, 3 to 6 inches long; flowers subcapitate; bracts large, ovate-lanceolate, acute, thin softly, woolly deciduous; corolla 2 or 3 inches long, tubular, funnel-shaped, rosy, woolly. Fruit $\frac{3}{4}$ -inch in diameter, globose, apiculate, brown-yellow nearly dry.—*Hooker's Flora of British India* iv. 185.

Hab.: Queensland.—Third Supp. Cens. Austr. Pl.

Order SOLANACEÆ.

SOLANUM, Linn.

S. carduiforme, *F. v. M.*, Fragm. ii. 163. (Thistle-like.) An erect herb of 1 to 3 feet, of a pale glaucous green, covered with a stellate tomentum rather loose on the branches, very short and not dense on both sides of the leaves. Prickles rather slender, but long and very numerous on the branches, leaves, and especially on the female calyces. Leaves narrow, irregularly pinnatifid, with rather narrow, obtuse, entire or sinuate lobes, the whole leaf 3 to 5 inches long. Sterile flowers numerous, in dense racemes on long lateral peduncles. Calyx at the time of flowering about 3 lines long, campanulate, with broad lobes. Corolla not large. Fruiting calyx large, globular, very densely armed with rigid prickles, enclosing a globular berry of $\frac{1}{2}$ -inch or more.—*Flora Austr.* iv. 462.

Hab.: Lawn Hill, Burketown, on sandstone ranges.—*Frank Hugh Hann*.

ALLIANCE PERSONALES.

Order SCROPHULARINEÆ.

TRIBE CALCEOLARIEÆ.

CALCEOLARIA, Linn.

(So named from the fanciful resemblance of the corolla to a slipper, *calceolus*.)

TRIBE APOSECOS.

Calyx 4-parted; segments valvate, nearly equal, the upper segment generally a little broader than the rest. Corolla with a very short tube; limb 2-lipped, the upper short, truncately rounded, entire, the lower often large and inflated, concave, slipper-shaped. Stamens 2,

inserted at the base of the tube; short cells of anthers divaricate (one of which is sterile). Stigma minute. Capsule ovate-conical, 2-celled, opening septicidally, valves bifid; placentas adnate to the dissepiment. Seeds numerous, sulcately angular. Herbs, undershrubs, or shrubs, with opposite verticillate very rarely alternate leaves. Flowers in many-flowered cymes, rarely solitary; yellow, white, or purplish.

C. scabiosæfolia, *Ræm. et Schultes*, Bot. Mag. t. 2405. (*C. pinnata*, R. et P.) (So named from the supposed resemblance of its foliage to that of *Scabiosa*.) An annual pubescent plant from a few inches to over a foot high. Leaves opposite, pinnate or pinnatifid; pinnæ or lobes acuminate, serrate. Flowers in the upper axils, the peduncles lengthening out after flowering, bright-yellow. Calyx 4-parted. Corolla 2-lipped, the upper very short, concave-hooded, the lower large and inflated, nearly orbicular, flattened. Stamens 2, filaments with two arms, one arm bearing a 1-celled anther concealed under the hood of the upper lip of flower, the other sterile arm exerted. Ovary pubescent, 2-celled. Style conical. Stigma simple, seeds numerous.

Hab.: This Peruvian annual has been met with in a naturalised state by Dr. Lauterer on the banks of the Brisbane River.

TRIBE GRATIOLEÆ.

STEMODIA, Linn.

(Said to have been so named from the Greek *stemon* and *dis*—in reference to each stamen bearing 2 anthers or 2 distinct lobes.)

Calyx divided to the base into 5 segments or sepals, all equal or the upper one scarcely larger. Corolla tubular at the base, the upper lip broad, entire or notched, the lower one spreading, 3-lobed. Stamens 4, in pairs; anthers 2-celled with the cells quite separate, usually stipitate. Style dilated at the summit into 2 stigmatic lobes or rarely entire, not winged. Capsule globular, ovate or acuminate, opening septicidally in 2 usually 2-fid valves or in 4 valves, the placentas of the two carpels completely separating at maturity. Seeds numerous, small, striate and usually reticulate. Herbs, rarely undershrubs, more or less glandular-pubescent or villous and often strongly-scented. Leaves opposite or in whorls of 3 or 4. Flowers solitary in the axils, the upper ones often forming terminal spikes. Bracteoles usually 2, linear, close under the calyx.—Flora Austr. iv. 485.

S. viscosa, *Roxb.*, Pl. Coram. ii. 33 t. 163; Flora Austr. iv. 486. (Name alluding to the glandular pubescence of plant.) A perennial with ascending or erect scarcely branched stems from 6 inches to over 1 foot high, the whole plant pubescent or villous, viscid and strongly scented. Leaves opposite or in whorls of three, the lower ones often ovate and contracted into a petiole, the upper ones or nearly all lanceolate, acute, serrate, often dilated and stem-clasping at the base, the larger ones 1 to 2 inches long but often all under 1 inch; the

upper floral ones gradually smaller but usually distant. Flowers axillary, on pedicels shorter or longer than the leaves. Calyx about 2 lines long, the segments narrow, nearly equal or one larger. Corolla twice as long as the calyx, upper lip very broad, entire or slightly notched, the lower with 3 ovate very obtuse lobes. Anthers all 2-celled. Capsule acuminate, as long as the calyx.—*Flora Austr.*, l.c.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar*.

LIMOSELLA, Linn.

(So named from the species being found in marshes.)

Calyx campanulate, 2-toothed or lobed. Corolla broadly campanulate or almost rotate, with 5 nearly equal lobes. Stamens 4; anthers 1-celled (by the confluence of 2 divaricate cells); ovary 2-celled at the base only; style short, thickened at the end. Capsule globular, membranous, scarcely dehiscent or opening in 2 valves parallel to the very incomplete dissepiment. Small herbs, tufted, creeping or floating. Leaves clustered or alternate on short barren shoots. Peduncles usually very short, clustered with the leaves without bracteoles. Flowers white or pale-pink, or perhaps blue, usually very small.—*Flora Austr.* iv. 502.

L. Curdieana, *F. v. M.*, *Fragm.* ix. 166. (After Dr. Daniel Curdie.) Perennial, root-stock somewhat thickened, stoloniferous, petioles nearly terete, attaining 6 or more inches in length, about 1 line in thickness. Leaves ovate, floating, about 1 inch long. Flowers in clusters, nearly sessile at the base of the petioles. Calyces attaining 2 or 3 lines, with 5 somewhat acute teeth, fleshy, almost valvate in the bud. Corolla included in the calyx, scarcely 1 line long; lobes whitish-green, pilose on the upper side, slightly imbricate or almost valvate. Stamens 4, didymous, inserted in the throat of the corolla; filaments short; anthers oval-reniform. Style slender, filiform, scarcely $\frac{1}{2}$ -line long. Stigma finely papillose. Capsule large, 2 lines long, ovate-globose, 1-celled, with numerous finely netted ellipsoid seeds.—*F. v. M.* in *Fragm.* ix. 166.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order GESNERACEÆ.

TRIBE CYRTANDREÆ.

DIDYMOCARPUS, Wall.

(Twin-fruited.)

Calyx tubular or campanulate, 5-toothed, 5-fid, or 5-partite, the segments narrow. Corolla-tube elongate widening upwards, or short, broad, and ventricose; limb spreading, somewhat 2-lipped, the upper lip 2-lobed, the lower 3-lobed, the lobes broad, slightly unequal. Stamens 2 lower, rarely 4 perfect, inserted at the base or middle of the tube or rarely higher, included; filaments arched or flexuose. Anthers

connivent or coherent; cells divergent or divaricate, confluent at the point. Disk cupulate, surrounding the ovary or wanting. Ovary free, oblong-linear, imperfectly 4-celled. Style short or elongated, stigma slightly dilated, somewhat entire; ovules densely covering the margins of the placenta. Capsule linear, 2-valved, valves entire. Seeds small, foveolate. Herbs rarely undershrubs, of various habit. Leaves radical, opposite or rarely alternate. Peduncles or scapes axillary, bearing a loose cyme of few flowers.—*B. et H.*, Gen. Pl. ii. 1022.

D. Kinnearii, *F. v. M.*, Vict. Nat., Mar. 1887. (After Rob. Kinnear, of Melbourne.) Stemless. Leaves lanceolate or cordate-ovate, almost membranous, conspicuously serrated, the upper surface sprinkled with septate hairs, the under-surface as well as the long petioles silky-hairy. Peduncles about the height of the leaves, bearing a spreading softly hairy cyme of many small flowers; pedicels capillary, elongated, often in umbels. Bracts narrow. Calyx about half the length of the corolla; segments broad-linear, narrowed upwards. Corolla white, glabrous, upper lobes deeply divided, the middle one of the lower lobes somewhat longer than the others, the tube slightly widened, not quite as long as the lobes. Stamens 2, as well as the style and ovary glabrous. Capsule hardly three times as long as the calyx, about twice the length of the style, narrow ellipsoid-cylindrical, attenuated towards the summit, not stipitate; placentas amply intruding. Seeds almost spindle-shaped.—*F. v. M.*, *l.c.*

Hab.: Collected by *Sayer* and *Davidson* near the summit of Mount Bellenden-Ker.

NOTE.—Baron Mueller says: "This species is in some respects allied to *D. cordatus*, but the vestiture is whitish, the leaves are all radical and long-stalked, the calyces very hairy; the corolla is smaller, and the capsule much shorter. Our plant has the general aspect of *D. macrophyllus*. In the shortness of the corolla-tube *D. Kinnearii* comes near to *Bæa*, and recedes from most of its congeners."—*F. v. M.*, *l.c.*

ALLIANCE LAMIALES.

Order MYOPORINEÆ.

MYOPORUM, Banks et Sol.

M. deserti, *A. Cunn.* This shrub, which is met with in more or less quantity in each of the Australian colonies, has at times been suspected of poisoning stock. A short time since Mr. A. B. Briggs, writing to the Chief Inspector of Stock, said: "I have known 1,200 poisoned out of a mob of 10,000 by eating this bush during times of scarcity of feed."

For further account of this and other suspected poison plants, see pamphlet on the subject by the Colonial Botanist and Chief Inspector of Stock for Queensland.

SECTION DISOON.

Calyx small, narrow. Ovary 2-celled, with ovule in each cell. Fruit compressed.

M. platycarpum, *R. Br.*, Prod. 566; Fragm. vi. 150; Flora Austr. v. 7. (So named from its flattened fruit.) A tall shrub or

small tree, quite glabrous. Leaves linear-lanceolate, acute, entire, or with a few small distant teeth in the upper part, $1\frac{1}{2}$ to 3 inches long, rather thick, contracted into a short petiole. Pedicels often 6 or more in the axils, 1 to 2 lines long. Calyx not $\frac{3}{4}$ -line long, acutely lobed. Corolla more or less bearded inside at the throat, sometimes scarcely 2 lines long with the stamens included, in other specimens twice as large, with exerted stamens. Ovary 2-celled, with 1 ovule in each cell. Fruit ovate or ovate-oblong, acute, much flattened, about 3 lines long.—Flora Austr. v. 7.

Hab.: Queensland.—*F. v. M.*, Lithograms ii.

EREMOPHILA, R. Br.

SECTION ERIOCALYX.

E. strongylophylla, *F. v. M.*, Fragm. x. 87. (The name alluding to its roundish leaves.) Plant hoary-tomentose sprinkled with articulate hairs. Leaves orbicular, 4 to 8 lines in diameter. Flowers almost sessile. Calyx-segments 4 to 6 lines long, lanceolate-linear, with long points. The corolla almost of a violet colour, 8 lines long, pubescent outside and also in the mouth. Style glabrous. Ovary velvety.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl. and Lithograms ii. plate 23.

SECTION PLATYCALYX.

Calyx campanulate, divided to the middle only into 5 lobes. Flowers and fruit of *Platyichilus*.

E. Macdonnelli, *F. v. M.*, Rep. Babb. Exped. 18; Flora Austr. v. 22. (Name in honour of Sir Richard G. Macdonnell, Governor of South Australia at the time.) A branching shrub, glabrous or clothed with a hoary or white close stellate or plumose tomentum, or with long spreading hairs, or with both. Leaves oblong-linear or lanceolate, obtuse or acute, contracted at the base but scarcely petiolate, rarely above $\frac{1}{2}$ -inch long. Pedicels solitary, $\frac{1}{4}$ to above $\frac{1}{2}$ inch long. Calyx campanulate, with acute or acuminate lobes about as long as the tube, which is sometimes prominently angled and membranous, sometimes more herbaceous and tomentose without prominent ribs, the whole calyx varying from 4 to 9 lines long. Corolla bluish, glabrous outside, 1 to $1\frac{1}{2}$ inch long, the tube not constricted above the ovary and much dilated upwards, the lobes all broad and nearly $\frac{1}{2}$ -inch long, upper ones more united, the three lower ones more spreading, the lowest rather broader than the others but not notched. Stamens included. Ovary narrow, glandular-dotted and tipped with a few hairs, with 2 pairs of ovules in each cell. Fruit very succulent, ovoid-globose, acute.—Flora Austr. v. 23.

Hab.: Queensland.—*F. v. M.*, Lithograms ii. plate 1. First found near Cooper's Creek.

SECTION PLATYCHILUS.

E. Goodwinii, *F. v. M.*, Rep. Babb Exped. 17; Flora Austr. v. 25. (After — Goodwin.) A shrub several feet high, more or less glandular and viscid, and often hirsute with spreading hairs, which are rarely wanting on the calyces and pedicels. Leaves linear or linear-lanceolate, acutely acuminate, entire, scarcely contracted or even dilated at the base and sessile, the midrib often very prominent underneath, mostly 1 to nearly 2 inches long. Pedicels solitary, $\frac{1}{2}$ to 1 inch long or even more. Calyx-segments much imbricate, lanceolate, very acute, 4 to 8 lines long, the outer one usually broader and the 2 innermost smaller than the others. Corolla more or less pubescent outside, $\frac{3}{4}$ to about 1 inch long, the lobes broad, obtuse, or shortly acute, the 2 uppermost more united, the middle lowest lobe scarcely broader than the others. Stamens included. Ovary shortly ovoid, very hairy, with 2 pairs of ovules in each cell. Fruit very obtuse or retuse, hairy, 4 to 5 lines long, very thick, with a thick, bony, 4-celled putamen. —Flora Austr., l.c.

Hab.: Queensland—*F. v. M.*, Lithograms ii. plate 2. Most likely near Cooper's Creek.

SECTION STENOCHILUS.

E. Duttoni, *F. v. M.*, Rep. Babb. Exped. 16; Flora Austr. v. 28. (After F. S. Dutton, of S.A.) An erect glutinous shrub, glabrous or the young shoots slightly tomentose. Leaves narrow-lanceolate, entire, tapering into a long acute point, contracted at the base but scarcely petiolate, 1 to 2 inches long. Pedicels solitary, $\frac{1}{2}$ -inch long or more, very spreading, and turned up towards the end. Flowers "orange-red." Calyx segments ovate, acute or acuminate, and 4 to 6 lines long at the time of flowering, afterwards often enlarged, broad, coloured, almost scarious and veined. Corolla usually glabrous outside, slightly bearded inside, 1 to $1\frac{1}{4}$ inch long, the tube constricted above the ovary, then enlarged and slightly curved, the 4 upper lobes short and acute, the lowest oblong, obtuse, separate to about one-third of the corolla. Stamens exerted. Ovary glabrous or slightly glandular-pubescent, with a pair of ovules in each cell. Fruit succulent, shining, shorter than the enlarged calyx, the putamen hard and bony, usually 4-celled, with 1 seed in each cell.

Hab.: Queensland.—*F. v. M.*, Lithograms ii. plate 36.

Order VERBENACEÆ.

TRIBE CHLOANTHÆ.

SPARTOTHAMNUS, A. Cunn.

S. puberulus, *F. v. M.* in Wing's Sou. Sci. Rec., Mar. 1882. Separated from *S. juncea* by Baron Mueller on account of its stellate down, larger leaves, shorter pedicels to the flowers, less pointed segments of calyx, and the stellate hairs on the outside of the corolla.

Hab.: Maranoa and Warrego.

Order LABIATÆ.

TRIBE AJUGOIDEÆ.

TEUCRIUM, Linn.

T. ajugaceum, *Bail. et F. v. M.* (Name from resemblance to an *Ajuga*.) A densely hairy perennial with procumbent quadrangular branches often extending to several feet in length. Leaves 6 to 9 lines long and about as wide, in distant sessile pairs, 3 to 6 or more lobed, cuneate towards the base. Flowers axillary, in short cymes; few flowers, seldom much exceeding the leaves. Calyx about 3 lines long; teeth acute, of equal length with the tube. Corolla exceeding the calyx by about $\frac{1}{2}$ -inch, slightly pubescent outside, with a tuft of white hairs on either side in the throat; upper lip oblong, about equal in length with the lateral lobes of the lower lip; middle lobe much larger and very obtuse. Stamens more or less hairy, densely so close under the anther. Nuts glabrous.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar.*

SUBCLASS MONOCHLAMYDEÆ.—SERIES CURVEMBRYEÆ.

Order NYCTAGINEÆ.

TRIBE MIRABILIEÆ.

MIRABILIS, Linn.

(Name from the Latin, signifying something wonderful or admirable.)

Flowers regular, hermaphrodite. Calyx petaloid-tubular or tubular-infundibuliform. Limb usually patulous, 5-dentate, membranous-dilated between the teeth and induplicate-contorted in the bud; tube slightly dilated at the base and somewhat constricted above dilatation, upper part caducous. Stamens 5, unequal, even with or slightly longer than tube of perianth, alternating with its teeth; filaments 1-delphous at base, sometimes connate in a short, thick, fleshy, disk-like tube, free above; anthers short, 2-celled, laterally or subintrorsely rimose at margins. Ovary free above, surrounded at the base by a thin disk, 1-celled; style slender, recurved at apex; summit globose, divided into short simple or slightly ramose, capitellate, stigmatiferous branches; ovule 1, sub-basilar, suberect, inserted in internal angle of the ovary, anatropous or sub-campylotropous; micropyle anterior, inferior. Fruit (an achene or nearly a caryopsis) clothed with hardened 5-agonal base of the calyx and base of stamens; internal albumen of suberect seed farinaceous; cotyledons of incurvo-involute peripheral embryo incumbent, unequal (the interior smaller); radicle cylindro-conical, inferior. Herbs: roots usually tuberous-conical, stem and branches articulate at nodes; leaves simple, opposite, exstipulate; flowers crowded in cymes at ends of twigs (sometimes 1-parous); involucre (sometimes calyciform) formed of 5 large bracts connate at base, imbricate or

subvalvate, 1-flowered in *Enmirabilis*. Flowers articulate at base beyond involucre.—*Baillons*, Nat. Hist. of Plants iv. 18.

M. jalapa, *Linn.*; *Choisy* in DC. Prod. xiii. 2427. (So named from its being at one time supposed to furnish the jalap of commerce.) Marvel of Peru or Four-o'clock. Stems thick, subglabrous, dichotomously branched, arising annually from a thick tuberous rootstock. Leaves opposite, ovate, acute, petiolate. Flowers terminal, 3 to 6 together, red, white, yellow, or variegated, each enclosed in a calyx-like involucre with 5 long lanceolate teeth, a cylindrical perianth-tube 1 to 1½ inch long, a spreading limb 1 inch broad, with 5 round lobes, 5 stamens incurved at the tip with minute anthers, and an obovoid or subglobose black 10-ribbed fruit, surrounded by the indurated base of the perianth.

Hab.: This tropical American plant has become naturalised near settlements in several parts of Queensland.

The juice of the leaves is applied to wounds and bruises; boiled in water they are used as a stimulating poultice to boils and buboes; the roots possess purgative properties; the seeds are used to adulterate black pepper in India, according to Dr. Dymock. Although these seeds could be obtained in quantity in Queensland they are not likely to be applied to the above purpose while grocers can obtain linseed meal.

Order AMARANTACEÆ.

TRIBE AMARANTEÆ.

PTILOTUS, R. Br.

P. latifolius, *R. Br.* in App. Sturt's Exped. 25. (Broad-leaved.) Stems erect, much branched, attaining the height of 2 feet, the branches and young foliage covered with an intricate white cottony wool, the older leaves becoming glabrous. Leaves obovate, very obtuse, rather thick, with slightly crisped margins, contracted into a rather long petiole, the largest about 1 inch long, the upper ones smaller. Spikes nearly globular, fully ½-inch diameter, numerous, sessile or shortly pedunculate, terminal or in the upper axils, usually with 1 or 2 small herbaceous leaves close under them. Bracts and bracteoles thinly scarious, white and shining, very broadly ovate or almost orbicular, obtuse, loose or spreading, 2½ to 3 lines long. Perianth not 2 lines long, the base a very short open disk, the segments with a narrow base densely clothed outside with long woolly hairs, glabrous inside, the lamina or upper half rather broader, obtuse and glabrous. Stamens all perfect and nearly equal. Ovary glabrous.—*F. v. M.* in Flora Austr. v. 244.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRICHINIUM, R. Br.

T. parvifolium, *F. v. M.*, Rep. Babb. Exped. 19. (Small-leaved.) Plant slender, pubescent, with a few short woolly hairs. Leaves minute, ovate or lanceolate, acute, none seen exceeding 1 line in length. Flowers small.—Flora Austr. v. 241.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order CHENOPODIACEÆ.

TRIBE ATRIPLICEÆ.

ATRIPLEX, Linn.

SERIES PARVILOBÆ.

A. limbatum, *Benth.*, Flora Austr. v. 178. (Alluding to the appendages of fruit.) A procumbent perennial with a thick stock, scaly-tomentose. Leaves obovate or oblong, entire or angular-toothed. Flowers monœcious, all axillary, the male clusters in the upper axils surrounded by females, the lower clusters all females. Fruiting perianth with a cylindrical tube enclosing the fruit, as in *A. leptocarpa*, but sessile and usually rather larger and harder, and sometimes the solid base much elongated, extending the whole tube to $\frac{1}{2}$ -inch or more, but varying in this respect even in the cluster; the orifice closed by 2 valves reduced to 3 lobes, of which the lateral ones are spreading, incurved, and hornlike, about 1 line long; those of the 2 valves more or less united, the central lobe minute or almost obsolete, and alternating with the horns are 2 herbaceous, spreading, broad, dorsal appendages, also about 1 line long, giving the apex of the perianth the appearance of a spreading 4-lobed limb, but with the disk closed. Radicles of the seed ascending or superior.—Flora Austr. v. 178.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRIBE CHENOLEEÆ.

BABBAGIA, F. v. M.

B. scleroptera, *F. v. M.* in Sou. Sc. Rec., Nov. 1885. (Name alluding to the hard wing-like appendages of fruit.) Leaves short, almost semi-cylindrical; axils not distinctly bearded; tube of the fruit-calyx turgid, downward smooth, deeply excavated at the base inside, streaked towards the summit, terminated by generally 5 but sometimes fewer rhomboid or obovate-cuneate not membranous appendages; seed lodged above the middle of the calyx-tube.

Hab.: Near the Warrego.—*Bêche*.

This species differs from *B. pentaptera* particularly in the deep basal empty cavity of the fruit, in the appendages not reaching to the base of the calyx-tube and not or only slightly expanding into a tender membrane. Indeed this new plant is nearer to *B. acroptera*, from which it is distinct in its fruit-calyx being more turgid and not oblique at the base, and producing an augmented number of appendages devoid of any ample terminating membrane.—*F. v. M.*, *l.c.*

B. acroptera, *F. v. M. et Tate*, Trans. Roy. Soc. of Austr. vi. 108, 1883. (Name alluding to wings on the top of fruit.) Leaves oblong, semi-cylindrical; fruit-calyx above the tubular base turgid, thence produced into two oblique-roundish or broad-cuneate completely terminal and conspicuously stipitiated membranous appendages.—*F. v. M.*, *l.c.*

Hab.: Queensland, *F. v. M.*—Third Supp. Cens. Austr. Pl.

The following, according to Baron Mueller, are the chief characteristics which distinguish this plant from *B. dipterocarpa*: The narrower hollow base of aged calyx-tube, the more stipitate not reniform appendages, one of the two being more developed than the other.

SERIES DAPHNALES.

Order LAURINEÆ.

TRIBE PERSEACEÆ.

PERSEA, Gærtn.

Flowers hermaphrodite, or rarely by abortion polygamous. Perianth-tube short; segments 6, nearly equal or the 3 exterior smaller, seldom very small. Perfect stamens 9, in 3 series, the first and second eglandulous, the third inner series with 2 globose glands at the base; anther introrse, 4-celled; filaments villous. Staminodia with cordate triangular heads. Ovary sessile. Stigma discoid. Berry more or less thickened and fleshy. Trees, with alternate or opposite penninerved or triplinerved leaves. Flowers paniculate, axillary or subterminal.

P. Baileyana, *F. v. M.* Candle-wood of Frazer's Island. A scrub tree attaining the height of about 60 feet, glabrous except the inflorescence. Leaves opposite, or here and there alternate, ovate or ovate-lanceolate, 2 or 3 inches long, on petioles of about $\frac{1}{2}$ -inch, green on both sides, prominently triplinerved and finely reticulate, most conspicuous on the underside. Inflorescence terminal or in the upper axils, forming short trichotomous panicles, or more or less racemose, bearing distant few-flowered clusters. Perianths silky-white, on short pedicels; segments about 2 lines long.

Hab.: Frazer's Island.—*H. St. John Wood.*

Order PROTEACEÆ.

TRIBE GREVILLEÆ.

HOLLANDEA, *F. v. M.*, Chem. and Drug. of Austr., June 1887.

(Name in honour of Sir Henry Holland, Bart., Secretary of State for the Colonies.)

Flowers bisexual, petals symmetrical at first, coherent into a straight tube, soon disconnected. Stamens inserted within the dilated summit of the petals. Anthers almost sessile, broadly linear by prolongation of the connective, bluntly apiculated; pollen-grains roundish, tetrahedral, smooth. Style straight, capillary. Stigma ellipsoid clavate, terminal. Hypogynous glands 4, roundish, somewhat connate. Ovary sessile, conical-ellipsoid; ovules many, bi-seriate, placed horizontally. Fruit large, bursting anteriorly into 2 hard, widely expanded, dorsally connate valves. Seeds several, placed in 2 rows against each other horizontally, comparatively very large, flatly compressed, except the terminal and basal seed; all others either dimidiate or truncate; orbicular, very thick, the inner margin often triangular and overlapping. Testa membranous and partly chartaceous, not expanding into any appendage. Albumen none. Cotyledons whitish, hard-carulent, thick, more or less unequal, flat on one side, angular on the other, dorsally broad and abruptly rounded, anteriorly narrow-edged. Radicle minute, enclosed within the cotyledons, near

the point of the attachment of the seed. A tree of intra-tropical Queensland, with rather large leaves, scattered or sometimes opposite; racemes spike-like, much elongated, lateral, and perhaps also terminal. Bracts minute. Flowers in pairs on semi-connate pedicels; petals quite straight before expansion. Fruit ovate-ellipsoid; pericarp dry, transversely impressed inside.—*F. v. M.*, *l.c.*

H. Sayeri, *F. v. M.* *Helicia Sayeri*, *F. v. M.*, *Vic. Nat.* iii. 92. Tree about 40 feet high, bark smooth ashy-grey. Leaves (or perhaps leaflets, for the material received by Baron Mueller was fragmentary) scattered, shortly stalked, roundish, ovate, remotely toothed, 9 inches long, 6 inches broad, dark-green, somewhat acute at the base, firmly chartaceous, the lateral nerves rather distant, anastomosing towards the margin, the meshes of primary veins ample. Racemes spike-like, sometimes a foot long, lateral, short-stalked, rhachis glabrous. Bracts minute, narrow, acute. Pedicels very short, semi-connate in pairs, slightly silky. Petals about $\frac{3}{4}$ -inch long, very narrow, except at the dilated summit. Anthers oblong-linear, conspicuously apiculated, almost sessile, connective broad. Style hardly longer than the petals, capillary. Stigma short, clavate-ellipsoid. Ovary glabrous; hypogynous scales roundish, somewhat connate. Fruit $2\frac{1}{2}$ to 6 inches long, the transverse ridges inside the valves only slightly prominent, through marking off the respective spaces occupied by each of the seeds. Seeds fully 1 inch long and $\frac{3}{4}$ -inch broad, and about $\frac{1}{2}$ -inch thick; testa brown, smooth. The fruit resembles that of *Cardwellia sublimis*.—*F. v. M.* in *Vic. Nat.*, Nov. 1886, and *Chem. and Drug.*, June 1887.

Hab.: Russell River and base of Mount Bellenden-Ker.—*W. Sayer*.

HAKEA, Schrad.

H. Persiehana, *F. v. M.*, *Austr. Journ. of Pharmacy*, Nov. 1886. (After the collector, W. Persieh.) A small tree with slender branchlets, clothed with an appressed down. Leaves thinly filiform, attaining 7 inches in length, glabrescent, not shining or furrowed, the apex pointed but the point easily wearing off. Peduncles about $\frac{1}{2}$ -inch long bearing dense corymbs of small flowers, the rhachis velvety; bracts minute, very deciduous; segments of perianth about 2 or 3 lines long, silky outside; pedicels about the length of perianth. Style almost glabrous; stigma hemispheric-conical, much broader than the summit of the style, peltate and quite terminal; hypogynous gland unilateral, adnate; ovary glabrous, nearly sessile; fruit 1 inch long, $\frac{1}{2}$ -inch broad, lanceolate-ellipsoid, almost dimidiate-oblique, smooth, shortly attenuated at the base, gradually narrowed into the acute apex. Seed-wing not decurrent along the nucleus.—From *F. v. M.*'s description in *l.c.*

Hab.: Endeavour River.

Baron Mueller considers this species to approach *H. pedunculata* and *H. arborescens*, differing from each in form of leaves and position of stigma.

GREVILLEA, R. Br.

G. pinnatifida, *Bail.* (*Kermadecia pinnatifida*, *Bail.*, Queensland Woods No. 332a.) A very handsome erect tree of medium size, the

smaller branches angular and velvety, with rusty-brown hairs. Leaves alternate, entire or pinnatifid, those of the barren shoots and young plants often exceeding 18 inches in length, divided nearly to the midrib into from 2 to 4 pairs of opposite, long, narrow-linear, attenuated, somewhat approximate lobes about 1 inch broad, with or without a terminal odd lobe, the base decurrent on the petiole; the upper surface of a greyish-green, the under-surface bright rusty-brown, prominently reticulate, the lateral oblique primary veins joining in an intramarginal one some distance from the edge of the leaf. The leaves near the inflorescence simple and lanceolate, about 6 inches long. Inflorescence silky-white in a terminal panicle of raceme-like branches 3 to 5 inches long, bearing pedicellate flowers, scattered solitary or in clusters of 2 or more. Bracts linear, 2 or 3 lines long, very deciduous. Perianth silky, glabrous inside, about 3 or 4 lines long, the segments very narrow, the limb globose; ovary stipitate, glabrous; style filiform; stigmatic disk lateral and somewhat dilated; hypogynous gland broad. Fruit an oblong coriaceous follicle, pendulous on the rhachis, about 7 lines long and 4 lines broad, slightly compressed, bearing the straight persistent style. Seeds 2, bordered all round by a membranous wing.

Hab.: Johnstone River.—*T. L. Bancroft.*

This fine species is allied to *G. Hilliana*, F. v. M., from which, however, it differs in having a paniculate inflorescence, the flowers of which are not so crowded; the fruit is also smaller than that species and not so hard and woody. Before the fruit was seen it was thought probable that the tree was a new *Kermadecia*, under which genus it is provisionally noticed in the Catalogue of Woods sent to the Colonial and Indian Exhibition.

Order THYMELÆACEÆ.

PIMELEA, Banks et Sol.

P. ligustrina, *Labill.*, Pl. Nov. Holl. i. 9 t. 3; Flora Austr. vi. 19. (So named from its resemblance to the *Previt.*) A graceful shrub of 5 to 7 feet, glabrous except the inflorescence or the young shoots slightly silky-hairy. Leaves opposite, from ovate to oblong or elliptical, rather thin, 1-nerved and more or less distinctly penniveined, 1 to 1½ inch long, or on luxuriant shoots twice that size. Flower-heads rather large, globular, on peduncles about 2 inches long; involucre bracts in the typical form 4 or rarely 5 or 6, very broad, as long as the perianth-tubes, glabrous or nearly so. Flowers hermaphrodite, or in some specimens female with shorter perianths, but in both cases apparently fertile. Perianth-tube fully 5 lines long in the hermaphrodite flowers, shorter in the females, in both more or less silky-hairy and circumscribed above the ovary after flowering, the lobes about 1½ line long. Filaments in the hermaphrodite flowers nearly as long as the lobes, the anthers oblong, with a narrow connective; in the females the anthers small, empty, on short filaments, and the style longer. Fruit acuminate, the beak longer in the hermaphrodite than in the female

specimens. Epicarp membranous. Seed oblong; albumen scanty; cotyledons ovate-oblong, flat, but rather thick.—Flora Austr., l.c.

Hab.: Mount Mistake.

SERIES UNISEXUALES.

Order EUPHORBIACEÆ.

TRIBE EUPHORBIÆ.

EUPHORBIA, Linn.

E. corynocladia, *F. v. M.*, Sou. Sci. Rec. ii. (new series), April 1886. (Referring to the club-shaped branchlets.) A glabrous shrub with an undivided stem, about 10 feet high; the ultimate branchlets terete, thickened gradually upwards, 8 to 9 inches long, the summit about $\frac{3}{4}$ -inch thick, marked by almost semi-circular scars, arranged somewhat spirally. Cymes terminal, compound, the ultimate portions recurved, the pedicels clasped by a very narrow membrane. Bracts opposite, reddish, deltoid-ovate, not distant from the flower; tube of the involucre nearly hemispherical, slightly angular. Lobes 5, ovate, obtuse, membranous, fringed, shorter than the renate-orbicular entire glands; bracteoles within the involucre nearly as long as the stamens, somewhat fringed; filaments very short; anther-cells roundish and somewhat compressed laterally; segments of the female calyx 3, very short, oval or roundish; styles free, undivided. Capsule about 4 lines diameter, smooth, nearly globular; seeds globular, about 2 lines diameter; testa brownish, smooth, no conspicuous arillus; embryo narrow. Cotyledons cordate-orbicular.

Hab.: On rocks, Woiweer Island, about 10 miles west of Thursday Island.—*W. Bauerlen.*

This cactus-like *Euphorbia* might be systematically placed near *E. aphylla*.

The whole of the above is extracted from Baron Mueller's description of the plant in vol. ii. of the new series, Southern Science Record, April, 1886.

TRIBE STENOLOBÆ.

RICINOCARPUS, Desf.

R. speciosus, *Muell. Arg.* in DC. Prod. xv. ii. 204; Flora Austr. vi. 73. A tall, slender, erect shrub, 5 to 7 feet high. Branches clothed by a close, hoary, slightly rusty, stellate tomentum. Leaves shortly petiolate, oblong-linear or lanceolate, the margins recurved, the upper surface bright-green when old, but while young covered by stellate hairs, densely white-tomentose on the under surface, 3 or more inches long and over $\frac{1}{2}$ -inch broad, on petioles of about 3 lines. Bracts linear, nearly as long as the pedicels. Flowers terminal, about 5 together, mostly male, the pedicels about $\frac{1}{2}$ -inch long, with a pair of minute bracteoles about the middle. Calyx-lobes about 2 lines long, 1 line broad, rather obtuse, larger under the fruit. Petals white, oblong, 5 lines long, $2\frac{1}{2}$ lines broad, and shortly clawed. Glands distinct, very broad and densely ciliate, with long white hairs. Capsule oblong,

about $\frac{1}{2}$ -inch long, densely clothed by stellate hairs and bearing the prominently divided styles.

Hab.: Belmont Scrub, near Brisbane. In flower in September.

TRIBE PHYLLANTHÆ.

HEMICYCLIA, Wight et Arn.

H. sepiaria, *W. et Arn.*; *Muell. Arg.* in DC. Prod. xv. ii. 487; *Flora Austr.* vi. 117. Var. (♀) *oblongifolia*. A tall shrub, the young shoots minutely pubescent, the adult foliage glabrous. Leaves petiolate, ovate-oblong or oblong-lanceolate, obtuse, coriaceous and shining when full-grown, but most of those on the flowering specimens still young and membranous, finely veined underneath, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long. Male flowers several together in axillary clusters, sometimes growing out into short racemes, the filiform pedicels about 2 lines long. Perianth-segments 4, broad, about 1 line long. Stamens 6 to 8 in the flowers examined, inserted round a hollow disk, with the margins undulate as in *H. australasica*. No female specimens seen of the Australian variety.—*Flora Austr.* vi. 118.

Hab.: On the Port Darwin beach.

I have received from Mr. H. L. Griffith, of Mackay, specimens which seem to agree better with the above species than the other Australian kinds, but, not having seen flowers, some doubt still remains.

Order URTICACEÆ.

TRIBE URTICEÆ.

BÆHMERIA, Jacquin.

(Named after George Rudolph Bøhmer, a German botanist.)

Flowers monœcious or diœcious, in globular usually unisexual clusters, with small scarious bracts. Male perianth of 4 (rarely 3 or 5) segments or lobes, valvate in the bud. Stamens as many as perianth-segments, with a central clavate or globose rudimentary pistil. Female perianth tubular, compressed, more or less dilated below, usually contracted at the orifice, with a 2 or 4-toothed border. Nut dry, included in the persistent perianth, free or more or less adnate to it, sessile or stipitate, with a long linear-filiform papillose-hirsute style or stigma, protruding from the perianth and persistent on the ripe nut. Seed more or less albuminous. Shrubs or small trees. Leaves alternate or opposite, petiolate, 3-nerved, toothed. Stipules usually deciduous. Flower-clusters axillary, either sessile and solitary or in simple interrupted spikes or short-branched panicles.—*Flora Austr.* vi. 185.

B. macrostachya, *R. Wight* in *Icones*, under *Splitgerbera*. A soft-wooded shrub of 5 or 6 feet, more or less clothed with short hairs. Leaves opposite, ovate-lanceolate or cordate-ovate, acute, 6 to 8 inches long, 3-nerved, serrated, on slender petioles 2 to 4 inches long. Spikes axillary, filiform, interrupted, 4 to 7 inches long. Flowers, male clusters 6 to 8-flowered, female 10 to 12 or more; male perianth of

4 2-toothed segments, stamens 4 with a rudimentary ovary; female perianth tubular, ventricose, contracted, 4-toothed at the apex enclosing the ovary; style long, filiform; stigma simple, acute, villous. Seeds oval, erect, enclosed in the perianth; exalbuminous radicle superior.—From *Wight's* Icones in part.

Hab.: Goamba Creek, Tambourine Mountain.

Many plants of this and allied genera produce valuable fibre.

Class II. MONOCOTYLEDONS.

SERIES MICROSPERMÆ.

Order HYDROCHARIDÆ.

TRIBE VALLISNERIÆ.

VALLISNERIA, Linn.

V. caulescens, *Bail. et F. v. M.* Stems submerged, leafy, lengthening to 18 inches or more, resembling a *Potamogeton*. Leaves numerous, linear, obtuse, from $1\frac{1}{2}$ to 3 inches long and about $\frac{1}{2}$ -inch broad. The few specimens collected show 4 to 3 spathes in the axils of the lower leaves; in the upper axils, however, they are solitary, and all sessile. Calyx-tube under the lobes gradually contracted.

Hab.: Found in the M. Lagoon, about 60 miles west of Normanton, by *Dr. Thos. L. Bancroft*.

Order ORCHIDÆ.

TRIBE EPIDENDREÆ.

DENDROBIUM, Sw.

D. eriæoides (sp. nov.) (So named from its resemblance to an *Eria*.) Forming large masses on the stems of trees; rhizome creeping, giving origin to numerous terete, finger-like, erect stems, from 2 to 4 inches long and about $\frac{1}{2}$ -inch diameter, more or less clothed by striated sheathing scales (the bases of abortive leaves), bearing at the summit 1 or 2 lanceolate leaves often slightly spirally twisted, about 5 inches long, and 1 inch broad at the middle; the midrib sharp on the underside, with 3 or 4 more or less prominent longitudinal nerves on either side; the apex deeply emarginate, and the base tapering to a rather long petiole. Racemes 2 or 3 inches long, hoary, erect, lateral, bearing from 6 to 9 small, hoary, dingy-purplish flowers, sessile or very nearly so. Bracts subtending each flower, small, obtuse, scarious, and 1 or more similar ones below the flowers. Calyx-tube with 6 prominent purplish ribs; outer segments 3-nerved, dorsal obtuse-oblong, lateral ones with their oblique bases forming a short blunt spur; inner segments smaller than the outer ones, 3-nerved, sub-glabrous. Labellum of 3 almost equal lobes, with 3 longitudinal nerves, the

2 outer ones supplying secondary veins to the lateral lobes; terminal lobe ovate-obtuse, white; lateral lobes oblique, obtuse, glandular, purplish, closely clasping the short column. Column short; anther white, cordate. The flowers minutely punctate with white dots.

This interesting new orchid was collected by Dr. Thos. L. Bancroft at the Johnstone River. The plant which has afforded material for the above description has lately flowered at Bowen Park.

The pollen-masses correspond both in form and number with those of *Dendrobium*, but the general aspect of the plant is so unlike that of any of this genus with which the writer is familiar that its final inclusion under *Dendrobium* is a matter of uncertainty.

D. Schneideræ, *Bail.*, Occasional Pap. on Queensl. Fl. No. 1 p. 7. Stems or pseudobulbs rather dense, arising from a slender creeping rhizome, short-conical, about 6 lines long and 4 lines in diameter, of a brownish colour and prominently ribbed. Leaves terminal, and, so far as observed, always 2, often twisted, linear-oblong and unevenly emarginate at the end, length less than 1 inch, width about 3 lines. Racemes filiform, terminal, pendulous, $3\frac{1}{2}$ inches long, bearing about 10 small greenish-yellow flowers; bracts minute, lanceolate. Pedicel with calyx-tube under 2 lines long, the latter bluntly ribbed. Segments of flower broadly ovate, incurved, the outer about 2 lines, the inner ones rather smaller; the outer edged by a red line which is not always observable on the inner segments; the spur much curved upwards and rather large for the size of the flower. Labellum about 2 lines long, the lateral lobes ending in a dark-coloured point beyond the middle lobe, which is almost wanting, or very short and truncate. The disk thick, forming, with the abbreviated middle lobe, a cushion-like patch. Column short, the upper part around the stigma marked by a red somewhat horseshoe-like line. Anther-lid white; pollen-masses pale-yellow.

Hab.: Darlington Range.—*H. Schneider*.

This unique little species is dedicated to Mrs. H. Schneider, a lady who has been most successful in collecting and cultivating Queensland ferns and orchids. It is allied to *D. monophyllum*, differing, however, sufficiently to rank as a distinct species.

ERIA, Lindl.

E. australiensis, *Bail.*, No. 1 Occasional Pap. on Queensl. Fl. Stems in dense clusters, slender, terete, from 1 to 2 feet high, often leafy throughout or the lower half closely covered by the scarious bases of fallen leaves. Leaves distichous, glossy, oblong and prominently emarginate, about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ -inch broad, the keel sharp, the midrib extending beyond the margin in the sinus in the form of a small bristle. Racemes axillary or lateral, numerous, about 3 or 4 lines long, the persistent bracts ovate-lanceolate, $1\frac{1}{2}$ line long, the calyx-tube about the same length. Flowers glabrous, small, greenish-white, 3 to 6 in the raceme; segments similar or the inner ones the smaller, ovate, about 1 line long; spur short and blunt. Labellum white marked by faint lines, broadly ovate, strongly recurved, the disk without plates or calli. Column very short and broad, anther

lid sharply conical. Pollen-masses claviform, bright-yellow. Capsule bluntly ribbed and somewhat compressed, probably about $1\frac{1}{2}$ inch long when ripe, but not quite ripe on the plants examined.

Hab. : Johnstone River.—*T. L. Bancroft.*

TRIBE VANDEÆ.

SARCOCHILUS, R. Br.

S. Fitzgeraldi, *F. v. M.*, *Fragm.* vii.; figured in Fitzgerald's Australian Orchids i. part 3. Stem 3 or 6 inches long, clothed with leaves or the bases of old ones. Leaves slightly falcate, 4 to 7 inches long and $\frac{1}{2}$ -inch or more broad. Racemes long and drooping, bearing 4 to 8 showy flowers, white spotted with maroon. Bracts small, pedicels about $\frac{1}{2}$ -inch or more long; segments of flower nearly equal, contracted at the base, about 6 lines long; spur short and broad. Labellum not half the length of the other segments, the lateral lobes ovate, falcate, scarcely $1\frac{1}{2}$ line long, the middle lobe scarcely prominent, the solid dorsal protuberance short and obtuse. Disk with a large very prominent callus between the lateral lobes and a smaller one just within the middle lobe. Column spotted with red.

Hab. : Darlington Range.—*H. Schneider.*

S. parviflorus, *Lindl.*, *Flora Austr.* vi. 295; figured in Fitzgerald's Australian Orchids i. part 3. Stems very short. Leaves rather thin and falcate, 2 to 4 inches long. Racemes drooping, rather numerous, longer than the leaves, with many green and white flowers on pedicels of about 3 lines. Segments narrow-oblong, 4 or 5 lines long. Labellum nearly sessile at the end of the basal projection of the column, white more or less tinted with yellow; the lateral lobes spotted or streaked with red, ovate-oblong, about as long as the outer segments; the middle lobe very small, the dorsal protuberance or solid spur thickly conical or obovoid, about half as long as the lateral lobes; the disk with several irregular very prominent calli between the lobes. Column more or less stained with red; capsule linear, $1\frac{1}{2}$ to 2 inches long.

Hab. : Darlington Range.—*H. Schneider.*

S. montanus, *Fitzg.*, *Austr. Orchids* part v. (So named from habitat, on mountains.) Stem very short and covered by the bases of old leaves. Leaves about 2 or 3 inches long, slightly falcate. Racemes drooping, bearing a few rather large nearly white flowers; segments ovate, deeply marked in the bud by a purple line, incurved so as to form in the expanded flower a cup. Labellum striped and spotted with red, this differing from *S. falcatus* in its shorter and thicker protuberance, broader and shorter wings, not meeting and overlapping, and its shorter and broader middle lobe. Capsule 3 or 4 inches long and rather-thick.

Hab. : Main Range.—*C. H. Hartmann.*

The above characteristics are from Austr. Orchids, i.e., and agree well with specimens I had placed with *S. falcatus*, and to which the present should, I think, form a variety rather than a separate species.

TRIBE NEOTTIÆ.

DIURIS, Sm.

D. sulphurea, *R. Br.*, Prod. 316; Flora Austr. vi. 330. Height variable, sometimes tall. Leaves rather broad. Flowers 2 to 5, yellow, blotched with purple at least at the base of the petals. Dorsal sepal about $\frac{1}{2}$ -inch long, embracing the column at the base, narrow-ovate and open upwards; lateral sepals longer, but not very long, often reflexed; petals also longer than the dorsal sepal. Labellum 3-lobed from the base as in *D. aurea*, but shorter than the dorsal sepal; lateral lobes broad, several-nerved and more or less undulate-toothed, middle lobe at least twice as long, very broad, but the sides closely reflexed, the disk with a single raised line along the centre gradually dying off above the middle of the lamina. Lateral lobes of the column acute, quite entire, as long as the anther; the wings joining at the base in the front of the column and continuing with the central keel of the labellum.—Flora Austr., l.c.

Hab: Eight-mile Plains, Nerang Creek.

D. punctata, *Sm.*, Exot. Bot. i. 13 t. 8; Flora Austr. vi. 326. (The flowers sometimes dotted.) Stems 1 to 2 feet high, sometimes more. Leaves 1 or 2, linear, 3 to 13 inches long, with 2 empty sheathing bracts above them. Flowers 2 to 5, blue or purplish, often dotted, but not blotched like several of the yellow species (the form just met with in Queensland of a lilac colour; to this Baron Mueller's name of *D. lilacina* would be appropriate), the acuminate bracts often but not always exceeding the ovary. Dorsal sepal in the typical form broadly ovate-oblong, 7 to 8 lines long; lateral sepals deflexed, very narrow, nearly 2 inches long. Petals broadly elliptical-oblong, nearly 1 inch long, including the short claw. Labellum about as long as the dorsal sepal, divided at the base into 3 lobes, the middle lobe obovate-oblong, the lateral ones about one-third as long, oblong-falcate, varying in breadth, entire or crenate; disk of the middle lobe with 3 longitudinal raised lines or plates starting from the base; the 2 lateral ones ending somewhat abruptly, and sometimes forming an acute tooth below the middle of the lobe, the central one not so prominent or obscure at the base, but continued further along the lamina. Lateral lobes of the column as long as the anther, lanceolate with undulate margins, more or less distinctly 1-nerved. Anther shortly acuminate, 2 lines long. Rostellum short, bifid, wings of the column very shortly produced at the base in front, not meeting but often continuous with the raised lines of the labellum.—Flora Austr., vi. 326.

Hab.: Nerang Creek.—*H. Schneider.*

CALADENIA, R. Br.

C. suaveolens, *Reichb.*, f. Beitr. 67; *Lyperanthus suaveolens*, *R. Br.* (Sweet-scented.) Glabrous but more or less glaucous, erect, about 14 inches high, with a single linear-lanceolate leaf 6 to 9 inches

long with 4 sheathing scales, 2 above and 2 below the leaf, the lower ones 2 or 3 inches long, somewhat velvety, and strongly striated with dark lines, the upper two or sheathing bracts lanceolate and about 1 inch long. Flowers 3, yellowish, and rather distant; subtending bract about 1 inch long, lanceolate; pedicel about $\frac{1}{2}$ -inch long, calyx-tube not quite so long; segments about $\frac{3}{4}$ -inch long, lanceolate-acuminate, the dorsal one incurved over the column, the two lateral segments deflexed with spreading points, two inner ones erect. Labellum about half the length of the other segments, the erect part broad with the erect lateral lobes rounded and not very prominent, the middle lobe ovate-oblong, obtuse, recurved; calli in 2 rows along the claw or erect part and between the lateral lobes often confluent, the remainder of the disk almost covered with small calli or papillæ. Column incurved and broadly winged. Anther with a prominent point.

Hab.: Stanthorpe—*John Davidson*. Nerang Creek.—*H. Schneider*.

SERIES CORONARIÆ.

Order LILIACEÆ.

TRIBE ASPHODELEÆ.

THYSANOTUS, R. Br.

SECTION HEXANDRÆ.

T. chrysantherus, *F. v. M.*, *Fragm.* v. 202; *Flora Austr.* vii. 40. (Name alluding to the yellow anthers.) Stock tufted, with fibrous roots not tuberous. Radical leaves rather numerous, very narrow, shorter than the scape. Scape slender, simple, 6 inches to above 1 foot high, bearing a single umbel of 3 to 6 flowers. Pedicels filiform, much longer than and sometimes 3 times as long as the perianth. Perianth usually about 4 lines long. Stamens 6, 3 of them longer but not very much longer than the 3 others. Seeds with a white strophiole.—*Flora Austr.*, l.c.

Hab.: Musgrave Electric Telegraph Station.—*T. Barclay-Millar*.

T. Baueri, *R. Br.* (After the celebrated botanical draftsman of that name.) Root-fibres swollen into ovoid or oblong tubers, generally distant from the stock. Leaves not numerous, narrow, usually much shorter than the scape, with rather broad scarious sheaths, but all withering very early. Scape from under 6 inches to 12 inches high, simple, including the inflorescence, or slightly branched in the upper part. Umbels mostly 2 or 3-flowered, and usually several, sessile along the upper part of the scape and its branches besides the terminal one, the scarious bracts often rather large. Pedicels rather shorter than the perianth. Perianth-segments varying in size but rarely under 4 or above 5 lines long, the opaque centres very dark in dried specimens. Stamens 6, unequal, but the 3 longer ones sometimes not much exceeding the others.—*Flora Austr.* vii. 42.

Hab.: Queensland.—*F. v. M.*, *Third Supp. Cens. Austr.* Pl.

Order COMMELYNACEÆ.

CARTONEMA, R. Br.

C. parviflorum, *Hassk.* in *Flora*, 1869, 365; *Flora Austr.* vii. 91. Plant erect, hoary, 1 to 1½ foot high. Leaves several at base of stem, linear, tapering from the base, usually long and narrow. Flowers distant on the spike, outer perianth-segments 3 to 4 lines long, inner ones yellow and usually more or less dotted with red small dots. Filaments very short. Anthers oblong, the cells opening in some specimens in terminal pores only, in others the slit extending to the base. Capsule small, glabrous.

Hab.: Musgrave Electric Telegraph Station, North Australia.—*T. Barclay-Millar.*

SERIES CALYGINÆ.

Order JUNCACEÆ.

TRIBE XEROTEÆ.

XANTHORRHŒA, Sm.

X. minor, *R. Br.*, *Prod.* 288; *Flora Austr.* vii. 114; *Bot. Mag.* 6297. Stem not produced above the surface of the ground. Leaves numerous, 1 to 2 feet long and from 1 to 2 lines broad, flat but thick or more or less triquetrous. Scape 2 to 4 feet high, the spike 3 to 8 inches long, ½ to nearly 1 inch diameter. Spathulate bracts, and outer perianth-segments shortly acuminate, about 2 lines long, quite glabrous, or minutely ciliate at the end; inner segments with white obovate spreading laminae scarcely 1 line broad. Stamens about twice as long as the perianth, very spreading. Anthers ovate-oblong, much smaller than in most species. Capsule acuminate and 7 to 8 lines long.—*Flora Austr.* vii. 114.

Hab.: Broadwater, in 1872.—*F. M. B.* Mount Gravatt.—*H. Tryon*, January 7, 1887.

SERIES NUDIFLORÆ.

Order PANDANEÆ.

FREYCINETIA, Gaud.

F. insignis, *Blume*, from *Rumphia*. Stem climbing; leaves very long, linear, acuminate (stiff), from base to apex prickly-toothed, with a terminal spadix shortly pedunculate; female flowers (in threes or fives), cylindrical; ovaries of 2 or 3 carpels.

Stem shrubby, thickly clothed with young branches, very loftily ascending, cylindrical, obliquely ringed with branches somewhat sloping down towards the ground, leafy, the wood loosely constructed of fleshy fibrils. Leaves approximately spiral (? in arrangement), with dilated membranous base, by turns overlapping each other, 2 to 4 feet long, 1 to 1½ inch wide, upwards outstretched and flat, the midrib (showing) beneath only towards the apex, margins towards base and apex not spiny,

leathery, rigid, terminal ones very numerous beneath the inflorescences and towards the base. Internally the substance is purplish and fleshy when more completely expanded. Inflorescence terminal, very beautiful, consisting of three or five spadices close together of unequal length, green, scale-like, petaloid, widely ovate, at first closely imbricated, afterwards open with appendages (rudimentary floral scales), some shapeless, narrow, fleshy, minute. The interior scales are small but very thick, whitish, arched, entire, of which several are high up in the apex, thickened in front, silky at the back, curved or erect alternately; others triangular-ovate, acuminate, pale-reddish, beneath concave, above spreading; exterior scales larger, purple, with apices (?) and also here and there denticulate, or it may be in leaves or stems metamorphosed. Spadices of female flowers $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long and 1 inch wide, with peduncles of $\frac{1}{2}$ -inch, afterwards increasing continually in size, rough, semi-terete, white, fleshy. Female flowers very much crowded, with the pistils in threes in one place or in fours in another, surrounded by minute sterile staminodia, of which the subulate filaments are united at the base; anthers apical, adnate, extrorse, oblong-cordate. Ovaries as long as they are small expand prismatically, apices truncate, stigmas disciform, smooth at the margins, in the centre 2 or 3-porous, very minutely papilloso covered, afterwards with apex formed into a neck, moderately elongated, somewhat pointed, attenuated; the stigma terminal, bifid, or ternate, at one time umbilicate, at another tuberculate; at times the disk shows itself with the margin thickened on both sides towards the axis. The ovary contains 2 to 3 placentas, longitudinal, parietal, which support the minute, anatropous, elongated-ellipsoid ovules, each attached by a short umbilical funiculus, 2-seriate mainly. Fruit-bearing spadices elongate-ellipsoid, with berries very densely aggregated, obconical, lateral, with succulent pulp, the inner substance homogeneous. Seeds in gelatinous sporophores, many-sided, cylindrical, at both ends a little obtuse, straightish, or somewhat curved longitudinally, striate, possessed of a very short umbilical funiculus, with appendages resembling costa, apex incurved towards the base. Chalaza coloured brownish, and at times conspicuous.

Hab.: Queensland.—*F. v. M.*

SERIES APOCARPÆ.

Order NAIADACEÆ.

TRIBE POTAMEÆ.

POTAMOGETON, Linn.

P. tricarinatus, *F. v. M.*, ined. in Herb. Kew; *A. Bennett* in Journ. of Bot., June 1887.

NOTE.—The Queensland specimens referred to by Mr. Bennett were collected at Aramac some years ago by Mr. C. W. de Burgh Birch, and were placed by me with *P. natans*. If so, the plant is of a more robust habit, and has larger leaves on shorter petioles; the nuts also have 3 prominent keels, the middle one almost wing-like and more decidedly toothed on its undulate edge.

P. Tepperi, *A. Bennett*, Jour. of Bot., June 1887. (After J. G. D. Tepper, of South Australia.) Stems lengthening, as in *P. natans*. Submerged (lower) leaves 4 inches long by $\frac{1}{2}$ -inch wide, the lamina tapering at either end; upper leaves ovate-lanceolate; floating leaves from oval with subcordate bases to ovate with tapering bases; 21 to 23-veined (3 by $1\frac{1}{4}$ inches), coriaceous, on long petioles enlarged gradually upwards. Spikes $\frac{3}{4}$ to 1 inch long, dense in fruit. Fruit nearly straight on the inner face, rounded, with three angles on the outer face, half-obovate, with a short beak forming a continuation of the inner face, with projecting processes irregularly distributed on the outer angles; embryo with its upper part incurved to half its depth.—*A. Benn., l.c.*

Hab.: Tooloomba Creek.—*F. M. B.*

Mr. Bennett points out that this new species is allied to *P. natans*, Linn., *P. polygonifolius*, Poir., and *P. Leschenaultii*, Cham.; and in herbaria has been mixed with specimens from Australia of *P. tricarinatus* and *P. natans*.

TRIBE NAIADEÆ.

NAIAS, Linn.

N. major, *Allioni*. Leaves linear, bordered by broad triangular acute prominent teeth so as to be almost pinnatifid, $\frac{1}{2}$ to nearly 1 inch long, dilated at the base into a very short broad-toothed sheath not different in texture from the lamina nor produced into stipular lobes, "aculeate on the back as well as the stem," but the prickles few or so minute as to be difficult to see on the dried specimens. Flowers diœcious. Male perianth oblong, consisting of a thin membranous sac entirely enclosing the anthers, 2 or 3-toothed and at length bursting irregularly at the top. Anthers sessile, 4-celled. Female flower a single oblong carpel with 2 or 3 linear stigmatic lobes, the ripe nutlet about $1\frac{1}{2}$ line long.—*Flora Austr.* vii. 181.

Hab.: Flinders River.—*F. v. M.* in *Flora Austr.*

Baron Mueller also writes me word that he has had specimens of this Northern water-weed from the Tweed River.

SERIES GLUMACEÆ.

Order GRAMINEÆ.

TRIBE PANICEÆ.

PANICUM, Linn.

P. maximum, *Linn.* (Guinea-grass.) (*P. jumentorum*, Pers.) An erect tall grass 5 to 10 feet high with long rather broad lanceolate-linear leaves ciliate at the base and ligule. Panicle large and loose with numerous capillary much-divided branches, the lower one usually whorled; spikelets numerous, all pedicellate, $1\frac{1}{4}$ to $1\frac{1}{2}$ line long, obtuse. Glumes, lowest short, ovate-rounded, subincurved, 2 superior, little exceeding the fertile, flower 3 to 7-nerved; third male with a palea; fertile flower transversely wrinkled, half-terete.

Hab.: A tropical African grass, now naturalised in Queensland and many other countries.

TRIBE ANDROPOGONEÆ.
POGONANTHERUM, Beauv.

Spikelets in pairs, 1 sessile, the other pedicellate in a simple spike, the rhachis articulate, each spikelet surrounded by long silky hairs. Pedicellate spikelet with 1 female flower; sessile one with 1 hermaphrodite and 1 male flower below it. Glumes all thin and transparent, the lowest 3-nerved, awnless, the second keeled, with a long awn, the third smaller and awnless, empty, or with a male flower, the terminal flowering one very small with a long awn, the awns twisted.—*Benth.*, *Flora Hongkongensis* 421.

P. saccharoideum, *Beauv.* A slender branching often tufted grass, the stems leafy throughout and from 1 to 2 feet high, nodes slightly bearded. Leaves narrow, spreading, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, tapering to fine points, sheaths slightly hairy but with long silky hairs at the top similar to the ligula. Spike from 1 to $1\frac{1}{2}$ inch long on a slender thread-like peduncle, the silky hairs and awns often assuming a golden hue. Spikelets about 1 line long, the 5 spreading hair-like awns $\frac{1}{2}$ to $\frac{3}{4}$ -inch long and more or less twisted.

Hab.: Johnstone River.—*W. R. Kefford*, 1884.

The plants brought to Brisbane by Mr. Kefford are now (March) in full bloom. Baron von Mueller writes me that he has received this pretty grass from somewhere in Queensland, but does not state the locality.

TRIBE CHLORIDEÆ.

Chloris unispica, *F. v. M.*, *Fragm.* vii. 118; *Flora Austr.* vii. 611; *Synopsis Queensland Flora* 658.

It is interesting to note that this rare grass, which until now was only known from specimens forwarded by Mr. E. Bowman, from Herbert's Creek, to Baron Mueller about 1870, has been again met with by Dr. Chas. Prentice within a few miles of Brisbane.

TRIBE FESTUCEÆ.

ERAGROSTIS, Beauv.

SECTION MEGASTACHYA.

E. eriopoda, *Benth.* (Referring to the woolly bases of the stalks.) Stems 1 to $1\frac{1}{2}$ foot high, somewhat bulbous and densely woolly at the base. Leaves very narrow, short, the lower sheaths pubescent or hirsute. Panicle reduced to an interrupted spike, or divided into a spreading panicle. Spikelets nearly sessile, scattered or in pairs, very flat, 3 to 9 lines long, about 1 line broad, with 10 to 30 or more flowers. Glumes closely distichous, but rather spreading, obtuse, almost hyaline with a dark-green nerve on each side, glabrous. Palea as long. Stamens 2, with large anthers.—*Flora Austr.* vii. 648.

Hab.: Inland, north-west.

E. Brownii, *Nees*. Var. *patens*, *Benth.* in *Flora Austr.* vii. 647. This grass has a loose, wide, spreading delicate panicle, with smaller spikelets, which are usually pedicellate.

Hab.: In the parks about Brisbane.

POA, Linn.

P. cæspitosa, var. latifolia, Flora Austr. vii. 652. This is a tall broad-leaved form, found here and there on rich mountain scrub lands. At first sight one would almost take it for a small growth of Guinea-grass—*Panicum maximum*--the leaves being often over $\frac{1}{2}$ -inch wide, stalks and leaves nearly smooth, panicle 8 to 10 inches long and 6 or more inches broad.

Hab.: Illawarra, N.S.W.—*Johnstone*. Bunyong Mountains, Vic.—*F. v. M.* Mount Mistake, Queensland.—*Bail*.

P. nodosa, Nees. (Alluding to the knot-like base of stems.) Stems about 2 feet high, forming at the base from 1, 2, or 3 superposed globular or ovoid nodules, 3 or 4 lines diameter. Leaves long, narrow, flat, usually scabrous. Panicle loose, narrow or spreading. Spikelets 3 to 4 lines long, 5 to 8-flowered, rather narrow at first, with closely appressed glumes, about 2 lines long, 5-nerved, without the woolly hairs at the base of most *Poa*, but shortly ciliate-pubescent on the keel and margins below the middle. Palea nearly as long, the keels minutely ciliate-pubescent or glabrous. Grain free.—Flora Austr. vii. 653.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

GLYCERIA, R. Br.

G. ramigera, F. v. M., Flora Austr. vii. 659. (Name alluding to branching habit of grass.) A tall, glabrous, rigid grass, branching at the base, and often bearing clusters of branches higher up. Leaves convolute and flat, few and short on the flowering stems. Panicle 4 to 8 inches long, loosely ovate or at length very spreading. Spikelets rather numerous, usually 3 to 5 lines long, with 6 to 12 flowers, but sometimes longer, the rhachis glabrous, outer glumes narrow, hyaline, acute, faintly 1-nerved; flowering glumes distant, about $1\frac{1}{2}$ line long, broad and concave, hyaline, 3-nerved, the nerves all short, the central one not reaching above the middle.—Flora Austr. vii. 659.

Hab.: Queensland.—*F. v. M.*

Class III. ACOTYLEDONS or CRYPTOGAMS.**Order LYCOPODIACEÆ.****LYCOPODIUM, Linn.**

L. densum, *Labill.*, Pl. Nov. Holl. ii. 104 t. 251. Stems from a short creeping base, erect rigid, usually 1 to 1½ but sometimes 2 to 4 feet high, very densely branched in the upper part. Leaves crowded all round, those of the main stem lanceolate with scarious tips and often 2 lines long, those of the branches imbricate and scarcely 1 line long. Spikes numerous, terminal, erect and sessile, from under ½-inch to 1 inch long. Bracts ovate-lanceolate, with spreading tips often scarious on the margins.—*Flora Austr.* vii. 676.

Hab.: Baron von Mueller writes me that he has received specimens of this species from Queensland.

Order FILICES.**TRIBE MARATTIÆ.****LYGODIUM, Sw.**

L. dichotomum, *Sw.* Stem climbing. Primary petiole so much reduced that the fork seems almost to spring from the main rhachis; secondary 1 to 2 inches long, firm, naked. Pinnules digitate, with 5 to 6 lobes reaching nearly down to the base, or once or even twice forked; ultimate barren divisions 4 to 8 or even 12 inches long, ½ to ¾ inch broad, the fertile ones contracted, sometimes so much so that the lamina is nearly lost; the spikes 1 to 2 lines long, in close marginal rows; texture sub-coriaceous; surface naked.—*Baker* in *Synopsis Filicum*.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar*.

The portion forwarded was sterile and small, but doubtless belonged to the above species.

TRIBE HYMENOPHYLLÆ.**TRICHOMANES, Linn.**

T. caudatum, *Brackenr.*, Ferns U. S. Expl. 256 t. 36 f. 5; *Flora Austr.* vii. 703. (Alluding to the supposed tail-like apex of frond.) Rhizome creeping, wiry, clothed with hair-like reddish-brown scales. Fronds 3 to 6 inches long, 1 to 1½ inch broad, pinnate, with bipinnatifid pinnae, some of which are often elongated at the end, similar to the apex of the frond; segments linear, 1-nerved, the upper ones confluent in a tail-like apex. Stipes about 2 inches long, glabrous except quite near the base, which has similar scales to the rhizome. Indusium on the lower inner lobes of the segments, urceolate-cylindrical, the receptacle more or less exserted.

Hab.: Tallebudgera Creek.—*H. Schneider*.

TRIBE POLYPODIEÆ.

ASPLENIUM, Linn.

A. furcatum, *Thunb.*; *Hook.*, Spec Filic. iii. 165. (*A. præmorsum*, Swartz; R. Br. Prod.) Rhizome thick, dark-brown, scaly-hairy. Fronds tufted, 6 to 18 inches high, pinnate or bipinnate, slightly scaly-hairy. Pinnæ lanceolate, mostly $1\frac{1}{2}$ to 2 inches long, deeply pinnatifid or pinnate; segments varying from oblong-cuneate, toothed, and confluent, to linear-cuneate, distinct, and deeply 2 to 4-lobed, the segments or lobes all coriaceous, denticulate at the end, striate with a few diverging veins. Sori few, large.—*Flora Austr.* vii. 748.

Hab.: Bunya Mountains, Falls north-west of Mowbunan.—*Thos. Tate.*

Order CHARACEÆ.

NITELLA, Agardh.

SECTION POLYGLUCHIDES.

N. oligospira, *A. Br.* Plant rather small and slender, flexuose; the sterile and fertile whorls of somewhat similar form, loose, the old foliage duplicate or subtriplicately forked, the ultimate segments (when tertiary very short) 2-celled, the second cell ending in a sharp point. Sporangia solitary, with a short obtuse crown. Nucules subglobose, yellowish-brown, prominently 6-gyrate, 0, 26-0, 28 mm. long.—*Monatsberichte der Berl., Akad.* 1885, p. 357.

N. o. var. australiensis, *O. Nordstedt.*

Hab.: Ithaca Creek, Taylor's Range.—*H. Tryon.*

Dr. O. Nordstedt, a specialist on these plants, and who determined this form, after remarking that it is the first time a representative of the section *Polygluchides* (*trachydactylæ*) has been found in Australia, states:—

"The place of this Australian form cannot be fixed exactly, because the sporangia are not ripe. Yet it seems nearest the form *indica* of *oligospira*; the habit of *N. pseudostabellata*, *A. Br.*, f. *muscosa*, Nordstedt, New Zealand. Branchlets 4-5, divided into 3-4; ultimate rays 2-3.—*O. Nordstedt* in litt. This species is found in Asia, Comora Island; f. *javanica*, Java; f. *indica*, E. Indies, Pegu, Lahore, South America, Caracas, Brazil; var. *Wrighti* (*A. Br.*), N. America, W. Texas.—*N. oligospira*, *A. Braun*, in *Monatsber. der Berl., Akad.* 1885, p. 357, and in *Fragmenti sine Monographie der Characeæ* (ed. by *O. Nordstedt*), p. 67."

The above was received through A. Bennett, of Croydon, England.

Order MUSCI.

TRIBE DICRANEÆ.

DICRANELLA, C. M.

Small slender mosses growing on the ground or rocks. Leaves narrow, loosely areolate at their base, appressed when dry; perichatral leaves longer below. Thecæ (capsules) on erect slender peduncles, sometimes arched; operculum subulate-acuminate, peristome

of somewhat short teeth. Inflorescence diœcious, rarely monœcious.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 28.

The above generic description is wanting at page 725 of Syn. Queensl. Flora, and at page 65 of the Supplement.

D. tricuris, *C. M.* (*Angstrœmia Diobelon* in Linnæa xxxv. 616.)

Hab.: Queensland.—*F. v. M.*

D. Baileyana, *C. M.*

Hab.: Brisbane River.

HOLOMITRIUM, Brid.

H. Muelleri, *Hampe et C. M.* in Linnæa, 1870, 513.

Hab.: Queensland.—*F. v. M.*

LEUCOLOMA, Brid.

Slender cœspitose mosses, with narrow setaceous leaves, areolate with various formed cells, margins narrowly hyaline, the inner part obscurely papillose, wings conspicuous; perichæatial leaves small. Capsule small on short erect stalk, operculum subulate, peristome-teeth broad.

L. clavinervis, *C. M.*

Hab.: Tropical Queensland.

L. Sieberi, f. rigida.

Hab.: Mount Archer.—*C. T. Musson.*

PÆCILOPHYLLUM, Mitt.

Tufted mosses growing on decayed wood, the stems more or less elongated, moderately divided. Leaves setaceo-acuminate, the cells near the margin elongate, narrow, hyaline, those of the middle of the leaf shorter and chlorophyllous, sometimes papillose; wings of the leaves conspicuous, perichæatial ones convolute at the base. Capsule on elongated peduncles, oblong-cylindrical, operculum subulate; peristome of somewhat broad teeth.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 92.

The above generic description is wanting at page 725 of Syn. Queensl. Flora.

CAMPYLOPUS, Brid.

C. introflexus, *Hedw.*

Hab.: North Pine, Port Curtis, and Pimpama.

C. Woollsii, *C. M.*

Hab.: Nerang Creek.

TRIBE GRIMMIEÆ.

GLYPHOMITRIUM, Brid.

Mosses usually growing on rocks, seldom on trees, forming cushion-like tufts. Stems more or less elongated and densely leafy. Leaves subulate, canaliculate, firm, thickly nerved, crisp when dry, cells

obscure. Capsule on often somewhat short peduncles, oval-cylindrical; operculum subulate, peristome teeth nearly always unequally divided, sometimes the divisions thread-like; calyptra with smooth folds or sometimes dentate.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 105.

The above generic description is wanting at page 726 of Syn. Queensl. Flora.

TRIBE LEUCOBRYEÆ.

LEUCOBRYUM, Hampe.

L. candidum, *Schwægr.*

Hab.: Main Range.

TRIBE ORTHOTRICHEÆ.

MACROMITRIUM, Bridel.

M. Archeri, *Mitt.*, Tasm. Flora ii. 183. (*M. linearifolium*, C. M.)

Hab.: Mount Archer.—*C. T. Musson.*

M. caloblastum, *C. M.*

Hab.: On bark, Ithaca Creek.

TRIBE HYOPTERYGIEÆ.

HYOPTERYGIUM, Bridel.

H. (Lopidium) pinnatum, *Hampe.*

Hab.: Queensland.—*F. v. M.*

TRIBE SPLACHNEÆ.

AULACOPILUM,

A. Hodgkinsoniæ, *Hampe. et C. M.*

Hab.: Pine River.

TRIBE FUNARIEÆ.

EPHEMERUM, Hampe.

Very small mosses. Stems almost wanting, often springing from green confervoid filaments. Leaves narrow, the perichætical ones much larger than the others. Capsule globose, immersed, delicate. Calyptra small, split on one side or quite lobed.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 239.

The above generic description is wanting at page 729 of Syn. Queensl. Flora.

FUNARIA, Schreb.

F. crispula, *J. H. et Wils.*

Hab.: Three-mile Scrub.

TRIBE BRYEÆ.

RHIZOGONIUM, Bridel.

R. Hookeri, *C. M.* (*R. mnioides*, Wils. Var. *contortum* et var. *lutescens*, *J. Hook.*, Fl. Tasm. ii. 216. *R. Mossmannianum*, C. M.)

Hab.: Mount Mistake and Mary River.

BRYUM, Linn.**B. subcrispatulum**, *C. M.*

Hab. : Taylor's Range.

TRIBE HOOKERIEÆ.

DISTICHOPHYLLUM, Dozy et Molk.

Mostly small mosses found growing on decayed wood and rocks, with erect or ascending, sometimes procumbent, simple or branching stems. Leaves broad, acute or obtuse, with often a cartilaginous margin; cells short, rounded, hexagonal, pellucid. Capsule on a rather long peduncle, teeth of the peristome with an external unbroken or divided lamina, processes of the inner peristome keeled. Calyptra fringed at the base.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 393.

The above generic description is wanting at page 67 in Suppl. to Syn. Queensl. Flora.

TRIBE NECKERIÆ.

HEDWIGIA, Ehrhart.

(Name in honour of John Hedwig, a celebrated muscologist.)

Loosely tufted, creeping or suberect, branched, monœcious mosses. Leaves imbricate, nerveless, concave, with diaphanous erose apices. Cells small, quadrate. Fruit-stalks very short, terminal. Capsule incurved in the perichætium, globose; annulus and teeth none. Operculum plano-convex. Calyptra small, conic, glabrous or hairy.—New Zeal. Flora ii. 423.

H. Jaratzkæ, *C. M.*, Rev. Bryol, 1876, 3.

Hab. : Queensland.—*F. v. M.*

SPLACHNOBRYUM.**S. Baileyi**, *Brotherus*.

Hab. : On brickwork, Brisbane.

PTEROBRYUM, Hornsch.

Mosses usually found growing on the stems of trees; the branches elongated, fertile, simple in the lower part, and stipiform; in the upper part divided, branched, and forming a pinnate or tree-like frond, or sometimes the branchlets pinnate throughout their whole length. Leaves smooth or plicate, everywhere equal or compressed, with narrow cells. Capsule immersed or exserted; peristome small, depressed; the teeth cohering with each other and with the rudiments of the inner peristome. Calyptra small and entire.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. p. 19.

The above generic description is wanting at page 732 of Syn. Queensl. Flora, and page 68 of the Supplement.

P. acutum, *Mitt.*

Hab. : Scrubs near Brisbane.

METEORIUM, *Brid.***M. Baileyi**, *Brotherus.*

Hab. : Rockingham Bay.—*K. Broadbent.*

NECKERA, *Hedw.***N. hymenodonta**, *C. M.* (*N. pennata*, *Wil.*)

Hab. : Mount Mistake.

POROTRICHUM, *Bridel.*

Mosses found growing on the ground, rocks, and at the roots of trees. Primary stems rhizomatiform, branch arising from a sparsely leaved stipe, bearing branchlets on the upper part, and sofrondose; these branchlets are sometimes flagelliform and proliferous. Leaves everywhere equal or compressed and unsymmetrical, 1-nerved or seldom 2-nerved; perichæatial leaves small, areolate, with cells which are narrow, sometimes shortened; processes inside of the peristome, perforated on the keel, with cilia intervening, and resting when present on the membrane. Calyptra small.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 458.

The above generic description is wanting at page 733 of Syn. Queensl. Flora.

P. Schlosseri, *C. M.*

Hab. : Gympie.

TRIBE STEREODONTEÆ.

ENTODON, *C. M.***E. Toowoombæ**, *C. M.*

Hab. : Queensland.—*F. v. M.*

ISOPTERYGIUM, *Mitt.*

Stems procumbent, with fasciculate branches of unequal length. Leaves compressed, distichous, 3 upper series scarcely obvious, the 3 lower absent, very shortly 2-nerved. Cells narrow, smooth. Capsule inclined or horizontal, oblong, the hairs of the inner peristome united.—*Mitt.*, South Amer. Moss in Journ. Linn. Soc. xii. p. 21.

The above generic description is wanting at page 734 of Syn. Queensl. Flora.

I. Baileyanum, *C. M.*

Hab. : Kedron Brook and Port Curtis.

I. robustum, *Broth.* (sp. nov.)

Hab. : On rock-work, Bowen Park. Allied to *I. Teysmanni*, of Java, says Dr. Brotherus.

ECTROPOTHECIUM, *Mitt.*

Mosses growing on the earth or wood, with feather-like stems, the leaves glossy, for the most part falcate-secund. Capsule or theca with the mouth at length gaping.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 510.

The above generic description is wanting at page 734 of Syn. Queensl. Flora.

E. reticulatum, *Dozy et Molke*.

Hab. : On rock-work, Bowen Park.

TRIBE HYPNEÆ.

FABRONIA, Raddi.**F. Scottiæ**, *C. M.*

Hab. : On rock-work, Bowen Park.

ANACAMPTODON, Bridel.

(Name alluding to the teeth of peristome being reflexed.)

Slightly more robust than *Fabronia*, lax or dense, implexo-cæspitose, dark-green, of soft texture. Leaves ovate-lanceolate, plano-concave, full of chlorophyl, the costa lax; thin, terminating beyond the middle, margin entire, cell network somewhat narrow rhomboidal. Flowers monœcious. Perichætium few-leaved, covering the oblong subpilose vaginulas. Calyptra whitish, produced beneath the operculum. Capsule oval, oblong, with a rather thick neck, constricted beneath the dried-up mouth, somewhat solid. Operculum continued from a convexo-conical base into a rather short and straight or somewhat long oblique beak. Annulus wanting. Peristome of *Orthotrichum*, double; external teeth 16, lanceolate, entire, approximate in pairs, distantly articulate, marked by a straight divisional line, pale, reflexed when dry; internal teeth 16, filiform. Spores minute, greenish-yellow.—*W. P. Schimper*, Syn. Mus. Eur. pp. 585-586.

A. Fortunei, *Mitt.*Hab. : Mount Perry.—*J. Keys*.**HYPNODENDRON**, C. Muell.

The primary stems creeping rhizomatiform, terminating in erect branches, simple below, decomposed and frond-like above. Leaves at the middle of the fronds equal or unequal and compressed. Theca or capsule inclinate or horizontal, plicate. Peristome perfect.—*Mitt.*, South Amer. Mosses in xii. Journ. Linn. Soc. p. 23.

The above generic description is wanting at page 735 of the Syn. Queensl. Flora, and page 69 of Supplement.

H. eflagellare, *Agstr.*

Hab. : Brisbane scrubs.

HYPNUM, Dill., Hedw.

Mosses found on rocks, trees, or on the ground, with shining or somewhat dull, smooth, plicate leaves; cells elongate-areolate, with narrow walls. Peduncles often rough and somewhat thick. Operculum rigid conical or rostrate.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 545.

The above description is wanting at page 69 of Supp. to Syn. Queensl. Flora.

H. microflagellare, *C. M.*

Hab. : Brisbane scrubs.

THUIDIUM, Schimp.

Mosses found on the ground, amongst rocks, and about trees. Of tender habit, with elegantly bipinnately branched stems. Leaves of a deep or yellowish-green colour, all those of the stem remote and more or less long, acuminate, those of the branchlets ovate, oblong, somewhat obtuse, frequently concave and imbricate, sometimes complanate; perichæatial leaves with the cells narrow, pellucid. Theca or capsule cylindrical, oblong, or oval.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. p. 572.

The above description is wanting at page 735 of Syn. Queensl. Flora, and page 69 of the Supplement.

TRIBE SKITOPHYLLÆ.

FISSIDENS, Brid.**F. undato-decurrens**, *C. M.*

Hab.: Brisbane scrubs.

RHYNCHOSTEGIUM, Schimper.

Minute or moderately large mosses growing on the ground or over rocks, with spreading branches and branchlets, scantily rooting. Leaves patent on all sides or appressed to the stem, those of the stem and branches similar, lanceolate-acuminate, ovate and oblong, having no midrib or one very thin and simple, of firm consistency, shining, seldom opaque; areoles narrowly rhomboid, making a slender network; primordial utricle distinct. Flowers monœcious, seldom diœcious. Operculum bent or horizontal, ovate; capsule with a subulate beak; peduncle smooth or very seldom rough. The somewhat large teeth of the peristome lamellate, processes subentire, ciliola filiform.—Syn. Musc. Eur. p. 678.

The above generic description is wanting at page 735 of Syn. Queensl. Flora.

TRIBE POLYTRICHEÆ.

POLYTRICHADELPHUS, *C. Muell.*

Dwarfish or tall mosses, growing on the ground. Stems nearly simple, forked, or nearly fasciculate, and attains tree-like form. Leaves rigid, canaliculate, with a wing bearing nerve on the inner side. Capsule on somewhat thick elongated peduncles, apex of calyptra setose or naked.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. p. 607.

The above description is wanting at page 735 of Syn. Queensl. Flora.

Order HEPATICÆ.

ACROLEJEUNEA.**A. Wildii**, *Stephn.*

Hab.: Pimpama.—*C. Wild.*

ANTHOCEROS, Micheli.**A. lævis**, Linn.

Hab. : Queensland.—*F. v. M.*

CEPHALOZIELLA, Spruce.

Very small or minute plants, creeping over mosses or other hepatics. Stem for small plant stout with the interior cortical cells all of the same shape, at the base and at the sides subrhizomatous, but without flagelli; leaf-bearing branches in almost all terminal (postici), exceptionally in a few and normally in a very few lateral. Lower leaves succubous, those above somewhat spreading and transverse, rarely exceeding the breadth of the stem, very often cuneate, half to a further extent bifid, carinate, with the segments either subcomplicate, partly folded one within the other, or diverging, altogether entire or subdenticulate, seldom spinulose; leaf-cells small or minute diam. $\frac{1}{50}$ – $\frac{1}{70}$ mm., subquadrate leaflet (foliola) where present small, entire and bifid, often in one and the same species; at one time present, at another absent. Female flowers very often terminal on the stem itself, in other species cladogenous or variously situated. Bracts somewhat large, tristichous, bilobed, denticulate on the lobes and sides, or with little spines, the latter alone very often highly connate with the one behind and forming a cup. Perianth generally narrow, sharply prismatic, the keels seldom only three, usually three, four or five (but rarely six) in the same species; mouth denticulate, rarely unarmed. Capsule oblong, globose. Androecium occupying a part of the stem itself or of the larger branch, situated in the middle of it or apical, the leafy branch which follows it not reduced (smaller), rarely reduced to an amentiform branch.—*Trans. Bot. Soc. Edinb.* xv. 399, 1885.

C. Brotheri, *Stephn.***CHILOSCYPHUS**, Corda.**C. argutus**, *Nees.*

Hab. : Ithaca Creek.

FIMBRIARIA, *Nees.***F. longibarbata**, *Stephn.*

Hab. : Queensland.—*F. v. M.*

F. Drummondii, *Tayl.*

Hab. : On damp earth, Brisbane River.

FOSSOMBRONIA, Raddi.

Fronds prostrate, creeping, lobed pinnately; lobes succubous, distichous, quadrate, 3 to 5-lobed, flaccid. Stipules none. Fruit terminal, or lateral by the growth of the stem. Involucre of subulate leaves, adnate to the perianth, which is campanulate; mouth large,

lobed. Calyptra pyriform. Capsule on a short fruit-stalk, globose, irregularly 4-valved; elaters short with 2 or 3 spiral fibres. Antheridia naked on the under surface.—New Zeal. Flora.

F. papillata, *Stephn.*

Hab.: On side of hills, Petrie terrace.

FRULLANIA, Raddi.

F. serrata, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

F. rubella, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

F. spinifera, *Tayl.*

Hab.: Brisbane River.

F. monocera, *Tayl.*

Hab.: Taylor's Range, on bark.

F. fugax, *Tayl.*

Hab.:

F. squarrosa, *Nees.*

Hab.: On sandy soil, Brisbane River.

F. seriata, *Gottsch.*

Hab.: On wood, Brisbane River.

F. Wildii, *Stephn.*

Hab.: On bark, Brisbane River.—*C. Wild.*

JUNGERMANNIA, Linn.

Stems prostrate, creeping. Leaves succubous, distichous, entire or lobed. Stipules usually present. Fruit terminal on the main stem or on a lateral branch. Involucral leaves free. Perianth tubular, angular; mouth toothed or lacinate; calyptra usually included. Capsule ovoid or globose, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia in the bases of inflated perigonal leaves.—*Hook.*, New Zeal. Flora ii. 520.

J. montana, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

LEJEUNIA, Maria Libert.

L. tumida, *Mitt.*

Hab.: Queensland.—*F. v. M.*

L. trichomanes, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

LEPIDOZIA, *Nees.*

Stems creeping, often very minute and slender, throwing out rootlets from the ventral surface. Leaves incubous, obscurely distichous, 4-toothed or 4-cleft. Stipules present. Fruit terminal

(and antheridia) on proper branches from the underside of the stem. Involucral leaves numerous, short, broad-toothed. Perianth elongate, 3-angled, the face hollow, mouth toothed. Calyptra membranous. Capsule on slender fruit-stalks, globose; elaters with 2 spiral fibres. Antheridia solitary in the bases of conduplicate, 2 to 3-cleft, perigonal leaves.—*Hook.*, *New Zeal. Flora* ii. 320.

L. capillaris, *Lindenb.*

Hab.: Logan River.

L. patentissima, *Hook. f. et Tayl.*, *Flora Antart.* i. 158 t. 65 f. 5.

Hab.: Queensland.—*F. v. M.*

LOPHOCOLEA, *Nees.*

Stems prostrate, creeping. Leaves succubous, distichous, flaccid, decurrent at the base, 2-multifid. Stipules 2 to 4-cleft. Fruit terminal. Involucre of 2 to 4 large leaves. Perianth tubular below, 3-gonous above; lobes toothed and crested. Calyptra short, membranous, rupturing transversely at the base or irregularly at the apex. Capsule on a slender fruit-stalk, oblong; elaters with 2 spiral fibres. Antheridia in the saccate dorsal bases of perigonal leaves, which resemble the cauline.—*New Zeal. Flora.*

L. heterophylloides, *Nees.*

Hab.: Near Brisbane, on damp earth.

LUNULARIA, *Mich.*

L. vulgaris, *Mich.*

Hab.: On rocks, Brisbane River.

MADOTHECA, *Du Mort.*

M. Stangeri, *Gottsch.*

Hab.: Main Range.

MASTIGOBRYUM, *Nees.*

Stems creeping and rooting or ascending, large, sparingly branched, giving off numerous filiform leafless shoots. Leaves distichous, incubous, usually 3-fid at the apex; stipules toothed, often connate, with the leaves above them. Fruit (and antheridia) terminal, on short proper branches, arising from the bracts and stipules. Involucral leaves small, narrow, incised at the apex. Perianth elongate, 3-angular; mouth 3-toothed. Calyptra membranous. Capsule globose, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia 2 in the axil of each perigonal leaf.—*New Zeal. Flora.*

M. Mittenii, *Stephn.*

Hab.: Taylor's Range.

NOTEROCLADA, *Tayl.*

Fronds appressed to the ground, creeping, rooting, stout, forked, pinnately lobed; lobes broad, sessile, decurrent, soft, quite entire.

Stipules none. Fruit lateral or terminal. Involucre confluent with the perianth, erect, cylindrical or compressed; mouth somewhat 2 or 4-lobed. Capsule subglobose, on a slender fruit-stalk, 4-valved or bursting irregularly; elaters short, with 2 (?) spiral fibres. Antheridia immersed in the back of the stem.—New Zeal. Flora.

N. confluens, *Tayl.*

Hab.: On damp earth, Brisbane River.

PHRAGMICOMA, Du Mort.

P. plicatiscypha, *Hook. et Tayl.*

Hab.: Queensland.—*F. v. M.*

P. Keppelina, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

PHYSIOTIUM, Nees.

P. articulatum, *Lindenb.*

Hab.: Queensland.—*F. v. M.*

P. Muelleri, *Gottsch.*

Hab.: Queensland.—*F. v. M.*

PLAGIOCHASMA, Lehm. et Lindenb.

Frond short, thick, rigid. Inflorescence monœcious (?). Fertile receptacles stalked, capitate, 2 to 4-lobed; lobes small, ascending. Involucres 4, large, erect, 1-capsuled, concealing the lobes, ovoid, 2-valved. Perianth none, calyptra fugacious. Capsule almost sessile, horizontal, globose, splitting irregularly; elaters moderately long; spores enclosed in a transparent wrinkled membrane. Antheridia immersed in sessile disks.—*Hook.*, New Zeal. Flora ii. 544.

P. australe, *Nees*, New Zeal. Flora.

Hab.: Queensland.—*F. v. M.*

PLAGIOCHILA, Nees et Montagne.

(Referring to the obliquely tipped leaves.)

Stems from a creeping rhizome, erect, ascending, or creeping, often large and rigid. Leaves distichous, succubous, dorsal margin decurrent and reflexed, often obliquely. Stipules in some species wanting. Fruit terminal or lateral. Involucral leaves 2, larger than the cauline. Perianth compressed at right angles to the insertion of the leaves; mouth truncate, entire or toothed. Calyptra membranous. Capsule on a long or short fruit-stalk, ovoid; elaters with 2 spiral fibres. Antheridia covered by small, imbricated, ventricose, perigonial leaves.—*Hook.*, New Zeal. Flora ii. 504.

P. Lyallii, *Mitt.*, New Zeal. Flora.

Hab.: Queensland.—*F. v. M.*

PTYCHANTHUS.

P. squarrosus, *Mont.*

Hab.: Rockingham Bay.—*K. Broadbent.*

RADULA, *Nees.***R. reflexa**, *N. et M.*

Hab.: Queensland.—*F. v. M.*

R. Mittenii, *Stephn.*

Hab.: Queensland.—*F. v. M.*

R. acutiloba, *Stephn.*

Hab.: On bark near Brisbane.

REBOULIA, *Nees.*

Fruondose, growing on rocks or earth, with the habit of *Marchantia*; midrib strong, broad. Female receptacle peduncled, flat, conical, or hemispherical, 1 to 6-lobed, almost to the middle; lobes thick, their margins forming a 2-valved involucre containing 1 capsule. Perianth none. Calyptra ovoid, soon rupturing, leaving a cup as the base of the capsule. Capsule exserted, subglobose, membranous, lacerate or suboperculate; elaters with 2 spirals; spores tuberculated. Male receptacle sessile, discoid.—New Zeal. Flora.

R. hemisphærica, *Raddi.*

Hab.: Brisbane River banks, on rocks.

RICCIA, *Micheli.***R. multifida**, *Stephn.*

Hab.: Queensland.—*F. v. M.*

R. muscicola, *Stephn.*

Hab.: Queensland.—*F. v. M.*

Order LICHENES.

TRIBE COLLEMEL.

COLLEMA, *Ach.***C. furvum**, *Ach.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

C. leucocarpum, *Tayl.* (*Leptogium glaucophthalmum*, *Nyl.*)

Hab.: Mount Mistake.—*J. F. Shirley.*

LEPTOGIUM, *Ach.***L. tremelloides**, var. **pichneum** (?)

Hab.: Helidon.—*J. F. Shirley.*

L. hypotrachyum, *J. Muell.*

Hab.: Queensland — *F. v. M.*, *Vict. Nat.*, Oct. 1887.

TRIBE CALICIEI.

CALICIUM, Ach.

(So named from the cup-like apothecia.)

Thallus granular, powdery, or evanescent, very rarely scaly or obsolete. Apothecia black, stipitate, rarely sessile, in turbinate capitula, globose; spores brown or blackish, simple or septate. Minute often microscopic Lichens, found on rocks and old wood.—New Zeal. Flora vol. ii. 558.

C. hyperellum, var. validius, *C. Knight*. Thallus pale yellowish, obscured by the dark colour of the dead wood below, very thinly leprose, spreading plainly round the apothecia, but indistinct between them. Apothecia following the lines of the slightly fissured wood, shortly stipitate, 2-4 mm., dark brown, almost black; stipes cylindrical; apothecia cup-shaped, coated with a dusty mass of spores. Spores minute, .005 × .0025-.003 mm., bilocular, slightly contracted at the septum; loculi hemispherical or nearly so.—*J. F. Shirley's Paper to Roy. Soc. Qd.*, 10th Feb. 1888.

Hab.: On dead wood, Brisbane Racecourse, Cabbage-tree Creek, and Redbank Plains.—*J. F. Shirley*.

TRIBE CLADONIEI.

CLADONIA, Hoffm.

C. fimbriata, *Schærer*.

Hab.: Stradbroke Island—*Bail.*; and Main Range—*Hartmann*.

C. fimbriata, var. radiata, *Fries*.

Hab.: Mount Mistake.

C. lepidula, *Krempelhuber*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. pityrea, *Flærke*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE STEREOCAULEI.

STEREOCAULON, Schreb.

S. arbascula, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. nanum, *Ach.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE SIPHULEI.

EUMITRIA, Stirton.

E. elegans, *Stirton* = *USNEA ELEGANS*, *Stirton*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE RAMALINEI.

RAMALINA, Ach.

R. fraxinea, *Ach.*

Hab.: Queensland.—*F. v. M.* Vict. Nat., Oct. 1887.

R. geniculata, *Tayl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**R. gracilis**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**R. pusilla**, *Le Prev.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE CETRARIEI.

PLATYSMA, Hoffm.

P. eriophyllum, *C. K.* (sp. nov.) Thallus simple, with dark-coloured medulla and white woolly surfaces, 1-1½ inch in greatest width; surface wrinkled, margins almost simple, clasping a twig by the posterior and lateral margins, and with the anterior margin free, horizontal, and bearing the apothecia only along its edge. Apothecia from 1.5 to 2 mm. in diameter, disk dull-red to black, flat; margin truly thalline with a beautiful white ray of the woolly filaments. Asci ovate-cylindrical with 2-seriate contents 0.4×0.15 mm., or narrow-cylindrical and spores 1-seriate. Spores ovate or globular, simple and colourless, 0.007×0.005 mm. Paraphyses with iodine, dull-brown, matted, granular.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb., 1888.

Hab.: Mount Mistake.—*J. F. Shirley.*

TRIBE PETTIGEREI.

NEPHROMA, Ach.**N. tropicum**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE PARMELIEI.

STICTA, Ach.**S. flavissima**, *J. Muell.*Hab.: Main Range.—*Hartmann.***S. glaucescens**, *Kremfelt.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. dissimulata**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. filicina**, *Ach.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. dissimilis**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. aurata**, var. **pallido-glaucescens**, *C. Knight.*Hab.: Mount Mistake.—*J. F. Shirley.***S. subvariabilis**, *Nyl.*Hab.: Mount Mistake.—*J. F. Shirley.*

S. Billardieri, *Delise*.Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. dichotomoides**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. fragillissima**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. hypoleuca**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Karstenii**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Sayeri**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. sulphurea**, *Schærer*.Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.STICTINA, *Nyl.***S. cinnamonea**, *Rich.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. esorediata**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. limbata**, *Sm.*Hab.: Mount Mistake.—*J. F. Shirley*.**S. macrophylla**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Montagneana**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

RICASOLIA, De Not.

R. crenulata, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**R. Hartmannii**, *J. Muell.*Hab.: Mount Mistake.—*J. F. Shirley*.**R. hypoleuca**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

R. plurimiseptata, *C. K.* (sp. nov.) Thallus pale-grey, with smooth upper surface sparsely dotted over with small black spermatogonia; lobes few, rounded, with sinuate margins. Apothecia shortly pedicellate, at first resembling those of *Parmelia mundata*, afterwards with incurved laterally flattened margins, becoming boat-shaped. The under surface of an apothecium thus exhibited is covered with exceedingly fine closely-set granules. Disk dull dark-red. Asci clavate-cylindrical, 0.8-0.1 mm. Spores overlapping and massed, acicular, colourless, 12-15 septate. Paraphyses clavate, separating, tips very dark-brown (J).—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb 1888.

Hab.: Mount Mistake.—*J. F. Shirley*.

R. sublævis, *Nyl.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

PARMELIA, *Ach.***P. corollina**, *Ach.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. eciliata, *Nyl.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. hospitans, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. insinuata, *Nyl.*

Hab.: Mistake.—*J. F. Shirley.*

P. Mongestii, *Schærer.*

Hab.: Helidon.—*J. F. Shirley.*

P. ochroleuca, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. pruinata, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. rutidota, *Tayl.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. saxatilis, *Ach.*

Hab.: Mount Mistake.—*J. F. Shirley.*

P. sulphurata, *Nees.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. urceolata, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

P. virens, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

PHYSICIA, *Nyl.***P. speciosa**, var. *hypoleuca*, *Ach.*

Hab.: Helidon.—*J. F. Shirley.*

TRIBE GYROPHOREI.

PYXINE, *Fries.***P. retirugella**, *Nyl.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

TRIBE LECANOREI.

PANNARIA, *Delise.*

P. flexuosa, *C. K.* (sp. nov.) Hypothallus black, to which the brownish grey or grey-drab thalline lobes are closely appressed; finely and closely linear-lobate with forked terminations; linear-

lobate seldom more than 2-3 mm. in length. Apothecia 6-1 mm. broad, with vermilion-coloured disks and pale yellow-grey excipula. Theca cylindrical, deep-blue with iodine. Paraphyses golden-yellow with iodine, matted, tips agglutinated. Spores globular, oval or oblong, sometimes curved, simple, pellucid, with thick episporium, $0036\text{-}005 \times 003\text{-}0035$ mm. (immature).—*J. F. Shirley's Paper to Roy. Soc. Qd.*, 10th Feb. 1888.

Hab.: Mount Perry.—*J. Keys.*

P. isidoides, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. integrata, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Mariana, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PSOROMA, Fries.

Thallus scaly, cellular; granules large, distinct, enclosed in a cellular envelope. Apothecia usually scattered; border crenate; paraphyses separate; spores 8, large, simple. Spermagonia and arthrospores.—*New Zeal. Flora.*

P. dispersum, *Stirton.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Karstenii, *J. Muell. et Agardh.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. sphinctrinum, *Nyl.* = *PANNARIA SOREDIATA*, *C. Knight.*

PATELLARIA.

(Latin *patella*, a pan, dish, or plate, from shape of apothecia.)

P. alutacea, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. australiensis, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. furfurella, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. leucoblephara, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. subproposita, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. ventricosa, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PLACODIUM, DC.

Thallus radiating, rarely laciniate. Apothecia with a thalline border, rarely without one; paraphyses separate; spores 8, ellipsoid,

2-locular, rarely simple. Spermagonia immersed, orifice coloured; spermatia shortly cylindrical, slender, attached to arthrospores.—New Zeal. Flora ii. 577.

P. cirrhochrom, *Ach.*; *f. thallus leprosis*, *C. Knight.*

Hab.: Mount Perry.—*J. Keys.*

P. plurilocellare, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

AMPHILOMA, Fries.

Thallus soft, membranous; surface powdery. Granules with a cellular coat. Apothecia reddish, border powdery.—New Zeal. Flora.

A. gossypinum, *Nyl.*

A. murorum, *Kærber.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

A. glaucescens, *Rev. F. R. M. Wilson*, *Vict. Nat.*, June 1888.

Hab.: On bark, Tambourine Mountain.—*J. F. Shirley.*

RINODINA.

A division of the *Lecanora*, in which the spores are always of a brown colour.

R. thiomela, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1877.

COCCOCARPIA.

C. aurantica, *Mont.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

C. pellita, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

LECANORA, Nyl.

L. albella, *Ach.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

L. atra, *Huds.*

Hab.: Helidon.—*J. F. Shirley.*

L. continua, *C. K.*

Hab.: Taylor's Range.—*J. F. Shirley.*

L. conyzæa, *Nyl.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

L. effusa, *Th. Fries.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

L. plumosa, *Fries.*

Hab.: Queensland.—*F. v. M.*, *Vict. Nat.*, Oct. 1887.

L. soreidiifera, *Fée.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. sordida, *Fries.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. subfusca, var. *chlarona*, *Ach.*

Hab.: Brisbane River.—*J. F. Shirley.*

L. subfusca, var. *coilocarpa*, f. *saxicola*.

Hab.: Taylor's Range.—*J. F. Shirley.*

L. queenslandiæ, *C. K.* (sp. nov.) Thallus a dirty-white or faded yellow, granular, in small rounded granules resembling the verrucæ of *Pertusaria*, the granules separated by fine areolate fissures; surface of thallus irregular, following the roughened surface of the bark below. Apothecia raised, very numerous in the central portion of thallus, 7-9 mm. in diameter; disk waxy in appearance and pale-red, margin moniliform from the earliest stages, ring-like, thalline. Spores simple, pellucid, contents golden-yellow with iodine, oval, $\cdot 005\text{-}\cdot 008 \times \cdot 002\text{-}\cdot 0035$ mm.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab.: Mount Perry, on bark.—*J. Keys.*

CALLOPISMA, Notaris.

C. aurantiacum, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PERTUSARIA, DC.

P. pustulata, *Duby.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. leutescens, *Krempelhuber.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. melaleuca, *Duby.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. trypetheliiformis, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. xanthoplaca, *J. Muell.*

Hab.: Queensland.—*F. v. M.*

P. leucostigma, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. dermatodes, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. soreidiata.

Hab.: On rocks, Sandgate.—*Bail.*

P. gibberosa, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Hartmanni, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**P. pertusella**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**P. subflavens**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**P. leioplacoides**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**THELOTREMA**, Ach.

T. expansum, *C. K.* (sp. nov.) Thallus pale-brown, smooth, evenly spread, generally well defined by a narrow, almost black, hypothalline border. Apothecia showing as punctures through the thallus, with thalline and true excipula, latter rupture and curl and become irregular; disk dark-brown in the centre and darker at margins, 1.5 mm. in diameter. Thecae clavate-cylindrical. Spores oblong or narrowly oval, occasionally ovate-fusiform, somewhat pointed at each end, brown, 5-7 septate; loculi narrow-oval or oblong, $0.18 \cdot 025 \times 0.036 \cdot 005$ mm. Paraphyses capillary, discrete, cloudy yellow-brown with iodine. Hymenial gelatine with iodine remaining brown.

Hab.: On bark, Hill End, South Brisbane.—*J. F. Shirley.***ARTHOPYRENIA.****A. cinerea-pruinosa**, *Krempel.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**A. gravestella**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**CLATHROPORINA.****C. olivacea**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**C. robusta**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**OCELLULARIA.****O. Bonplandi**, *Spreng.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**O. gyrostomoides**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**O. leucotyla**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**LECIDEA**, Ach.**L. aurigera**, *Stirton.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. bacidioides, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. confluens, *Fries.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. contraria, *J. Muell.* = *L. QUADRILOCULARIS*, *C. K.*, part iii.
Contrib. to Queensl Flora.

Dr. C. Knight says that his name must lapse, as Nylander had applied it to another species.

L. exigua, *Ch.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Bombyliospora) fusco-lutea.

Hab.: Main Range.—*Hartmann.*

L. ludibunda, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. meiospora, *Nyl.*

Hab.: Brisbane River. This is often found on the hard bare earth of ant-hills.

L. mutabilis, *Fée.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. piperis, *Spreng.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. speirea, *Ach.*

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

L. subsimilis, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Biatorinopsis) lutea, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Blastonia) ferruginea, *Krempel.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Psora) brevisulcata, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Psora) subhyalina, *Stirton.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Buellia) parasema, *Th. Fries.*

Hab.: Sandgate.—*Bailey.* Taylor's Range.—*J. F. Shirley.*

L. conspersa, *Fée.*

F. v. M. in litt. *Bailey.*

HETEROTHECIUM, Tuck.

Margin of apothecia lighter than disk or none; spores brown.

H. Sayeri, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE GRAPHIDEI.

GRAPHIS, *Ach.*

G. Parmeliorum, *C. K.* (sp. nov.) Parasitic on *Parmelia tinctorum* as rounded brownish spots scattered over the upper surface of the thallus, generally separate, but at times marginal and confluent, slightly raised above the surface of its host, 2-3 mm. in diameter. The lirellæ can be observed on these spots as radiating dark-brown lines, not extending quite to the centre of the parasitic thallus, or reaching its circumference, 1 mm. in length, with slightly raised thalline excipula, and very fine thallamial line. The surrounding thallus paler near the lirella than elsewhere. Spores non-det.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab. : On *Parmelia*, Rosewood Scrub.—*J. F. Shirley.*

G. assimilis, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. crassilabra, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. duplicata, *Ach.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. propinqua, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. rimulosa, *Mont.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. Sayeri, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. scripta, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. striatula, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. subtenella, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. tenella, *Ach.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. vermifera, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

OPEGRAPHA, *Ach.***O. Bonplandi**, *Fée.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

O. inalbescens, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

MELANOGRAPHIS.

M. leucinia, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

GRAPHINA.

G. brachyspora, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. Hartmanni, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. polyclades, *Krempel.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

CENOGONIUM, Ehrenb.

C. rigidulum, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

DICHONEMA.

D. irpicinum, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

LEPTOTREMA.

L. fallax, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PYRENULA.

P. defossa, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. convexa, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. subvariolosa, *C. K.* (Under *Verrucaria* in first Supplement.)

Hab. : Mount Perry.—*J. Keys.*

PSEUDOPYRENULA.

P. sulphurescens, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

CHIODECTON, *Ach.***C. effusum**, *Fée.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. rubro-cinctum, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. sublævigatum, *Krempel.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

GLYPHIS, *Ach.***G. favulosa**, *Ach.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

MELASPILEA, Nyl.

Thallus excessively thin or obsolete. Apothecia as in *Arthonia*, black, superficial; paraphyses distinct; spores 8, usually colourless, 1-septate; spermatia straight.—New Zeal. Flora.

M. opegraphoides, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ARTHONIA, Ach.**A. delicatula**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. gracilenta, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. gracillima, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. Thozetiana, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

VERRUCARIA, Pers.**V. rhapsispora**, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

V. trichospora, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

V. zostra, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ANTHRACOTHECIUM.**A. desquamans**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. Doleschalli, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. macrosporum, *Hepp.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. strigosporum, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TREMOTYLIIUM.**T. australianum**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ABNORMAL LICHENS.

LEPRARIA, Ach.**L. candelaria**.

Hab.: Mount Perry.—*J. Keys.*

Order FUNGI.

The Queensland plants of this order are here arranged in accordance with the classification used by that excellent mycologist M. C. Cooke, M.A., in his enumeration of the Australian species in vols. ix., x., xi., and xii. of the *Grevillea*, a work not completed when the author's *Synopsis of the Queensland Flora* was printed.

SUBORDER I.—HYMENOMYCETES.

TRIBE I. AGARICINI.—*Genera*: Agaricus, Coprinus, Cortinarius, Paxillus, Hygrophorus, Lactarius, Russula, Cantharellus, Marasmius, Lentinus, Panus, Trogia, Xerotus, Schizophyllum, Lenzites.

TRIBE II. POLYPOREI.—*Genera*: Boletus, Strobilomyces, Polyporus, Fomes, Polystictus, Poria, Trametes, Dædalea, Hexagona, Laschia, Merulius.

TRIBE III. HYDNEI.—*Genera*: Hydnum, Irpex, Sistotrema, Radulum, Phlebia, Grandinia.

TRIBE IV. THELEPHOREI.—*Genera*: Craterellus, Cladoderris, Lachnocladium, Thelephora, Stereum, Auricularia, Dictyonema, Hymenochæte, Peniophora, Corticium, Hypochnus, Cyphella.

TRIBE V. CLAVARIEI.—*Genera*: Clavaria, Calocera.

TRIBE VI. TREMELLINI.—*Genera*: Tremella, Hirneola, Guepinia, Dacrymyces.

SUBORDER II.—GASTEROMYCETES.

TRIBE I. PHALLOIDEI.—*Genera*: Dictyophora, Phallus, Cynophallus, Clathrus, Ileodictyon, Aseröe.

TRIBE II. LYCOPERDACEI.—*Genera*: Podaxon, Phellorinia, Mitremyces, Tulostoma, Mesophellia, Diploderma, Geaster, Bovista, Lycoperdon, Mycenastrum, Polysaccum, Scleroderma.

TRIBE III. NIDULARIACEI.—*Genera*: Cyathus, Crucibulum.

TRIBE IV. HYPOGÆI.—*Genera*: Hydnangium, Hymenogaster.

SUBORDER III.—MYXOMYCETES.

TRIBE I. CALCAREÆ.—*Genera*: Physarum, Æthalium, Spumaria, Tilmadoche, Chondrioderma, Didymium.

TRIBE II. AMAUROCHETÆÆ.—*Genus*: Stemonitis.

TRIBE III. ANEMÆÆ.—*Genera*: Tubulina, Clathroptychium.

TRIBE IV. ARCYRIACEÆ.—*Genus*: Arcyria.

TRIBE V. TRICHIACEÆ.—*Genus*: Hemiarcyria.

SUBORDER IV.—ÆCIDIOMYCETES.

- TRIBE I. PUCCINIÆ.—*Genera*: *Ræstelia*, *Æcidium*, *Cronartium*, *Puccinia*, *Cerebella*, *Uromyces*, *Melampsora*, *Uredo*.
- TRIBE II. USTILAGINÆ.—*Genera*: *Ustilago*, *Sorosporium*, *Thecaphora*, *Tilletia*, *Graphiola*.

SUBORDER V.—DISCOMYCETES.

- TRIBE I. HELVELLACEI.—*Genera*: *Leotia*, *Geoglossum*, *Calloria*, *Peziza*, *Helotium*, *Chlorosplenium*, *Phillipsia*.
- TRIBE II. BULGARIACEI.—*Genus*: *Ascobolus*.
- TRIBE III. PATELLARIACEI.—*Genera*: *Cenangium*, *Tympanis*.
- TRIBE IV. STICTICI.—*Genus*: *Stictis*.
- TRIBE V. HYSTERIACEI.—*Genera*: *Lembosia*, *Histerographium*, *Rhytidhysterium*, *Tryblidiella*.
- TRIBE VI. TUBERACEI.—*Genus*: *Mylitta*.

SUBORDER VI.—PYRENOMYCETES.

- TRIBE I. HYPOCREACEI.—*Genera*: *Hypocrea*, *Gibberella*, *Hypomyces*, *Sphærostilbe*, *Nectria*.
- TRIBE II. XYLARIACEÆ.—*Genera*: *Xylaria*, *Poronia*, *Rhopalopsis*, *Hypoxylon*, *Nummularia*.
- TRIBE III. DOTHIDIÆ.—*Genera*: *Melogramma*, *Dothidea*, *Rhytisma*, *Phyllachora*, *Dothidella*.
- TRIBE IV. VALSIÆ.—*Genera*: *Diatrype*, *Valsa*.
- TRIBE V. SPHÆRIÆ.—*Genera*: *Cucurbitaria*, *Daldinia*, *Anthostoma*, *Physalospora*, *Scortechinia*, *Sphæria*, *Sphærella*, *Capnodium*, *Micropeltis*, *Gibellia*, *Didymella*, *Didymosphæria*.
- TRIBE VI. PERISPHORIÆ.—*Genera*: *Meliola*, *Asterina*, *Antennaria*, *Sphærotheca*, *Chætomium*, *Eurotium*.

PYRENOMYCETES (incomplete).

- TRIBE I. SPHERONEMÆ.—*Genera*: *Chætophomas*, *Cytospora*, *Phoma*, *Phlyctæna*, *Gamospora*, *Actinothecium*, *Melophia*, *Phyllosticta*, *Sphæropsis*, *Diplodia*, *Ascochyta*, *Robillarda*, *Diplodina*, *Pestalozzia*, *Glæosporium*, *Melophia*.

SUBORDER VII.—HYPHOMYCETES.

- TRIBE I. ISARIACEI.—*Genus*: *Ceratium*.
- TRIBE II. STILBACEI.—*Genera*: *Stilbum*, *Fusarium*, *Myrothecium*, *Epicoccum*, *Illosporium*, *Microcera*.
- TRIBE III. MUCEDINÆ.—*Genera*: *Aspergillus*, *Sporotrichum*, *Nematogonum*, *Thozetia*, *Oidium*.

TRIBE IV. DEMATIEI.—*Genera*: Cladosporium, Cercospora, Fumago, Harpoglyphium, Isariopsis, Helminthosporium, Brachysporium, Actinomma, Cerebella.

TRIBE V. TRICHODERMACEI.—*Genera*: Trichoderma, Sapedonium.

TRIBE VI. TORULACEI.—*Genera*: Torula, Hormiscium, Periconia, Bispora, Scolecotrichum, Bactridium.

SUBORDER VIII.—PHYSOMYCETES.

TRIBE I. MUCORINI.—*Genera*: Mucor, Circinella.

SPURIOUS GENERA OF FUNGI.

XYLOSTROMA—

giganteum, *Sow.*

RHIZOMORPHA, *Ach.*—

Harrimanni.

corynephora, *Kunze.*

SUBORDER I.—HYMENOMYCETES, *Fries.*

TRIBE I.—AGARICINI, *Fries.*

AGARICUS, *Linn.*

AMANITA. (From the Greek; certain *Amanatai fungi* found on Mount Amanus, in Cilicia.)

A. vaginatus, *Bull.*, *Fries Hym. Eur.* 27; *Cooke Illust. t.* 12. (So named from the volva forming a sheath.)

A. ossideus, *Fries.*

Hab.: Near Brisbane.

LEPIOTA. (Derived from the Greek, referring to the ear-shaped scales of the pileus.)

A. procerus, *Scop.*, *Fries Hym. Eur.* 29; *Cooke Illust. t.* 21. Parasol Mushroom.

A. excoriatus, *Schæffer*, *Fries Hym. Eur.* 30; *Cooke Illust. t.* 23.

A. leontoderes, *Berk. et Br.*, *Fungi Ceylon*, *Linn. Journ.* xi. 499.

A. cheimonoceps, *Berk. et Curtis*, *Cuban Fungi* 283.

A. granulatus, *Batsch.*, *Fries Hym. Eur.* 36.

A. aspratulus, *Berk.*, *Lond. Journ. of Bot.* 1849, 94.

A. clypeolarius, *Bull.*, *Fries Hym. Eur.* 32; *Cooke Illust. t.* 38.

A. cepæstipes, *Sow.*, *Fries Hym. Eur.* 35.

A. dolichaulos, *B. et Br.*, *Fungi of Ceylon*, *Linn. Journ.* xi. 496.

A. megalotheles, *Kalchb.*

A. rhytipelta, *Kalchb. et F. v. M.*, *Proc. Linn. Soc. N.S.W.* vii. 104.

A. stenophyllus, *Cooke et Mass.*, Grev. xv. 98.

Hab. : Endeavour River.

A. Beckleri, *Berk.*, Linn. Soc. Journ. xiii. 156.

Hab. : Near Brisbane.

A. bubalinus, *Berk.*, Linn. Journ. xiii. 156.

Hab. : Queensland.—*F. v. M.*

ARMILLARIA. (From *armilla*, a ring.)

A. melleus, *Vahl.*, Fries Hym. Eur. 44; *Cooke Illust.* t. 32.

TRICHOLOMA. (Bordered or fringed with hairs, alluding to the character of the veil.)

A. civilis, *Fries*, Hym. Eur. 71; *Fr. Icon.* t. 42 f. 1.

CLITOCYBE. (From the Greek, alluding to the central depression of the pileus.)

A. rheicolor, *Berk.*, *Ann. Nat. Hist.* iii. 376.

COLLYBIA. (From the Greek, alluding to the form of fungus, like a small coin.)

A. laccatinus, *Berk.*, Linn. Journ. xviii. 383.

A. coagulatus, *B. et Br.*, Linn. Trans. ii. 53.

MYCENA. (From the Greek for fungus.)

A. silenus, *Berk. et Br.*, Linn. Journ. xi. 524; *Ceylon Fungi* p.o. 120.

OMPHALIA. (Navel-like, alluding to the boss in the centre of the pileus.)

A. scyphiformis, *Fries*, Hym. Eur. 159; *Fries Leon.* t. 75 f. 3.

A. oniscus, *Fries*, Hym. Eur. 158.

A. umbelliferus, *Linn.*, *Fries.* Eur. 160.

A. gomphomorphus, *Berk.*, Linn. Journ. xviii. 383.

PLEUROTUS. (From the Greek, alluding to the stem when present being on one side.)

A. sordulentus, *Berk. et Br.*, Linn. Trans. ii. 54.

A. illuminans, *F. v. M.*, Linn. Journ. xiii. 157.

A. corticatus, *Fries*, Hym. Eur. 166.

A. applicatus, *Batsch.*, *Consp.* t. 125; *Fries Hym.* Eur. 180.

A. Guilfoylei, *Berk.*, Linn. Journ. xiii. 158.

A. lenticula, *Kalchb.*, Grev. viii. 151 t. 142 f. 3.

A. semisupinus, *Berk. et Br.* = *A. nidulus*, *B. et C.*

A. semiliber, *B. et Br.*, Linn. Trans. (2nd series) ii. 54.

Hab. : On the bark of scrub trees, Brisbane River.

A. Thozetii, *B. et F. v. M.*, Linn. Journ. xviii. 383.

- A. salignus**, *Fries*, Hym. Eur. 174. Willow *Pleurotus*.
Hab. : Endeavour River.—Grev. xii. 13.
- A. mitis**, *Pers.*, Syn. 481. Kidney-shaped *Pleurotus*.
Hab. : Port Denison.—Grev. xii. 13.
- A. ostreatus**, *Fries*, Hym. Eur. 173. Oyster *Pleurotus*.
Hab. : Queensland.—*F. v. M.*
- A. Baileyi**, *B. et Br.* in Herb. Berk. = LENTINUS FULVO-ATOMATUS,
B. et Br.

PHOLIOTA. (Plant scaly.)

- A. phyllicigena**, *Berk.*
Hab. : Mount Mistake, on stem of live tree, 15 feet from the ground.
- A. adiposus**, *Fries*.
Hab. : Ithaca Creek.

HEBELOMA. (Alluding to the fringe-like veil.)

- A. nudipes**, *Fries*, Hym. Eur. 242 ; Kalch. Hung. t. 14 f. 4.

FLAMULA. (From the diminutive of flame.)

- A. sapineus**, *Fries*, Hym. Eur. 251.
- A. picrieus**, *Fries*, Hym. Eur. 251.
- A. Baileyi**, *Berk. et Br.*, Linn. Trans. ii. 54.
- A. gymnopodius**, *Bull.*
Hab. : Near Brisbane.

NAUCORIA. (From *naucum*, a kind of vessel hollowed like a ship.)

- A. Bowmani**, *Berk.*, Linn. Journ. xiii. 128.
- A. anguineus**, *Fries*, Hym. Eur. 255.

GALERA. (From *galera*, a cap.)

- A. peroxydatus**, *Berk.*, Journ. Bot. 1843, 511.

CREPIDOTUS. (From the Greek for sandal, and *Pleurotus*.)

- A. mollis**, *Schæffer*, t. 213 ; *Fries* Hym. Eur. 275.
- A. interceptus**, *Berk.*, Flora Tasm. t. 181 f. 6.
- A. stromaticus**, *Cooke et Mass.*, Grev. xv. 94.
Hab. : On bark, Daintree River.

PSALLIOTA. (From the Greek—the curb-chain or ring attached to it ; from its analogy to *Armillaria*, in being ringed.)

- A. versipes**, *Berk. et Br.*, Linn. Trans. ii. 54.
- A. campestris**, *Linn.*, *Fries* Hym. Eur. 279. Common Mushroom.

PSATYRELLA (Diminutive of *Psathyra*.)

- A. hiascens**, *Fries*, Hym. Eur. 314 ; *Bull* t. 552 f. 2.
- A. disseminatus**, *Pers.*, Syn. 403 ; *Fries* Hym. Eur. 316.
- A. acerinus**, *Fries*.

COPRINUS, Fries.

- C. stercorarius**, *Fries*, Hym. Eur. 331. Found growing on dung.
C. ephemerus, *Fries*, Hym. Eur. 331. Ephemeral.
C. tomentosus, *Fries*, Hym. Eur. 325. Tomentose.

CORTINARIUS, Fries.

(So named from the cobweb-like texture of the veil.)

Spores rusty-ochre, resembling in colour peroxide of iron; veil universal, of a different texture to the pileus, and consisting of arachnoid threads; a similar veil is found in *Agaricus*, but it is there either partial or continuous with the cuticle of the pileus; stem confluent with the hymenophore; gills adnate, membranaceous, persistent, cinnamon-coloured and powdery; trama floccose.—*Cooke's British Fungi* i. 171.

- C. cinnabarinus**, *Fries*. Cinnabar-coloured.

PAXILLUS, Fries.

- P. hirtulus**, *Kalchb.*
P. crassus, *Fries*, Hym. Eur. 404.

HYGROPHORUS, Fries.

- H. miniatus**, *Fries*, Hym. Eur. 418.
H. porphyrinus, *Berk. et Br.*, Linn. Trans. ii. 65.
H. scarlatinus, *Kalchb.*, Grev. viii. t. 143 f. 11.

LACTARIUS, Fries.

(So named from the milky juice.)

Spores white or very pale-yellow, generally echinulate; veil none, but in some species the margin of the pileus is bearded or pubescent; pileus fleshy, of a floccose or versiculose (not fibrous) texture, at length depressed in the middle, margin at first involute; stem fleshy, not corticate, often hollow when old, confluent with the hymenophore; gills milky, in nearly all the species at first white, often changing to sulphur colour, red or violet on exposure to the air, subdecurrent, unequal, with an acute edge; trama subvesiculose.—*Cooke's British Fungi* i. 206.

The species are easily recognised by the milky gills. The genus is nearly allied to *Russula*, but readily distinguished by its milky juice. They vary greatly in taste, being mild, aromatic, bitter, or acrid and burning. *Lactarius*, therefore, includes delicate and excessively poisonous species.—*Cooke, l.c.*

- L. quietus**, *Fries*, Epicr. 343. The mild reddish *Lactarius*.
L. piperatus, *Fries*, Hym. Eur. 430. Peppery *Lactarius* (poisonous).

Hab.: Endeavour River.—Grev. xii. 13.

RUSSULA, Fries.

- R. rubra**, *Fries*, Hym. Eur. 444.
R. fragilis, *Fries*, Hym. Eur. 450.
R. sanguinea, *Fries*, Hym. Eur. 442.
R. Linnæi, *Fries*.
 Hab. : Brisbane River.

CANTHARELLUS, Adans.

- C. aurantiacus**, *Fries*, Hym. Eur. 455.
C. cibarius, *Fries*, Hym. Eur. 455.

MARASMIUS, Fries.

- M. rotula**, *Fries*, Hym. Eur. 477.
M. confertus, *Berk. et Br.*, Ceylon Fungi, Linn. Journ. xi. 352.
M. rhyticeps, *Kalchb.*, Grev. 14, 71 t. 143 f. 15.
M. rufo-pallidus, *Kalchb.*, Grev. iv. 71 t. 143 f. 15.
M. calobates, *Kalchb.*, Grev. iv. 71 t. 143 f. 15.
M. opacus, *Berk. et Cooke*, Hook. Journ. 1849, 99.
M. aciculiformis, *Berk. et Br.*, Linn. Journ. x.
M. pellucidus, *Berk. et Br.*
M. Muelleri, *Berk.*, Linn. Journ. xviii. 583.
M. equicrinis, *B. et Br.*, Grev. xiii. 153.
M. exocarpi, *Berk.*, Linn. Journ. xviii. 384.
M. calopus, *Fries*.
 Hab. : Enoggera.

LENTINUS, Fries.

- L. pergamenus**, *Fries*, Sym. Myc.
L. fulvus, *Berk.*, Ann. Nat. Hist. x. 369.
L. fasciatus, *Berk.*, Hook. Journ. 1840, 146.
L. cyathus, *Berk. et Br.*, Linn. Trans. ii. 400.
L. Lecomtei, *Fries*, Epicr. 1888.
L. subdulcis, *Berk.*, Hook. Journ. 1851, 46.
L. subnudus, *Berk.*, Hook. Journ. 1847, 492.
L. exilis, *Klotsch*, Fries Sym. Leut. 10.
L. vulpinus, *Fries*, Hym. Eur. 486.
L. Dunalii, *Fries*, Hym. Eur. 481.
L. eugrammus, *Mont.*, Cuba 414 t. 17 f. 2.
L. cretaceus, *Berk.*

- L. Shannii**, *Berk.*
- L. blepharodes**, *Berk. et Curt.*, Fungi Cuba No. 155.
- L. catervarius**, *B. et Br.*, Linn. Trans. ii. 55.
- L. exasperatus**, *B. et Br.*, Linn. Trans. ii. 55.
- L. Kurzianus**, *Currey.*
- L. punctaticeps**, *B. et Br.*, Linn. Trans. ii. 55.
- L. fusipes**, *Cooke et G. Mass.*, Grev. xvi. 1.
Hab.: Trinity Bay.
- L. cochleatus**, *Fries*, *Epier.*; *Sow.* t. 168; *Cooke* Brit. Fungi. 712.
Hab.: At stump of tree, Kedron Brook. Met with also in West Australia, Europe, and America; the confluent stems forming dense clusters.
- L. lepidus**, *Fries.* Scaly *Lentinus*.
- L. strigosus**, *Fries*, *Epier.* 388.
Hab.: North Queensland.—Grev. xii. 13.
- L. Schomburgkii**, *Berk.*, Linn. Trans. xxiii. t. 9 fig. 30.
Hab.: Daintree River; Port Denison.—Grev. xii. 13.
- L. holopogonius**, *Berk.*
Hab.: Queensland.—Grev. x. 63.
- L. lateritius**, *Berk.*, Linn. Journ. xviii. 384.
Hab.: Queensland.—*F. v. M.*

PANUS, Fries.

- P. incandescens**, *Berk. et Br.*, Trans. Linn. Soc. ii. 54.
- P. angustatus**, *Berk.*
- P. viscidulus**, *Berk. et Br.*, Linn. Trans. ii. 55.
- P. torulosus**, *Fries*, *Epier.* 397.
- P. suborbicularis**, *B. et Br.*, Linn. Trans. ii. 55.
- P. rivulosus**, *Berk.*, Linn. Journ. xviii. 384. Furrowed or rilled.

TROGIA, Fries.

Pileus submembranaceous, soft, tough, flaccid but very dry, flexible, reviving; gills venose, fold-like, forked, edge longitudinally channelled or crisped; texture fibrillose; spores white.—*Cooke's* British Fungi i. 246.

- T. crispa**, *Fries*, *Epier.* 369. (Referring to the narrow vein-like crisped gills.)

XEROTUS, Fries.

- X. albidus**, *B. et Br.*, Linn. Trans. ii. 56.
- X. lateritius**, *B. et Cooke*, Journ. Linn. Soc. x. 303.
- X. Rawakensis**, *Fries*, *Epier.*

- X. proximus**, *Berk. et Br.*, Linn. Trans. ii. 56.
X. fulvus, *Berk. et Br.*
X. tener, *Berk. et Br.*, Linn. Journ. xiv. 45.
X. Bertierii, *Mont.*, Chil. vii. 353.
X. Archeri, *Berk.*, Flora Tasm. ii. 250 t. 182 f. 1. (After W. Archer.)

SCHIZOPHYLLUM, Fries.

- S. commune**, *Fries*, Hym. Eur. 492.
S. multifidum, *Fries*.

LENZITES, Fries.

- L. striata**, *Fries*, Epicr. i. 406.
L. betulina, *Fries*, Hym. Eur. 493.
L. deplanata, *Fries*, Epicr. i. 404.
L. faventinus, *Cald.*, Erb. Critt. Ital. No. 89.
L. Beckleri, *Berk.*, Journ. Linn. Soc. xii. 161.
L. Berkeleyi, *Lév.*, Ann. Sci. Nat. 1866, 122.
L. Palisoti, *Fries*, Epicr. i. 404.
L. Guilfoylei, *Berk.*
L. nivea, *Cooke*, Grev. xv. 94. Whole plant snowy-white.
L. repanda, *Fries*, Epicr. 404.
 Hab.: Queensland.—Grev. xii. 14.
L. abietina, *Fries*, Hym. Eur. 495.
 Hab.: Queensland.—*F. v. M.*

TRIBE II.—POLYPOREI, *Fries*.

BOLETUS, Dill.

- B. pachypus**, *Fries*, Hym. Eur. 506.
B. ananæceps, *Berk.*, Linn. Journ. xiii. 161.
B. Thozetii, *Berk.*, Linn. Journ. xviii. 384.
B. hædinus, *B. et Br.*, Linn. Trans. ii. 57.
B. edulis, *Bull.*, Fries Epicr. 420. Edible.

STROBILOMYCES, *Berk.*

- S. nigricans**, *Berk.*, Hook. Journ. 1852, 139.

POLYPORUS (Eupolyporus), Fries.

Pileus pliant, fleshy, then becoming hard (seldom brittle, on account of a cheesy flakiness); surface without furrows or zones, but the connective substance radiating, fibrose (within), often zoned. Pores never spread out flat.

NOTE.—*The Queensland species of the old genus Polyporus are here arranged in accordance with Dr. M. C. Cooke's monograph, and will therefore be found in the genera Polyporus, Fomes, Polystictus, and Poria.*

A.—OVINI.

Stipes central, plant fleshy, growing on earth.

* Pileus rough, scaly or flaky.

P. Hartmanni, *Cooke*, *Grev.* xii. 14.

Hab. : Toowoomba.

P. myclodes, *Kalchb.*, *Grev.* iv. 73.

Hab. : Gracemere.—*L.c.*

B.—LENTI.

Foot central; substance from fleshy-pliant to hard; growing upon wood.

* Pileus rough, scaly or shaggy-hairy.

P. brumalis, *Fries*, *Hym.* Eur. 526.

Hab. : Brisbane.

P. orbicularis, *Sauter*, *Hedw.* xv. 150; (*rhypidium*, *Berk.* *Lond. Journ.* 1847 319 = *Favolus*.)

Hab. : Brisbane.

**** Pileus with ciliated margin.

P. arcularius, *Fries*, *Hym.* Eur. 526 = *P. AGARICENS*, *Berk.* *Ann. Nat. Hist.* x. 371.

Hab. : Brisbane.

P. tricholoma, *Mont.*, *Syll.* 153.

Hab. : Rockhampton.—*Grev.* iv. 73.

P. similis, *Berk.*, *Hook. Journ.* 1843, 635.

Hab. : Endeavour River; Goode Island.—*Grev.* xii. 15.

***** Pileus glabrous.

P. stipitarius, *B. et. Curt.* Var. *Armitii*, *F. v. M. et. Kalchb.*, *Grev.* x. 94 t. 145 f. 22.

Hab. : Dunrobin.

C.—SPONGIOSA.

Pileus at first soft-spongy, absorbing water, tomentose, afterwards corky or coriaceous, stipes irregularly shortened. Pores irregular, discoloured, moist-frosty.

** Inner substance whitish.

P. rufescens, *Fries*, *Syst. Myc.* i. 351.

Hab. : Queensland.—*Grev.* x. 95.

P. proteiporus, *Cooke*, *Grev.* xii. 15.

Hab. : Toowoomba.—*L.c.*

D.—MELANOPODES.

Foot central or frequently lateral. Stipes blackish, at least at the base. Pileus from fleshy-pliant to hardened.

* Pileus scaly or flaky.

P. squamosus, *Fries*, Syst. Myc. i. 343. (*Boucheanus*, Klotsch, Linn. viii. 318 = *Favolus*.)

Hab.: Endeavour River.—Grev. xii. 15.

P. melanopus, *Fries*, Syst. Myc. i. 347.

Hab.: Taylor's Range.

** Pileus smoothish.

P. picipes, *Fries*, Syst. Myc. i. 353.

Hab.: Redland Bay; Gracemere.

P. elegans, *Bull.*, Champ. t. 46.

Hab.: Queensland.—*F. v. M.*

P. Guilfoylei, *Berk. et Br.* = *P. NONSCRIPTUS*, *Berk.* in Herb.

Hab.: Logan.

P. dictyopus, *Mont.*, Syll. 155.

Hab.: Enoggera; Prettyboy Creek.

E.—PETALOIDES.

Pileus tough, fleshy, truly lateral (posterior portion not margined). Stipes wholly pallid, usually very short, in a straight line with the pileus as a rule, commonly striate-vergate in all parts except the zones.

* Pileus almost glabrous.

* Pileus subsquamous or floccose.

P. grammocephalus, *Berk.*, Lond. Journ. i. 147.

Hab.: Enoggera.

P. grammocephalus, var. Emerici, *Berk.*, Grev. x. 96.

Hab.: Queensland.—*L.c.*

P. platotis, *Berk. et Br.*, Linn. Trans. (2nd series) ii. 401.

Hab.: Enoggera Creek.

P. dorcadideus, *Berk. et Br.*, Linn. Trans. ii. 401.

Hab.: Enoggera Creek.

P. fusco-lineatus, *Berk. et Br.*, Linn. Trans. ii. 401.

Hab.: Enoggera Creek.

F.—FRONDOSI.

Pileus carnose, firm, floccose-fibrose, without zones and not hardened, coriaceous; cæspitose from a central point, stipitate, springing from a common base, more or less concrete; in the smaller forms the pileus is central and simply lobed, as may be repeatedly noted. Pores separated.

P. intybaceus, *Fries*, *Epicr.* 446.

Hab.: On wood, near Brisbane.

P. confluens, *Fries*, *Epicr.* 447 = *P. ARTEMIDORUS*, *Lenz.*; also *P. AURANTIUS*, *Schaff.*

Hab.: Port Denison.—*Grev.* xii. 16.

G.—LOBATI.

Pileus from fleshy to tough and subcoriaceous, more or less zonate, inner substance fibrose; pores adnate; caespitose, laterally substipitate, manifold-imbricate; stipites more or less connate or arising from a common outgrowth.

P. anthracophilus, *Cooke*, *Grev.* xii. 16.

Hab.: Rockhampton.—*L.c.*

H.—IMBRICATI.

Pileus epelliculose, cheesy. At first soft, juicy, afterwards dry, fragile, zoneless, pores not crowded. Caespitose, sessile to the stem of trees, commonly dimidiate, in position truly horizontal, on all sides expanding from the centre, at first from a single amorphous tubercle spreading out in innumerable small pilei.

P. sulphureus, *Fries*, *Epicr.* 450 = *P. CAUDICINUS*, *Scop.*; *P. CERATONIE*, *Fries*; and *P. CITRINUS*, *Pers.*

Hab.: Bunya Mountains.

P. retiporus, *Cooke*, *Grev.* xii. 15.

Hab.: Daintree River.—*L.c.*

I.—MOLLIS.

Anodermous. Pileus cheesy, at first soft, watery, fragile, and not flocculose, with regard to the inner substance thin (white), setose-hispid, with somewhat separated white pores. Adult forms at one time soft, at another hardened, but quickly putrescent and not lasting through the winter.

* Pileus tomentose.

P. corrivalis, *Berk.*, *Linn. Journ.* xiii. 162.

Hab.: Enoggera Creek.

P. chioneus, *Fries*, *Hym.* *Eur.* 546.

Hab.: Queensland.—*F. v. M.*

P. argentatus, *Cooke*, *Grev.* xv. 20 = *P. PALLISERI*, *Grev.* x. 98 (not *Berk.*).

Hab.: Queensland.—*Grev.*, *l.c.*

L.—DICHROI.

Anodermous. Pileus fleshy, tough (likewise tenacious in young forms), pliant, elastic; with regard to the inner substance fibrose-floccose, villose-tomentose; pores sub-adnate, coloured. Always soft and somewhat supple.

* Inner substance coloured.

P. foedatus, *Berk.*, Linn. Trans. xvi. 41.

Hab. : Somerset, Cape York.—*L.c.*

P. rubidus, *Berk.*, Hook. Journ. 1847.

Hab. : Cairns.

P. gilvus, *Schw.*, Syn. Car. 897.

Hab. : Maroochie.

P. scruposus, *Fries*, *Epier.* 897.

Hab. : Enoggera Creek.

** Inner substance white.

P. adustus, *Fries*, *Hym. Eur.* 549.

Hab. : Queensland.—*Grev.* x. 97.

M.—HISPIDI.

Anodermei—*i.e.* pileus—at first very spongiose-aquose, afterwards strongly elastic, formed out of tough fibres extrorsely diverging and spread out and thence setose-hispid; pores with fleshy fibres almost contiguous. The fleshy substance commonly exhibits an intermediate stratum, differing little from the hispid exterior.

* Inner substance coloured.

P. hispidus, *Fries*, *Hym. Eur.* 551.

Hab. : Enoggera Creek.

P. fruticum, *Berk. et Curt.*, Linn. Journ. x. 310.

Hab. : Enoggera; Cairns.

** Inner substance white.

P. pelliculosus, *Berk.*, Hook. Journ. 1848.

Hab. : Enoggera Creek.

P. substuppeus, *Berk. et Cooke*, Linn. Journ. xv. 381.

Hab. : Endeavour River.—*Grev.* xii. 16.

N.—SUBEROSI.

Pileus at first sub-carnose, succose, ultimately hardened, a thin rind for outer covering; pores fine, at length falling away from under.

** Inner substance white.

P. betulinus, *Fries*, *Hym. Eur.* 555 = *P. albellus*, *Peck.*

Hab. : Queensland.—*Grev.* xii. 16.

P. portentosus, *Berk.*, Hook. Journ. 1844.

Hab. : Enoggera.

O.—LIGNESCENTES.

Pileus more or less concentrically sulcate, 1-striate, and the living substance somewhat soft and succose, yet coriaceous from

whatever place as soon as they have been dried, contracted and commonly curved, with annual growth changing into tinder—the original substance soft, sub-fibrose; pores never spread out flat.

* Inner substance white.

P. hypopolius, *Kalchb.*, Grev. x. 99.

Hab.: Rockhampton.—*L.c.*

P. cartilagineus, *Berk. et Br.*, Ceylon Fungi.

Hab.: Johnstone River.—Grev. xii. 16.

** Inner substance pallid. † Pileus rugose, zonate.

P. zonalis, *Berk.*, Ann. Nat. Hist. x. 375.

Hab.: Brisbane.

P. testudo, *Berk. et Br.*, Linn. Trans. 2 ii. 401.

Hab.: Maroochie.

*** Inner substance brown.

P. anebus, *Berk.*, Hook. Journ. 1847.

Hab.: Maroochie.

P. vinosus, *Berk.*, Ann. Nat. Hist. ii. vol. ix. 195.

Hab.: Maroochie.

FOMES, Fries, Nova Symb. 31.

Pileus at first hardened ligneous (rarely soft, dropping water); inner substance floccosely interpressed, outer covering rigid, stretched, without zones, but at length concentrically sulcate. Perennial fungi (commonly stratose), growing again after decay, but the stratum is only of yearly growth.

A.—MESOPODES.

Pileus entire, glabrous, stipes distant, vertical, simple.

** Stipes brown, pruinose or tomentose.

F. rugosus, *Nees*, Nova Acta Cur. xiii. t. 7.

Hab.: South Queensland.

B.—PLEUROPODES.

Pileus horizontal, not at all round, glabrous, crustate-laccate; stipes simple, ascending, corticate or definitely lateral or excentric.

* Stipes laccate.

F. amboinensis, *Fries*, Epicr. 442. Var. *gibbosus*, *Nees*, Acta Cur. xiii. t. 5.

Hab.: Rockhampton.—Grev. iv. 73.

F. lucidus, *Fries*, Epicr. 442 = *P. LACCATUS*, *Pers.*; *P. NITENS*, *Batsch.*; and *P. OBLIQUATUS*, *Bull.*

Hab.: Maroochie.

F. lucidus, var. exquisitus, *Kalchb.*

C.—MERISMOIDEI.

From the common trunk or tubercle, the very numerous persistent tough pileoli are spread out, the inner substance floccose, somewhat soft, moistened; pores adnate.

F. scabriusculus, *Berk.*, Linn. Journ. xviii. 385.

F. senex, *Nees*, Mont. Syll. 160 = RHABBARBARINUS, *Berk.*

Hab.: Trinity Bay Range.

D.—FOMENTARII.

Pileus floccose, moistened, at first without moisture, not at all fleshy or spongy, outer covering hard, horny; pores at length stratose.

** Inner substance pallid, wood-coloured.

F. marginatus, *Fries*, Hym. Eur. 561.

Hab.: Queensland.—*F. v. M.*

F. dochmius, *Berk. et Br.*, Linn. Journ. xiv. 50.

Hab.: Daintree River.—*Grev.* xii. 16.

*** Inner substance dark, fulvous.

F. conchatus, *Fries*, Hym. Eur. 560.

Hab.: Queensland.—*F. v. M.*

**** Inner substance black-brown or purple-brown.

F. australis, *Fries*, Hym. Eur. 556 = P. DUBIUS, *Jungh.*

Hab.: Queensland.—*F. v. M.*

F. chilensis, *Fries*, Nov. Sym. 47.

Hab.: Rockhampton.—*Grev.* iv. 73.

F. appianatus, *Fries*, Hym. Eur. 557 = P. DRYADEUS, *Rostk.*

Hab.: Brisbane scrubs.

***** Inner substance ferruginous.

F. igniarius, *Fries*, Hym. Eur. 559 = P. POMACENS, *Pers.*;

P. OBTUSUS, *Pers.*

Hab.: Brisbane forest trees.

F. fulvus, *Fries*, Hym. Eur. 559 = NOVÆ-ANGLIÆ, *Berk. et Cooke*,

Grev. i. 51.

Hab.: Queensland.—*Grev.* x. 99.

F. salicinus, *Fries*, Hym. Eur. 560.

Hab.: Queensland.—*Grev.* x. 99.

E.—IMPOLITI.

Pileus dimidiate, ligneous, perennial, at first anodermous, floccose, slightly pruinose, at length indurate-incrustate, hardening to one identical structure throughout. Inner substance

fibrose-radiate, descending into the pores, which are crowded together, elongated, not stratose.

* Inner substance pallid.

F. contrarius, *Berk. et Curt.* in Herb. Berk. 2634.

Hab. : Maroochie.

*** Inner substance tawny or ferruginous.

F. lineato-scaber, *Berk. et Br.*, Linn. Trans. ii. 59. t. 11 f. 1.

Hab. : Port Douglas.

F. pectinatus (*Klot.*), *Fries*, Hym. Eur. 559 = *P. CONCHATUS*, *Quel.*

Hab. : Queensland.—*F. v. M.*

**** Inner substance black-brown.

F. endopalus, *Berk.*, Linn. Journ. xiii. 163.

Hab. : Queensland.—*Grev.* x. 100.

***** Inner substance (?)

F. ponderosus, *Kalchb.*, *Grev.* x. 99.

Hab. : Rockhampton.—*L.c.*

F.—LEVIGATI.

Pileus dimidiate, ligneous (and, moreover, from the first dry, in which it differs from the *Lignescenti*, above); cuticle thin (not separated into different layers), outer covering somewhat polished (younger forms, however, often flocculose). Pores crowded, not stratose; inner substance floccose-fibrillose, very pallid.

* Inner substance white or whitish.

F. compressus, *Berk.*, *Hook.* Journ. 1845, 53.

Hab. : Brisbane, on fences.

F. connatus, *Fries*, Hym. Eur. 563.

Hab. : Queensland.—*F. v. M.*

** Inner substance pallid.

F. ferreus, *Berk.*, *Hook.* Journ. 1847.

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

F. scopulosus, *Berk.*, *Hook.* Journ. 1852.

Hab. : Daintree River.—*Grev.* xii. 15.

*** Inner substance fleshy.

F. carneus, *Nees*, *Nova Acta* xiii. t. 3.

Hab. : Queensland.—*F. v. M.*

**** Inner substance black-brown.

F. cinereo-fuscus, *Curt.*, Linn. Trans. 1876.

Hab. : Trinity Bay Ranges.

F. placodes, *Kalch.*, *Grev.* iv. 73.

Hab. : Rockhampton.—*L.c.*

***** Inner substance reddish or ferruginous.

F. Palliseri, *Berk.* in Herb.; *Berk.* No. 2562 = *TRAMETES ARCTICUS*, *Berk.* No. 3044.

Hab.: Queensland.—*Grev.* x. 98.

F. incrassatus, *Berk.*, *Linn. Journ.* xvi. 41 = *RENIFORMIS*, *Morg.* *Bot. Gaz.* 1882, 136.

Hab.: Queensland.—*Grev.* x. 98.

G.—RESUPINATI.

Pileus resupinate or the margin reflexed.

F. obliquus, *Fries*, *Hym. Eur.* 570.

Hab.: Queensland.—*F. v. M.*

F. bistratosus, *Berk. et Cooke*, *Linn. Journ.* xv. 384.

Hab.: Bellenden-Ker Range.—*Grev.* x. 131.

F. Pentzei, *Kalchb.*

POLYSTICTUS, *Fries*, *Nova Symb.* 54.

Pileus coriaceous, inodermous, fibrillose; intermediate strata wanting in the hymenophorum, in which the pores are spread out successively from the centre towards the circumference, at first superficial, punctiform, separated, exposed, and standing vertically against the substance of the pileus; trama formed from the hymenophorum. Growth concentric, zonate.

A.—PERENNES.

Foot central or lateral, with anodermous stipes; inner substance and spores sub-ferruginous. Stipes often lateral.

P. luteo-nitidus, *Berk.*, *Hook. Journ.* 1856.

Hab.: Trinity Bay Ranges.

P. perennes, *Fries*, *Hym. Eur.* 531 = *P. CONFLUENS*, *Schum.*; and *P. CORIACEUS*, *Bull.*

Hab.: Trinity Bay Ranges.

P. oblectans, *Berk.*, *Hook. Journ.* 1845 = *SPLENDENS*, *Peck.*, 26th report 68.

Hab.: Brisbane River scrubs.

B.—SACRI.

Pileus coriaceous or papery, dry, zonate. Stipes leathery-crustaceous.

P. quadrans, *Berk. et Br.*, *Trans. Linn. Soc.* i. 400.

Hab.: Trinity Bay Ranges.

P. xanthopus, *Fries*, *Epier.* 473. = *CUPREO-NITENS*, *Kalchb.*, *Myc. Univ.* 1702 = *CRASSIPES*, *Curr.*, *Linn. Trans.* 1876, 122.

Hab.: Brisbane River scrubs.

C.—DISCIPEDES.

Pileus coriaceous, subreniform, zonate; stipes lateral (often elongated), commonly very short, with scutate-dilatate base.

* Dilatati. Pileus dry.

- P. flabelliformis**, *Klot.*, Fries Epicr. 444.
Hab.: Brisbane River scrubs.
- P. dilatatus**, *Lév.*, Ann. Sci. Nat. 1844, 184.
Hab.: Queensland.—*F. v. M.*, Fragm. xi.
- P. mutabilis**, *Berk. et Cooke*, Grev. i. 38.
Hab.: Daintree River.—Grev. xii. 15.
- P. luteus**, *Nees*, Nova Acta N. C. xiii. t. 4 f. 2.
Hab.: Brisbane River scrubs.
- P. cognatus**, *Kalchb.* = *P. STEREINUS*, *Berk. et Curt.*
- P. carneo-niger**, *Berk.*, Grev. xii. 15.
Hab.: Daintree River.—Grev. xii. 15.
- P. nephridius**, *Berk.*, Hook. Journ. 1856, 195.
Hab.: Taylor's Range.
- P. affinis**, *Nees*, Fries Epicr. 445 = *TEYSMANNI*, *Berk.* in Herb. 2424.
Hab.: Trinity Bay Ranges.
- P. brunneolus**, *Berk.*, Hook. Journ. iii. 187.
Hab.: Daintree River.—Grev. xii. 15.
- P. murinus**, *Lév.*, Ann. Sci. 1844.
Hab.: Rockhampton.—Grev. iv. 72.
- P. libum**, *Berk.*, Linn. Journ. xiii. 163.
- P. sanguineus**, *Fries*, Epicr. 444.
Hab.: Queensland scrubs.

D.—PROLIFICANTES.

Pileus coriaceous, thin, more or less prolificant, indefinitely changeable in the stipes, from time to time wanting, more or less prolonged.

- P. elongatus**, *Berk.*, Hook. Journ. 1842, 149 = *HODGKINSONIÆ*, *Kalchb.*, Grev. x. 96; and *P. XALAPENSIS*, *Curt.*, Sillim. Journ. 1850.
Hab.: Brisbane River scrubs.
- P. elongatus, var. spipitatus**, *Broome*.
Hab.: Port Douglas.
- P. gallopavonis**, *Berk. et Br.*, Trans. Linn. Soc. i. and Grev. x. 101.
Hab.: Enoggera Creek.

E.—FUNALES.

Dimidiate, sessile. The intermediate strata of the hymenophorum coriaceous, the outer parts strongly formed from the rough, coarse, overlapping fibres.

P. funalis, *Fries*, *Epicr.* 459.

Hab.: Trinity Bay Ranges.

F.—STUPOSI.

Pileus floccose-glabrate or appressed villose, unequally azonate; inner substance fibrose, ligneous or like tow. Pileus often dry, and with coriaceous zones not at all variegated, and not even manifestly separable.

*** Inner substance flesh-coloured or lilac.

P. Feei, *Fries*, *Epicr.*, 459.

Hab.: Queensland.—*F. v. M.*

P. lilacino-gilvus, *Berk.*, *Ann. Sci. Nat.* iii. 324.

Hab.: Enoggera Creek.

P. eucalypti, *Kalchb.*, *Grev.* iv. 73.

Hab.: Rockhampton.—*L.c.*

**** Inner substance red or purple.

P. cinnabarinus, *Fries*, *Syst. Myc.* i. 371.

Hab.: Brisbane River scrubs.

***** Inner substance yellow or golden.

P. radiatus, *Fries*, *Hym. Eur.* 565. = **P. fusco-gilvus**, *Schwz.*; and **P. glomeratus**, *Peck.*

Hab.: Taylor's Range.

***** Inner substance reddish-brown.

P. venustus, *Berk.*, *Hook. Journ.* 1845, 55.

Hab.: Trinity Bay Ranges.

P. floridanus, *Berk.*, *Ann. Nat. Hist.* x. 376.

Hab.: Ithaca Creek.

P. chrysoleucus, *Kalchb.*, *Grev.* iv. 72.

Hab.: Rockhampton—*L.c.*

G.—CORIACEI.

Pileus dimidiate, sessile, coriaceous, zoned; inner substance tenacious, floccose.

A.—*Versicolores.*

Inner substance white.

* Genuini.

P. versicolor, *Fries*, *Hym. Eur.* 568 = **P. argyraceus**, *Pers.*

Hab.: Main Range, Cunningham's Gap.

** Hirsuti.

P. hirsutus, *Fries*, Hym. Eur. 567.

Hab. : Main Range.

P. velutinus, *Fries*, Hym. Eur. 568 = *P. NIGRICANS*, *Lasch.*

Hab. : Endeavour River scrubs.—Grev. xii. 17.

P. vellereus, *Berk.*, Hook. Journ. i. 455.

Hab. : Daintree River.

P. pinsitus, *Fries*, *Epicr.* 479.Hab. : Queensland.—*F. v. M.*, *Fragm.* xi.

*** Ectypi.

Pileus glabrescent.

P. trizonatus, *Cooke*, Grev. xii. 17.Hab. : Queensland.—*F. v. M.*

*** Abietini.

P. stereoides, *Fries*, Hym. Eur. 569.

Hab. : Upper Daintree River.—Grev. xii. 17.

B.—Scortei.

* Inner substance pallid.

P. peradeniæ, *Berk. et Br.*, Linn. Journ. xiv. 51.

Hab. : Brisbane and Northern scrubs.

P. rigidus, *Lév. Ann.*

Hab. : Port Douglas.

P. Persoonii, *Fries.* (*Dædalea sanguinea*, Klot.)

Hab. : Brisbane River scrubs.

C.—Lutescentes.

* Inner substance fulvo-ferruginous.

*** Inner substance olivaceous.

P. aratus, *Berk.*, Linn. Journ. xvi. 53 = *TRAMETES ACUPUNCTATUS*, *Berk.*, Linn. Journ. xiii. 164.

Hab. : Queensland.—Grev. x. 100.

P. luteo-olivaceus, *Berk. et Br.*, Linn. Trans. i. 402.

Hab. : Brisbane River scrubs.

P. luteo-olivaceus, var. tenuis.

Hab. : Port Douglas.

D.—Caperati.

* Inner substance brown.

P. Hasskarlii, *Lév.*, Ann. Sci. Nat. 1844, 190 = *P. FERRUGINEUS*, *Jungh.*Hab. : Queensland.—*F. v. M.*, *Fragm.* xi.

P. cichoraceus, *Berk.*, *Fries Nova Symb.* 76 = *INTYBACEUS*, *Berk.*, *Hook. Journ.* i. 149.

Hab.: Brisbane River and Northern scrubs.

P. xerampelinus, *Kalchb.*, *Grev.* iv. 72.

Hab.: Rockhampton.—*L.c.*

H.—MEMBRANACEI.

Pileus papery, very thin; inner substance wholly longitudinally fibrose, not at all floccose; pores very small.

P. breviporus, *Cooke*, *Grev.* xii. 17.

Hab.: Endeavour River.—*L.c.*

I.—SUBRESUPINATI.

Pileus subresupinate or the margin reflexed.

P. bireflexus, *Berk. et Br.*, *Grev.* x. 101.

Hab.: Queensland.—*L.c.*

P. eriophora, *Berk. et Br.*, *Linn. Trans.* ii. 60 t. 11 f. 5, 6.

Hab.: Brisbane River scrubs.

P. Broomei, *Rabh.*, *Fungi Eur. Ex. No.* 2004.

Hab.: Enoggera Creek.

PORIA, *Pers. Syn.* p. 542.

Resupinate, effuse, from above porous. Pileus for the most part obliterated. Substance fleshy, finely fibrose, coriaceous or membranaceous.

A.—MOLLUSCI.

Pileus widely spread, fleshy, soft, with minute pores for the most part equal, rotundate.

* Pores persistently white.

† Hymenium splitting in chinks.

P. vulgaris, *Fries*, *Hym. Eur.* 578 = *P. CELLULOSUS*, *Whlbg.*, *Succ.* ii. 961.

Hab.: Queensland.—*Grev.* x. 103.

P. calcea, *Berk. et Br.*, *Linn. Journ.* xiv. 55.

Hab.: Trinity Bay Ranges.

†† Hymenium scarcely cracking.

P. medulla-panis, *Pers.*, *Syn.* 544 = *P. BIBULUS*, *Pers.*

Hab.: Enoggera Creek.

** Pores white, afterwards pallid-ochraceous.

P. callosa, *Fries*, *Hym. Eur.* 577.

Hab.: Brisbane.

**** Pores carnose.

P. hyposclera, *Berk.*, *Grev.* x. 103.

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

B.—VAPORARI.

Pileus widely spread, fleshy; pores unequal, angular, commonly somewhat large.

* Pores persistently white.

P. vaporaria, *Fries*, *Hym. Eur.* 579 = *CELLARIS*, *Lib. Crypt. Exs.*

Hab.: Brisbane, on bamboo roots.

C.—RIGIDI.

Pileus effuse, coriaceous, dry, tough; pores somewhat large, rotundate, subhexagonal, or angular, nearly equal; dissepiments short, rigid.

* Pores white.

P. corticola, *Fries*, *Hym. Eur.* 580.

Hab.: Queensland.—*F. v. M.*

***** Pores ferruginous or nut-brown.

P. ferruginosa, *Fries*, *Syst. Myc.* i. 378 = *CORIUM*, *Kunze* in *Herb. Berk.*

Hab.: Logan River scrubs.

P. contigua, *Fries*, *Syst. Myc.* 378 = *P. CROCEUS*, *Karst.*

Hab.: Daintree River.—*Grev.* xii. 17.

D.—RETICULATI.

Pileus irregularly effuse, the greater number forming a crust, thin-membranaceous. Pores somewhat large, distant, cupulæ-form, with very short somewhat veined dissepiments.

* Pores persistently white.

P. dictyopora, *Cooke*, *Grev.* xii. 17.

Hab.: Toowoomba.—*L.c.*

TRAMETES, *Fries.*

T. pyrrhocreas, *Berk.*, *Linn. Journ.* xiii. 164.

T. versatilis, *Berk.*, *Lond. Journ. of Bot.* 1842, 150.

T. acupunctata, *Berk.*, *Linn. Journ.* xiii. 164.

T. devexa, *Berk.*, *Linn. Journ.* xiii. 165.

T. rigida, *Berk. et M.*, *Ann. Sci. Nat.* 1849.

T. pictus, *Berk. et Br.* (*T. Muelleri*, var., *Berk. Linn. Journ.* x. 320.)

T. occidentalis, *Fries*, *Epier.* 491.

- T. lactinea**, *Berk.*, Ann. Nat. Hist. x. 371.
Hab.: Endeavour River.—Grev. x. 131.
- T. lævis**, *Berk.*, Hook. Journ. 1847, 507.
Hab.: Port Denison.—Grev. x. 131.
- T. colliculosa**, *Berk.*, Hook. Journ. 1847, 506.
Hab.: Port Denison.—Grev. x. 131.
- T. versiformis**, *Berk.*, Linn. Journ. xiv. 56.
Hab.: Rockhampton.—Grev. x. 132.
- T. Curreyi**, *Cooke*, Trans. Bot. Soc. Edin. (*T. umbrina*, Curr., not of Fries.)
Hab.: On old fruit-trees, Brisbane.—*Bailey*.
- T. cristata**, *Cooke*, Grev. x. 132.
Said to particularly differ from *T. versatilis* in the branched hairs of the pileus.
Hab.: Port Denison.—Grev. x. 132.
- T. acuta**, *Cooke*, Grev. x. 132.
Hab.: Port Denison.—Grev. x. 132.
- T. serpens**, *Fries*.
- T. obstinatus**, *Cooke*, Grev. xii. 17.
Hab.: On stumps of trees, Endeavour River.—Grev. xii. 18.
- T. ochroflava**, *Cooke*, Grev. ix. 12.
Hab.: Brisbane.
- T. Muelleri**, *Berk.*, Linn. Journ. x. 320.
Hab.: Queensland.—*F. v. M.*
- T. ochroleucus**, *Berk.* = POLYPORUS BRISBANENSIS, *Berk. et Br.*
Hab.: Brisbane.

DEDALEA, Fries.

- D. sanguinea**, *Klot.*, Fries Epicr. 493. (*Polyporus Persoonii*, Fries.)
- D. tenuis**, *Berk.*, Hook. Journ. 1842, 151.
- D. Bowmani**, *Berk.*, Linn. Journ. xiii. 165.
- D. unicolor**, *Fries*, Hym. Eur. 588.
- D. Sprucei**, *Berk.*, Hook. Journ. 1856, 236.
- D. aspera**, *Klot.*, Linnæa viii. 480.
- D. incompta**, *Berk.*, Linn. Trans. ii. 61 t. 12 f. 7-9.
- D. scalaris**, *B. et Br.*, Linn. Trans. ii. 61.
- D. subcongener**, *Berk.*
Hab.: Queensland.—Grev. x. 133.
- D. sinulosa**, *Klot.*, Linnæa xiii. 482.
Hab.: Port Denison.—Grev. x. 133.
- D. aulacophyllus**, *Berk.*, Linn. Journ. xiii. 165.
Hab.: Queensland.—*F. v. M.*

HEXAGONA, Fries.

- H. polygramma**, *Mont.*, Cuba t. xiv. f. 3.
H. subtenuis, *Berk.*
H. Muelleri, *Berk.*, Linn. Journ. xiii. 166.
H. umbrinella, *Fries*, Fungi Natal 17.
H. tenuis, *Berk.* in Knuth Synop. 10.
H. crinigera, *Fries*, Epicr. 496.
H. Wightii, *Klot.*, Fries Nova Symb. 84.
H. rigida, *Berk.*, Linn. Journ. xvi. 54.
H. similis, *Berk.*, Hook. Journ. 1846, 4.
H. decipiens, *Berk.*, Linn. Journ. xiii. 166.
 Hab. : Mrs. C. G. Spencer, Albany Downs, Mitchell District.

LASCHIA, Fries.

- L. Thwaitesii**, *Berk et Br.*, Linn. Journ. xiv. 58.
L. pustulata, *Berk. et Br.*, Linn. Journ. xiv. 58.
L. cæspitosa, *Berk.*, Hook. Journ. 1854, 229.
L. tremellosa, *Fries*, Linnæa v. 533.
 Hab. : Mount Dryander.—Grev. x. 134.

MERULIUS, Haller.

- M. tenuissimus**, *Berk. et Br.*, Linn. Trans. ii. 62.
M. serpens, *Fries*.
M. aureus, *Fries*, Hym. Eur. 592.
M. Baileyi, *B. et Br.*, Linn. Trans. ii. 62 t. 13 f. 1.
M. lacrymans, *Schum.*, Fries Hym. Eur. 594.

TRIBE III.—HYDNEI.

HYDNUM, Fries.

- H. merulioides**, *Berk. et Br.*, Linn. Trans. ii. 63 t. 13 f. 4.
H. Muelleri, *Berk.*, Linn. Journ. xvi. 167.
H. ochraceum, *Pers.*, Fries Hym. Eur. 612.
H. udum, *Fries*, Hym. Eur. 615.
H. gilvum, *Berk.*, Hook. Journ. 1851, 168.
H. membranaceum, *Bull.*
H. flavum, *Klot.*, Ann. Nat. Hist. x. 380.
 Hab. : Queensland.—Grev. x. 135.
H. graveolens, *Del.*, Fries Epicr. 509. Strong-scented, the whole plant having a strong smell of *Melilot*, even after being kept for years.—*Berk.*

H. tomentosum, *Fries*, *Epicr.* 510.

H. gelatinosum, *Scop.*

H. coralloides, *Fries*, *Hym. Eur.* 607.

Hab. : Queensland.—*F. v. M.*

IRPEX, *Fries.*

I. flavus, *Klot.*, *Linnæa* viii. 488.

I. zonatus, *Berk.*, *Hook. Journ.* 1854.

I. tabacinus, *Berk. et Curt.*, *Nor. Amer. Fungi No.* 198.

I. maximus, *Mont.*, *Ann. Nat. Sci.* 1837.

Hab. : Queensland.—*Grev.* x. 135.

I. gausapatus, *Berk. et Curt.*, *Nor. Amer. Fungi No.* 2922.
(Name referring to its rough coating.)

Hab. : Endeavour River.—*Grev.* xii. 18.

SISTOTREMA, *Pers.*

S. irpicinum, *Berk. et Br.*, *Linn. Trans.* ii. 63.

RADULUM, *Fries.*

R. molare, *Fries*, *Hym. Eur.* 623.

PHLEBIA, *Fries.*

P. radiata, *Fries*, *Hym. Eur.* 625.

P. coriacea, *Berk.*, *Linn. Journ.* xviii. 385.

P. merismoides, *Fries*, *Epicr.* 526.

GRANDINIA, *Fries.*

G. granulosa, *Fries*, *Hym. Eur.* 626.

TRIBE IV.—THELEPHOREI, *Fries.*

CRATERELLUS, *Fries.*

C. cornucopioides, *Fries*, *Hym. Eur.* 631.

C. confluens, *Berk. et Curt.*, *Linn. Journ.* ix. 423.

Hab. : Endeavour River.—*Grev.* xi. 28.

CLADODERRIS, *Pers.*

C. dendritica, *Pers.* in *Freye. Voy.* t. 1 f. 4.

LACHNOCLADIUM, *Lév.*

L. furcellatum, *Lév.*, *Ann. Sci. Nat.* 1846, 159.

L. simulans, *B. et Br.*

THELEPHORA, Ehrh.

T. lamellata, *Berk. et Curt.*, Sill. Journ. 1851, 95.

T. pedicellata, *Schw.*, Syn. Car. 108.

T. congesta, *Berk.*, Linn. Journ. xvi. 168.

T. cristata, *Fries*, Hym. Eur. 637.

T. caryophyllea, *Fries*, Hym. Eur. 634.

T. palmata, *Fries*.

T. (Coniophora) atrovirens, *Berk. et Br.*

Hab. : On branches of shrubs, Dinmore, Brisbane River.

STEREUM, Fries.

S. Sowerbei, *Berk.*, Fries Hym. Eur. 633.

S. spongiaepes, *Berk. et Br.*, Linn. Journ. xviii. 385.

S. spathulatum, *Berk.*, Hook. Journ. viii. 274; Linn. Trans. ii. t. 14 f. 3-7.

S. illudens, *Berk.*

S. decipiens, *Berk.*, Hook. Journ. 1845.

S. simulans, *B. et Br.*, Linn. Trans. ii. 64 t. 13.

S. complicatum, *Fries*, 518; Linn. Trans. ii. 64 t. 14.

S. fasciatum, *Schw.*, Syn. 106.

S. elegans, *Fries*, Epier. 545.

S. lobatum, *Kunze* in Fries Epier. 347.

S. spadiceum, *Fries*, Hym. Eur. 640.

S. hirsutum, *Fries*, Hym. Eur. 639.

S. Schomburgkii, *Berk.*, Linn. Journ. xvi. 168.

S. ostrea, *Nees*, Fries Nova Sym. 93.

S. nitidulum, *Berk.*, Hook. Journ. 1845, 638.

S. semilugens, *Kalchb.*, Grev. ix. 1.

S. radiato-fissum, *Berk. et Br.*, Linn. Trans. ii. 63 t. 14 f. 8-11.

S. prolificans, *Berk.*

S. caperatum, *Berk. et Mont.*, Syll. 175.

S. Thozetii, *Berk.*, Linn. Journ. xviii. 385.

S. Boryanum, *Fries*, Epier. 547.

S. purpureum, *Fries*, Hym. Eur. 639.

Hab. : Queensland.—*F. v. M.*

S. perlatum, *Berk.*, Hook. Journ. 1842, 153.

Hab. : Port Denison.—Grev. xii. 18.

S. molle, *Lév.*, Ann. Sci. Nat. 1846, 147.

Hab. : Daintree River.—Grev. xii. 18.

S. sulphureum, *Fries*, Berk. in Grev. i. 164.

Hab.: Queensland.—Grev. xi. 30.

S. luteo-badium, *Fries*.

Hab.: Queensland.—*F. v. M.*

AURICULARIA, Bull.

Hymenium irregularly and distantly folded, gelatinous when wet, different in substance from the pileus.—*Cooke* in *British Fungi* i. 319.

A. albicans, *Berk.*, Linn. Journ. xiii. 170.

A. lobata, *Fries*, Hym. Eur. 646.

A. mesenterica, *Fries*, Hym. Eur. 646.

A. Pusio, *Berk.*, Linn. Journ. xvii. 386.

DICTYONEMA, Bl. et N.

D. æruginosum, *Nees*, Acta N. Cur. xiii. t. 2.

HYMENOCHETE, Lév.

H. cacao, *Berk.*, Linn. Journ. x. 333.

H. tenuissima, *Berk.*, Linn. Journ. x. 333.

H. phæa, *Berk.*, Grev. viii. 146.

H. rubiginosa, *Lév.*, Ann. Sci. Nat. 1846, 151.

H. rhabarbarina, *Berk.* (*Corticium rhabarbarina*, Berk.; *Cooke* in Grev. viii. 148.)

H. olivaceum, *Cooke*, Grev. xiv. 11.

Hab.: Toowoomba, on dead branches.—Grev., l.c.

H. innatum, *Cooke et Mass.*, Grev. xv. 99.

Hab.: Daintree River.

PENIOPHORA, Cooke, Grev. viii. 20.

(Name derived from the Greek, meaning shuttle-bearing.)

Plants coriaceous or subcarnose, effuse; hymenium beset with short, rigid, uncoloured, rough, projecting cells (metuloids), which are attenuated upwards or subfusiform, and give to the surface a velvety appearance.—*Cooke*, l.c.

P. sparsa, *Berk.*, Grev. viii. 21.

P. deglubens, *Berk.*, Linn. Journ. xviii. 385.

P. bambusicola, *B. et Br.*, Trans. Linn. Soc. ii. 64.

CORTICIUM, Fries.

C. olivaceum, *Fries*, Hym. Eur. 660.

C. miniatum, *Cooke*, Grev. ix. 2.

- C. incarnatum**, *Fries*, Hym. Eur. 654.
C. amorphum, *Pers.*, Syn. 165; *Fries*, Hym. Eur. 648.
C. nudum, *Fries*, Hym. Eur. 655.
C. læve, *Fries*, Hym. Eur. 649.
C. cæruleum, *Fries*, Hym. Eur. 651.
C. arachnoideum, *Berk.*, *Fries* Hym. Eur. 649.
C. viscosum, *Pers.*
C. anthochroum, *Fries* Hym. Eur. 661.
C. ochroleucum, *Berk.*
 Hab.: On dead branch of Lemon-tree, Toowoomba.—*H. Tryon*.

HYPOCHNUS, *Fries*.

- H. rubro-cinctus**, *Ehrenb.*, *Hor. Phys.* 85.

CYPHELLA, *Fries*.

- C. Schneideri**, *Broome*.
C. villosa, *Pers.*

TRIBE V.—CLAVARIEI.

CLAVARIA, *Linn.*

- C. rugosa**, *Bull.*, *Fries* Hym. Eur. 669.
C. argillacea, *Pers.*, *Fries* Hym. Eur. 675.
C. stricta, *Pers.*, *Fries* Hym. Eur. 673.
C. Kunzei, *Fries*, Hym. Eur. 669.
C. rufa, *Flora Dan.* t. 775 f. 1.
C. simulans, *Berk. et Br.*
C. botrytis, *Pers.*, Hym. Eur. 667.
C. cristata, *Pers.*, *Fries* Hym. Eur. 668.
C. lætissima, *Pers.*, *Linn. Journ.* xviii. 386.
C. miltina, *Berk.*, *Hook. Journ.* 1852, 140.
C. portentosa, *B. et Br.*, *Linn. Trans.* ii. 65 t. 14 f. 15.
C. aurea, *Schff.*, *Fries* Hym. Eur. 670.
C. fastigiata, *DC.*, *Fries* Hym. Eur. 667.
C. Archeri, *Berk.*, *Flora Tasm.* ii. 261 t. 183 f. 3. (After *W. Archer*.)
C. formosa, *Pers.*, *Fries* Hym. Eur. 670.
 Hab.: Queensland.—*Grev.* xi. 32.
C. mucida, *Fries*, Hym. Eur. 679.
 Hab.: Queensland.—*F. v. M.*
C. Colensoi, *Berk.* in *New Zeal. Flora* ii. 186.
 Hab.: Roadside near General Cemetery, Toowong.

CALOCERA, Fries.

C. cornea, *Fries*, Hym. Eur. 680.

C. guepinoides, *Berk.*, Hook. Journ. 1845, 61.

TRIBE VI.—TREMELLINI.

TREMELLA, Fries.

(So named from its tremulous substance.)

Plants gelatinous, tremulous, immarginate. Hymenium not papillate, surrounding the whole of the fungus.—*Cooke's British Fungi* i. 344.

T. lutescens, *Fries*, Hym. Eur. 690.

Hab. : Albany Downs, Mitchell District.—*Mrs. C. G. Spencer*.

T. mesenterica, *Retz.*, Fries Hym. Eur. 690.

Hab. : Queensland.—Grev. xii. 19.

T. microscopica, *B. et Br.*

T. foliacea, *Pers.*, Fries Hym. Eur. 690.

Hab. : Queensland.—*F. v. M.*

HIRNEOLA, Fries.

H. auricula-judæa, *Fries*, Hym. Eur. 695.

H. polytricha, *Fries*, Fungi Nat. 27.

H. rufa, *Fries*, Fungi Nat. 27.

H. Lesueurii, *Mont.* = *AURICULARIA LESUEURII*, *Borg.* =

H. AURICULA-JUDÆA.)

H. hispidula, *Berk.*, Ann. Nat. Hist. iii. 396.

Hab. : Queensland.—*F. v. M.*

H. auriformis, *Fries*.

Hab. : Queensland.—*F. v. M.*

GUEPINIA, Fries.

G. spathularia, *Fries*, Elen. ii. 32.

G. pezizæformis, *Berk.*, Hook. Journ. 1845, 60.

Hab. : Queensland.—Grev. xi. 34.

DACRYMYCES, Nees.

D. sacchari, *Berk. et Br.*, Linn. Trans. ii. 65.

SUBORDER II.—GASTEROMYCETES, *Fries*.TRIBE I.—PHALLOIDEI, *Fries*.

DICTYOPHORA, Desv.

D. multicolor, *Berk. et Br.*, Linn. Trans. ii. 65 t. xiv. f. 16.

D. merulina, *Berk.*, Intell. Obs. ix. 404.

D. speciosa, *Klot.*Hab.: Queensland.—*F. v. M.***D. aurantiaca**, *Montg.* A small var. *discolor*, *Kalchb.*, *Grev.* ix. 2.Hab.: Wigton.—*F. v. M.*, *Grev.* ix. 2.**D. tahitensis**, *Schlecht*, *Diss.*Hab.: Queensland.—*F. v. M.*PHALLUS, *Linn.***P. calyptratus**, *Berk. et Br.*, *Linn. Trans.* ii. 67.**P. Watsoni**, *Berk.*, *Linn. Journ.* xviii. 367.**P. quadricolor**, *B. et Br.*, *Linn. Trans.* ii. 68 t. 14.CYNOPHALLUS, *Fries.***C. papuasius**, *Kalchb.*, *Grev.* iv. 74. (*Mutinus papuasius*, *Kalchb.*, *Grev.* iv. 74.)**C. Caleyi**, *Berk.* (*Phallus libidinosus*, *Cayley.*)CLATHRUS, *Mich.***C. crispus**, *Turpin*, *Berk. Ann. Nat. Hist.* ix. 446.**C. pusillus**, *Berk.*, *Hook. Journ. Bot.* 1845.ILEODICTYON, *Tul.***I. gracile**, *Berk.*, *Hook. Journ. Bot.* 1845.ASERÖE, *Labill.***A. rubra**, *Labill.*, *Voy. Austr.* 145.TRIBE II.—LYCOPERDACEI, *Fries.*LYCOGALA, *Mich.*

Peridium composed of a double membrane, papyraceous, persistent, bursting irregularly at the apex, externally warty or furfuraceous. Flocci delicate, adnate to the peridium.—*Cooke's British Fungi.*

L. epidendrum, *Fries.*

Hab.: On an old pine log, Enoggera Creek (Peachey's Scrub).

PODAXON, *Desv.***P. pistillaris**, *Fries*, *Syst. Myc.* iii. 63.

P. carcinomatis, *Fries*, *Syst. Myc.* iii. 62. Plentiful on ant-hills during summer, 1887.

PHELLORINA, Berk., Lond. Journ. Bot. ii. 421.

(Name derived from the Greek, referring to the cork-like skin of the plants.)

Peridium tough, persistent, with a corky skin, apex opening irregularly, containing a conglomerated mass of globose spores, with a few hyaline flocci amongst them. Stipes hollow, the inside lined by a cartilaginous substance. Spores yellow.—*Berk., l.c.*

P. strobilina, *Kalchb.*, Grev. ix. 4. (*Scleroderma strobilina*, *Kalchb.*, Grev. iv. 74.)

MITREMYCES, Nees.

(Name from the Greek, meaning bonnet fungus.)

Peridium cartilaginous, opening by a sinuous, thickened, mostly bright-red orifice, which is capped by a hard deciduous outer coat. There is, moreover, a thin inner sac, which fills only a portion of the peridium, containing the spores mixed with a few threads. The peridium is supported beneath by cartilaginous intricate bodies, which together form a sort of stem.—*Berk.*

M. viridis, *Berk.*, Hook. Journ. Bot. 1851, 201.

Hab.: Queensland.—*F. v. M.*

TULOSTOMA, Bull.

T. leprosum, *Kalchb.*, Grev. iv. 72.

T. mammosum, *Fries*, Syst. Myc. iii. 42.

MESOPHELLIA, Berk.

M. ingratisissima, *Berk. et F. v. M.*, Linn. Journ. xviii. 386. (*Inoderma ingratisimum*, *Berk.*, Linn. Journ. xviii. 386.)

M. arenaria, *Berk.*, Linn. Trans. xxii. 131 t. 25. (*Inoderma arenarium*, *Berk.*, Linn. Journ. xviii. 386.)

DIPLODERMA, Link.

(Name referring to the double peridium.)

Peridium double, exterior woody-fibrous, closed, interiors separate, cartilaginous, central nucleus woody, capillitium radiate.—*Grev. xv. 99.*

Differs from *Mesophellia*, *Berk.*, in the distinct double peridium. The hard central nucleus is connected with the inner wall of the inner peridium by the radiating threads of the capillitium.—*Grev., l.c.*

D. suberosum, *Cooke et Mass.*, Grev. xv. 100

Hab.: On the ground, Brisbane.—*Grev. xv. 100.*

GEASTER, Mich.

- G. minimus**, Schw., Sym. 58 No. 327.
G. Guilfoylei, *F. v. M.* in Herb. Berk. No. 4564. (Apparently the same as *G. rufescens*, Pers., Cooke in Grevillea xi. 60.)
G. saccatus, Fries, Syst. Myc. iii. 16.
G. hygrometricus, Pers., Syn. Fungi 135.
G. lignicola, Berk., Linn. Journ. xviii. 386.
G. striatus, DC., Fries Syst. Myc. iii. 13.
G. lageniformis, Vitt., Mon. Lycop. t. 1 f. 2.
G. floriformis, Vitt., Mon. Tub. 18.
G. australis, Berk., Flora Tasm. ii. 265. t. 183 f. 10.
G. striatulus, Kalchb., Grev. ix. 3. (*G. striatus*, var. *minor*.)
 Hab.: Queensland.—Grev. xi. 60.
G. fimbriatus, Fries, Syst. Myc. iii. 16.
G. subiculosum, Cooke et Mass., Grev. xv. 97.
 Hab.: On rotten wood, Trinity Bay.

BOVISTA, Pers.

- B. lilacina**, Mont. et Berk., Hook. Journ. Bot. 1845.
B. Muelleri, Berk., Linn. Journ. xvi. 171.
B. cervina, Berk.

LYCOPERDON, Tournef.

- L. gemmatum**, Batsch, Fries Syst. Myc. iii. 36.
L. pusillum, Batsch, Cont. ii. 123.
L. tephrum, Berk. et Br.
L. cælatum, Fries, Syst. Myc. iii. 32.
L. giganteum, Batsch.
L. australe, Berk., Flora Tasm. ii. 266.
 Hab.: Endeavour River.—Grev. xi. 61. On logs, Mount Mistake.
L. pyriforme, Schff., Fries. Syst. Myc. iii. 29.
 Hab.: Queensland.—*F. v. M.*

MYCENASTRUM, Desv.

- M. phæotrichum**, Berk., Hook. Journ. ii. 418.
M. corium, Berk., Hook. Journ. 1845, 518.
M. olivaceum, Cooke et Mass., xvi. 33.

POLYSACCUM, Fries.

- P. pisocarpum**, Fries, Syst. Myc. iii. 54.
P. olivaceum, Fries, Syst. Myc. iii. 54.

P. australe, *Lév.*, Ann. Sci. Nat. 1848.

P. tuberosum, *Mich.*, Linnæa v. 694.

Hab.: Queensland.—*F. v. M.*

P. microcarpum, *Cooke et Mass.*, xvi. 28.

Hab.: Toowoomba.

SCLERODERMA, Fries.

S. vulgare, *Fries*, Syst. Myc. iii. 46.

S. Bovista, *Fries*, Syst. Myc. iii. 48.

S. geaster, *Fries*, Syst. Myc. iii. 460.

S. pandanaceum, *F. v. M.*, Linn. Journ. xvi. 171.

S. verrucosum, *Pers.*, Syn. Fungi 154.

Hab.: Queensland.—*Grev.* xii. 19.

TRIBE III.—NIDULARIACEI, *Fries.*

CYATHUS, Hall.

C. intermedius, *Tulasne*, Ann. Sci. Nat. 1844, 72.

C. fimetarius, *DC.*, Fl. Fries v. 104.

C. vernicosus, *DC.*, Fl. Fries ii. 270 (*Nidularia campanulata*,
Sow.)

C. pusio, *Berk.*, Linn. Journ. xviii. 387.

C. pezizoides, *Berk.*, Linn. Journ. xviii. 387.

C. fimicola, *Berk.*, Linn. Journ. xviii. 387.

Hab.: Brisbane, on dung.

C. Lesueurii, *Tul.*, Ann. Sci. Nat. 1844, 79.

Hab.: Rockhampton.—*Grev.* xi. 62. Near Ipswich.—*R. J. Scott.*

C. Montagnei, *Tul.*, Ann. Sci. Nat. 1844, 70.

Hab.: Queensland.—*Grev.* xi. 62.

CRUCIBULUM, Tul.

C. vulgare, *Tulasne*, Ann. Sci. Nat. 1844, 90.

TRIBE IV.—HYPOGÆI.

HYDNANGIUM, Wallr.

H. australiense, *Berk. et Br.*, Linn. Trans. ii. 68.

HYMENOASTER, Vitt.

Plant globose, fleshy, firm or rather soft. Peridium fleshy or thin, running down into an absorbing base. Cavities at first empty, radiating or irregular. Trama composed of elongated cells, but not of byssoid flocci, and therefore not easily separable. Spores various.—*Cooke's* British Fungi i. 359.

H. lycoperdineus, *Vitt.*

SUBORDER III.—MYXOMYCETES.

TRIBE I.—CALCAREÆ, *Rostf.***PHYSARUM**, *Pers.*

(So named from the bladder-like appearance of the peridium.)

Peridium simple membranaceous, very delicate, naked, quite smooth, bursting irregularly. Columella none.—*Cooke's British Fungi* i. 389.

P. Muelleri, *Berk.*, *Ceylon Fungi*, *Linn. Journ.* xv. 2.

Hab.: Crocodile Creek.

ÆTHALIUM, *Link.*

Æ. septicum, *Fries.* (*Fuligo violacea*, *Pers.*)

SPUMARIA, *Fries.*

S. alba, *DC.*

TILMADOCHÉ, *Fries.*

T. mutabilis, *Rostf.*, *Mon.* 127.

T. nutans, *Pers.*, *Rostf. Mon.* 127.

CHONDRIODERMA, *Rostf.*

C. difforme, *Pers.*, *Rostf. Mon.* 174.

Hab.: Three-mile Scrub in 1884. Also on grass, Darling Downs.—*H. Tryon*, 7th Jan., 1887.

C. spumaroides, *Rostf.*, *Mon.* 174.

DIDYMIUM, *Schrad.*

D. farinaceum, *Schr.*, *Rostf. Mon.* 177.

D. serpula, *Fries.*

TRIBE II.—AMAUROCHÆTEÆ, *Rostf.***STEMONITIS**, *Gled.*

S. fusca, *Roth.*, *Rostf. Mon.*, 193.

S. ferruginea, *Rostf.*, *Mon.* 196.

TRIBE III.—ANEMÆ, *Rostf.***TUBULINA**, *Pers.*

T. nitidissima, *Berk.*, *Linn. Journ.* xviii. 387.

CLATHROPTYCHIUM, *Rostf.*

C. rugulosum, *Wallr.*, *Rostf. Mon.* 225.

Hab.: On logs, Enoggera Creek.

TRIBE IV.—ARCYRIACEÆ.

ARCYRIA, Hill.

- A. punicea**, *Pers.*, Rostf. Mon. 268.
A. nutans, *Fries*, Syst. Myc. iii. 180.
A. cinerea, *Bull.*, Rostf. Mon. 272.
A. incarnata, *Pers.*, Rostf. Mon. 275.
A. ferruginea, *Sauter*, Rostf. Mon. 280.
 Hab. : Rockhampton.—Grev. xi. 62.

TRIBE V.—TRICHIACEÆ.

HEMIARCYRIA, Rostf.

- H. applanata**, *Cooke et Mass.*, Grev. xvi. 20.

Sporangia flattened, discoid, usually combined into a lobate plasmodiocarp, externally glaucous or pale cinereous, internally bright-yellow, apparently uniformly sessile. Tube of capillitium furcate or anastomosing, scarcely so wide as the spores, thickening in the form of half-rings (as in *Arcyria*) encircling the tubes in a diffused spiral. Spores globose, warted, 12 μ diameter.

Hab : On a rotten *Cycas* at Bowen Park, in company with *Peziza erinacea*.

The threads of the capillitium resemble those of some species of *Arcyria*, but the entire plant seems to have a closer affinity to such species as *Hemiarcyria serpula*. When growing it might at first be mistaken for *Peziza cinerea*, Grev. xvi. 20. As Dr. Cooke found this plant and *Cerebella paspali* more than ordinarily remarkable, his descriptions and notes are reproduced entire.—F. M. B.

SUBORDER IV.—ÆCIDIOMYCETES.

TRIBE I.—PUCCINLÆI.

RÆSTELIA, Rebert.

- R. polita**, *Berk.*, Linn. Trans. ii. 67 t. 15 f. 1-5.

ÆCIDIDIUM, Pers.

- Æ. apocynatum**, *Schw.*, Berk. in Linn. Trans. (2nd series) i. 407.
Æ. nymphoidearum, *B. et Br.*, Linn. Trans. ii. 67. (*Æ. nymphoides*, DC., Fl. Fries.)

CRONARTIUM, Fries.

- C. asclepiadeum**, *Fries*, Obs. i. 220.

PUCCINIA, Pers.

- P. Rumicis**, *Lasch*.

Very thick on the leaves of *Rumex* in Albert Park, Sept. 1886.

P. graminis, Pers., Disp. Fungi 39. (Corn Mildew.) (*Trichobasis rubigo-vera*, Cooke, M. F. t. 7 f. 140-149; *Uredo rubigo*, Eng. Fl. v. 375; *U. linearis*, Eng. Fl. v. 375.)

Hab.: On *Andropogon intermedius*, Albert Park, Dec. 1886; and *Leersia hexandra*, near Sandgate.

P. caulincola, Corda.

Hab.: On *Hypochæris glabra*, Albert Park, 1886-7.

P. helianthi, Schw.

Hab.: Ipswich, on Sunflower leaves.

CEREBELLA, Cesati in Bot. Zeit. 1857 p. 669; Syll. Fungi iv. 761.

(So named from the stroma resembling a brain.)

Stroma lacunose-plicate. Conidia globose, dark-brown, 5 to 6-radiate celled.

C. paspali, Cooke et Mass., Grev. xvi. 20. Stroma convex, hemispherical (2-3 mm.) minutely gyroso-plicate, dark olive; sporules subglobose or subquadrate, divided into 3 or 4 cells (after the manner of *Urocystis*) which ultimately separate, olive, epispore smooth, $20 \times 25 \mu$, ultimate cells 10-12 μ diameter. Basidia of branched interlaced hyphæ, which are tinged red, although hyaline, and septate towards the base.—Grev., l.c.

Hab.: Near Brisbane on the inflorescence of *Paspalum scrobiculatum*.

This genus was established by Cesati in 1851, but the diagnosis appears never to have been published. The typical species *Cerebella andropogonis* was issued by Klotzsch ("Herbarium vivum Mycologicum," No. 1587), and the brief description published in the "Botanische Zeitung," 1851, p. 699. Berkeley wrote an account of it, with rude figures, in the "Gardeners' Chronicle," 1852, p. 643; but little notice appears to have been taken of it by Saccardo, who excludes it.

The affinities of this genus could not be determined by Cesati, and Berkeley also seems to have been in doubt, although he suggested a possible relationship to *Urocystis*. This suggestion appears to be reasonable as far as *C. andropogonis* is concerned, where the compound spores arise from a cellular stroma, but in the present species the stroma is filamentous, at least outwards, and the threads and spores suggest at once *Stemphylium*, as interpreted by Prof. Saccardo; whilst on the other hand the habit and general appearance suggest an alliance with *Ustilagines*. For the present, and until further information is obtained, we prefer to accept Berkeley's suggestion, and place the genus temporarily near *Urocystis*.—C. et M., l.c.

UROMYCES, Lév.

(So named from its giving to the plant on which it lives a scorched appearance.)

Minute epiphyllous fungi. Spores unilocular, attached permanently to a decided peduncle of greater length.—Cooke's British Fungi ii. 518.

U. Amygdali, Cooke.

Hab.: Toowoomba.—*H. Tryon*. On almond and peach leaves; also on peach leaves in Mrs. Coxen's garden, Bulimba.—*F. M. B.*

MELAMPSORA, Cast.

M. phyllodiorum, *Berk. et Br.*, Linn. Trans. ii. 67 t. 15 f. 6-8.

M. nesodaphnes, *Berk. et Br.*, Linn. Trans. ii. 67 t. 15 f. 9.

UREDO, Lév.

U. cichoracearum, *DC.*

Hab.: Brisbane on *Bidens pilosa*, 1886-7.

U. Maydis, *Batsch.*

Hab.: On maize; very bad during the early part of 1887 at Toowoomba.—*H. Tryon.*

TRIBE II.—USTILAGINEI, *Tul.*

USTILAGO, Lamk.

U. axicola, *Berk.*, Ann. Nat. Hist. 1852 No. 55. (Often occurring extensively on *Fimbristylis*.)

U. bromivora, *Tul.*

Hab.: Albert Park, on *Anthistiria ciliata*.—*H. Simmonds.*

U. carbo, *Tul.*, Mem. Ustil. 78. (*U. segetum*, Ditm.)

U. Cesatii, *F. d. W.*

Hab.: Very common in Southern Queensland on *Paspalum scrobiculatum*.

U. Emodensis, *Berk.*, Hook. Journ. 1851, 202.

SOROSPORIUM, Rud.

S. Eriachnis, *Thuemen.*

THECAPHORA, Fing.

Spores oblong or subglobose, smooth or echinulate, agglomerated few or many into more or less angular masses enclosed in cysts.—*Cooke's British Fungi* ii. 515.

T. globuligera, *Berk. et Br.*, Linn. Trans. i. 407.

TILLETIA, Tul.

T. epiphylla, *B. et Br.*, Linn. Trans. ii. 67.

T. caries, *Tul.*, Mem. Ustil. 113.

GRAPHIOLA, Poit.

G. phœnices, *Poit.*, Ann. Sci. Nat. 1824, 473.

On the Date and other palms in cultivation.

SUBORDER V.—DISCOMYCETES.

TRIBE I.—HELVELLACEI, Fries.

LEOTIA, Fries.

Receptacle pileate, supported in the centre by the stem; margin revolute, covered everywhere with the smooth somewhat viscid hymenium.—*Cooke's British Fungi.*

L. lubrica, *Pers.*, *Cooke's Myc.* t. 44 f. 171. (Shining.)

GEOGLOSSUM, Pers.

(Alluding to the tongue-like form of plants—Earth-tongues.)

Receptacle clavate, simple, confluent with the stem; hymenium surrounding the club.—*Cooke's British Fungi* ii. 662.

G. glabrum, Pers., *Cooke's Myc.* t. 3 f. 1. (*Clavaria ophioglossoides*, Bull. Champ. t. 372.)

Hab.: Queensland.—Grev. xi. 100.

CALLORIA, Fries.

C. decipiens, *Phillips*, Grev. xvi. 5.

Hab.: Brisbane, on string used for tying up plants.

PEZIZA, Dill.

SUBGENUS ACETABULA, *Cooke*.

P. cinereo-nigra, *Berk. et Br.*, Linn. Trans. i. 404 t. 46 f. 16-18.

SUBGENUS TARZETTA, *Cooke*.

P. alutæcolor, *Berk.*, *Cooke Myc.* t. 50 f. 198.

SUBGENUS TRICHOSCYPHA, *Cooke*.

P. tricholoma, *Mont.*, *Cooke Myc.* t. 51 f. 202.

Hab.: Daintree River.—Grev. xi. 100.

SUBGENUS COCHLEARIA, *Cooke*.

P. apophysata, *C. et. P.*

SUBGENUS DISCINA, *Fries*.

P. repanda, *Wahlen*, *Cooke Mic.* t. 62 f. 240.

SUBGENUS GEOSCYPHA, *Cooke*.

P. Thozetii, *Berk.*, Linn. Journ. xviii. 3881.

P. vinoso-brunnea, *Berk. et Br.*, Linn. Trans. (2nd series) v. i. 404 t. 45 f. 11-13.

SUBGENUS HUMARIA, *Fries*.

P. Hartmanni, *Phillips*, Grev. xvi. 5.

Hab.: Condamine River.

P. scatigena, *Berk. et Cooke*, *Cooke's Myc.* t. 18 f. 72.

P. granulata, *Bull.*, Champ. 258 t. 433 f. 3; *Fries Sys. Myc.* ii. 67. (*P. scabra*, Fl. Dan. t. 655 f. 2.)

SUBGENUS SARCOCYPHA, *Cooke*.

P. erinacea, *Schw.* Hedgehog-like.

Hab.: On *Cycas* stump at Bowen Park, and at the roots of trees, Indooroopilly.

SUBGENUS SCUTELLINIA, *Cooke*.

- P. scutellata**, *Linn.*, *Cooke Myc. t. 34 f. 131.*
P. confusa, *Cooke*, *Myc. t. 32 f. 124.*
P. coprogena, *Berk. et Br.*, *Linn. Trans. ii. 69.*

HELOTIUM, *Fries*.

- H. terrestre**, *Berk. et Br.*, *Linn. Trans. ii. 69.*
H. citrinum, *Fries*, *Berk. Outl. p. 372.* (*Peziza citrina*, *Fries.*)
 Hab.: Mount Mistake, on wood. Found also in Tasmania, Europe, and America.

CHLOROSPLENIUM, *Tul.*

- C. æruginosum**, *Tul.*, *Fung. Carp. iii. 187.*
 Hab.: Queensland.—*Grev. xi. 103.*

PHILLIPSIA, *Berk.*

A cup-shaped tough fungus; the hymenium always open.

- P. subpurpurea**, *Berk. et Br.*, *Linn. Trans. ii. 69.*
P. polyporoides, *Berk.*, *Linn. Journ. xviii. 388.*

TRIBE II.—BULGARIACEI, *Fries*.ASCOBOLUS, *Pers.*

- A. Baileyi**, *B. et Br.*, *Linn. Trans. ii. 69.*
A. australis, *Berk.*, *Linn. Journ. xviii. 389.* Very common on cowdung during 1887; at once known from its being so deeply sunk in the dung as to give the masses a perforated appearance.

TRIBE III.—PATELLARIACEI, *Fries*.CENANGIUM, *Fries*.

- C. lichenoideum**, *Berk. et Br.*, *Linn. Trans. i. 404 t. 45 f. 9.*

TYMPANIS, *Tode*.

(Referring to the veil resembling a timbrel.)

Receptacle margined, cyathiform, horny; hymenium at first veiled, then breaking up.—*Cooke's British Fungi ii. 722.*

- T. Toomansis**, *B. et Br.*

TRIBE IV.—STICTIEI, *Fries*.STICTIS, *Pers.*

- S. radiata**, *Pers.*, *Obs. ii. 73.*

TRIBE V.—HYSTERIACEI, *Fries.***LEMBOSIA**, *Lév.*

(Plant boat-like.)

Perithecia ovate or elongate, dehiscent in a longitudinal crack, innate in a fibrillous, branching, radiate underlayer. Asci subglobose or oblong-obovate, 6 to 8-spore; sporidia 2-celled, typically coloured. Epiphytical parasitical fungi, differing from *Aulographum* in the fibrillous underlayer and coloured spores.—Syll. Fung. ii. 742.

L. graphioides, *S. et B.*, Rev. Myc. No. 26, 1885, t. 52 f. 9.

HYSTEROGRAPHIUM, *Corda.*(From *hysterium* and *graphis*.)

Perithecia superficial or erumpent, oblong, corky-horny, firm, split in tumid lips. Asci clavate. Sporidia oblong, 3 or many-septate with longitudinal brownish or sooty septa. Paraphyses filiform.—Syll. Fung. ii. 776.

H. hiascens, *Rehm.* (*H. macrum*, *S. et B.*, Rev. Myc. 1885 t. 53 f. 11.)

RHYTIDHYSTERIUM, *Speg.*(From *rhytis*, wrinkled, and *hysterium*.)

Perithecia elongate, erumpent and dehiscent through longitudinal cracks, the lips of which are swollen and internally involute, obtuse, transversely densely and largely costate-sulcate. Asci 8-spore; sporidia at first hyaline and 1-septate, finally sooty and 3 or more septate. This genus embraces species which are very much allied to Lichens, but which have been included amongst Fungi on account of the entire absence of thallus.—Syll. Fung. ii. 759.

R. Scortechinii, *S. et B.*, Rev. Myc. No. 26, 1885, t. 53 f. 10.

TRYBLIDIELLA, *Sacc.*(From being closely allied to *Tryblidium*.)

Perithecia erumpent-superficial, subcoriaceous; lips tumid and somewhat widely gaping with paraphyses. Asci 8-spore; sporidia oblong, 2 or many-septate, typically 3-septate, finally sooty.—Syll. Fung. ii. 757.

T. rufula, *Spr.*

TRIBE VI.—TUBERACEI, *Fries.***MYLITTA**, *Fries.*

(After Mylitta, a heathen deity.)

A hard (when dry) subglobose underground fungus, often several inches in diameter, with a blackish outside; the inside at first soft, white-mealy, vesiculososo-floccose substance which traverses the central

yellowish nucleus, dividing it into sinuous veins, which consist of a dense mass of extremely minute flexuose filaments, portions of which are swollen and distorted. When dry the veins are very hard and horny and transparent.—From Ann. Nat. Hist. iii. 326.

M. australis, *Berk.*, Ann. Nat. Hist. iii. 325.

Hab.: Main Range near Toowoomba.—*C. H. Hartmann.*

SUBORDER VI.—PYRENOAMYCETES.

TRIBE I.—HYPOCREACEÆ, *De Not.*

HYPOCREA, *Fries.*

H. membranaceæ, *Berk. et Br.*, Linn. Trans. ii. 70.

H. discoidea, *B. et Br.*

GIBBERELLA, *Sacc.*, Mich. i. 43 and 317.

(From somewhat resembling *Gibbera*.)

Perithecia caespitose-stromatic or becoming distinct. Asci 8-spore, with spurious or no paraphyses; sporidia from ovoid to fusiform, 3 or more septate, subhyaline. The conidioid state like in *Fusarium* and *Selenosporium*. The species of this genus resemble each other so much that they might be placed as forms of one species, but vary much in habit, sometimes being caespitose with a stroma or sometimes dispersed without stroma.—Syll. Fung. ii. 552.

G. (Lisiella) passifloræ, *Cooke et Mass.*, Grev. xvi. 5.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

HYPOMYCES, *Tul.*

H. chrysospermus, *Tul.* (The ascigerous or perfect condition, of which *Sepedonium chrysospermum* is the conidia.)

H. aurantius, *Tul.*

SPHEROSTILBE, *Tul.*

(From *Sphaeria*, and *stilbum*, resemblance.)

Perithecia globose, soft, light-coloured, arising in a group of themselves or fixed on the base of a conidia bearing fungillus (c.f. *Stilbum*, *Atractus*, *Microcera*). Asci elongate, 8-spore; sporidia oblong or ovoid, 1-septate, hyaline. Paraphyses none or spurious.—Syll. Fung. ii. 512.

S. cinnabarina, *Mont.*, Tul. Carp. iii. 103.

S. dubia, *Berk.*, Linn. Journ. xviii. 389.

NECTRIA, *Fries.*

N. coccinea, *Fries*, Summa. 388.

TRIBE II.—XYLARIACEÆ.

XYLARIA, Schr.

- X. polymorpha**, *Grev.*, Fl. ed. 355.
X. rhytidophlæa, *Mont.*, Syll. No. 687.
X. aphrodisiaca, *W. et Currey*, Fung. Ang. 280.
X. hypoxylon, *Grev.* Fl. Edin. 355.
X. elastica, *Cooke*, *Grev.* xvi. 4.
 Hab.: On rotten wood, Trinity Bay.
X. australis, *Cooke*, *Grev.* xi. 84.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. involuta, *Klot.* in *Linnæa*. (*X. tabacina*, *Kickx.*)
 Hab.: Daintree River.—*Grev.* xi. 146.
X. grammica, *Mont.*, Syll. No. 680.
 Hab.: Endeavour and Daintree Rivers.—*Grev.* xi. 146.
X. cerebriformis, *Cooke*, *Grev.* xi. 86.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. allantoidea, *Berk.*, *Hook. Journ.* 1839, 397.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. lobata, *Cooke*, *Grev.* xi. 86.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. tuberiformis, *Berk.*, *Flora New Zeal.* ii. 204.
 Hab.: Bellenden-Ker Range.—*Grev.* xi. 146.
X. cretacea, *B. et Br.* (*Hypoxylon cretaceum*, *B. et Br.*, *Linn. Trans.* i. 405 t. 45 f. 2-5.)
 Hab.: On old logs, Trinity Bay Range.
X. (Xyloglossa) cinnabarina, *Cooke et Mass.*, *Grev.* xv. 101.
 Hab.: On stumps, Daintree River.
X. (Xyloglossa) ovispora, *Cooke et Mass.*, *Grev.* xv. 101.
 Hab.: On stumps, Daintree River.
X. gigas, *Cooke*.

PORONIA, Fries.

- P. œdipus**, *Mont.*, *Ann. Sci. Nat.* 1855.
P. pileiformis, *Berk.*, *Hook. Journ.* 1842 t. 7 f. 6. (*Xylaria pileiformis*, *Berk.*, *Linn. Trans.* i. 405.)

RHOPALOPSIS, *Cooke*, *Grev.* xi. 93.

Densely cæspitose, capituli abbreviated, rather simply or shortly stipitate or seated on short ramuli of an intricate stroma.—*Cooke, l.c.*

- R. Angolense**, *Cooke*, *Well. et Curr. Fung. Ang.* 282. (*Hypoxylon Angolense*, *Linn. Trans.* i. 405.)
R. cetrarioides, *Cooke*, *Well. et Curr. Fung. Ang.* 1228. (*Hypoxylon cetrarioides*, *Linn. Trans.* i. 405.)

HYPOXYLON, Fries.

H. flavo-fuscum, *B. et Br.***H. serpens**, *Fries*, Syst. Myc. ii. 341.**H. rutilum**, *Tul.*, Carp. Fung. ii. 238.**H. rubricosum**, *Fries et Mont.***H. oodes**, *B. et C.* Var.Hab. : On wood, Burpengary.—*Dr. Bancroft.* The normal form was found on dead wood in Ceylon.**H. luteum**, *Fries*, Berk. Ann. Nat. Hist.**H. placentæforme**, *Berk. et Curt.*, Cuban Fungi No. 815.Hab. : Endeavour River.—*Grev.* xi. 147.**H. hæmatites**, *Lév.*, *Grev.* xi. 133.Hab. : Endeavour River.—*Grev.* xi. 147.

NUMMULARIA, Tul.

(So named from the supposed resemblance of the plants to a coin.)

Stroma discoid. Perithecia immersed, in separate cells. Sporidia ovate or ovato-globose, straight, simple, dark-coloured, excluded in tendrils.—*Cooke's* British Fungi ii. 798.**N. Baileyi**, *Cooke*, *Grev.* xii. 6. (*Hypoxylon Baileyi*, *B. et Br.*)

Hab. : On wood, Brisbane.

TRIBE III.—DOTHIDIEI, *Fries.*MELOGRAMMA, *Fries.***M. rubricosa**, *Berk.*, *Fries* Elench. ii. 63.DOTHIDEA, *Fries.***D. Fimbristylis**, *B. et Br.*Hab. : On *Fimbristylis*, at Northcote; collected by *R. C. Burton.*RHYTISMA, *Fries.***R. hypoxanthum**, *Berk. et Br.*, Linn. Trans. ii. 71.**R. filicinum**, *Berk. et Br.*, Ceylon Fungi Linn. Journ. xii. 130.

PHYLLACHORA, Nits.

(So named from its causing leaves to appear ulcerated.)

Stroma hidden, innate or prominent on the surface, effuse or tuberculiform, distinct or confluent, tender without cells, tuberculose or punctulate, black, cells minute, nestling in the stroma, at first somewhat spermatiferous. Asci cylindrical, 8-spored; spores ellipsoid or ovoid, simple, hyaline or faint yellow. Paraphyses filiform.—*Syll.* Fung. ii. 594.

P. Alpinia, *Sacc. et Berl.*, Rev. Myc. No. 26, 1885.

P. rhytismoides, *Corda.*; *Sacc.*

DOTHIDELLA, Speg.

(Named from its near ally *Dothidea*.)

Stromata effuse or disciform; subplana dark, cells immersed. Asci with 8 spores. Sporidia ovoid or oblong, 1-septate, hyaline.—Syll. Fung. ii. 627.

D. apiculata, *Sacc. et Berl.*, Rev. Myc. No. 26, 1885, t. 52 f. 8.

TRIBE IV.—VALSLÆI.

DIATRYPE, Fries.

D. chlorosaca, *B. et Br.*; *Sacc.*, Syk. i. 195, Rev. Myc. t. 52 f. 2.

D. stigma, *Hoffm.*

VALSA, Fries.

V. echidna, *Cooke*, Grev. ix. 4.

TRIBE V.—SPHÆRIÆI.

CUCURBITARIA, Grev.

Cæspitose, erumpent; perithecia globose, depressed, or minutely papillate; sporidia plurilocular and cellular, or 2 or 4-celled and hyaline.—*Cooke's British Fungi* ii. 840.

C. polyscia, *B. et Br.*

DALDINIA, De Not.

(After Abb. Daldini.)

Stroma superficial, subsphæroid; cortex carbonaceous, blackish, inside fibrous, marked in concentric coloured zones. Asci cylindrical, pedicellate, 8-spored. Spores ovoid or oblong, brown. Perithecia quite immersed. Ostioles umbilical.—Syll. Fung. iii. 393.

D. concentrica, *Bolt.*; *Ces. et De Not.*

D. c., var. **Eschscholzii**, *Ehrenb.*

D. c., var. **minor**, *B. et Br.*, Linn. Trans. ii. 70.

ANTHOSTOMA, Nits.

(Flower-mouthed.)

Stroma effused or limited, somewhat valsæoid or wart-formed, corky or woody. Perithecia membranous, never really carbonaceous; stroma immersed. Asci cylindrical, 8-spored, with paraphyses. Sporidia ellipsoid, oblong, sooty.—Syll. i. 293.

A. capnodes, *Berk.*; *Sacc.*, Rev. Myc. t. 52 f. 4.

A. microplacum, *B. et C.*; *Sacc.*, Syll. i. 298, Rev. Myc. t. 52 f. 3.

PHYSALOSPORA, Niessl. Notiz.

(So named from the bladdery spores.)

Perithecia globular, covered, membranous or coriaceo-membranous, black; the small ostiole papillose; erumpent. Asci terete-clavate, thickly truncated, 8-spored, with paraphyses. Spores ovoid or oblong, continuous, hyaline or nearly so.—Syll. Fung. i. 434.

P. gregaria, *Sacc.*

SCORTECHINIA, *Sacc.*

S. acanthostroma, *Mont. Sacc. et Berl.*, *Rev. Myc.* t. 52 f. 6 = *SPHERIA ACANTHOSTROMA*, *Mont.*; *TRICHOSPHERIA ACANTHOSTROMA*, *Mont. Sacc.*, *Syll.* i. 454.

SPHERIA, *Hill.*

S. polyscia, *Berk. et Br.*, *Linn. Trans.* ii. 70 t. 15 f. 19-21 = *CUCURBITARIA POLYSCIA*.

S. Litseæ, *B. et Br.*

S. macrozamiæ, *B. et Br.*

S. sacchari, *B. et Br.*

SPHERELLA, *De Not.*

S. rubiginosa, *Cooke*, *Grev.* xiv. 90.

Hab.: On dead leaves of *Pittosporum rubiginosum*, Johnstone River.—*Grev.*, l.c.

S. destructiva, *Berk. et Br.*, *Linn. Trans.* ii. 71 t. 15 f. 22-24.

S. smilacicola, *Schw.*; *Cooke*.

S. dammaræ, *B. et Br.*

CAPNODIUM, *Mont.*

C. elongatum, *B. et Desm.*, *Journ. Hort. Soc.* iv. 251 f. 5.

MICROPELTIS, *Mont.*

(Small shields.)

Perithecium dimidiate-scutate, orbiculate, flattened convex, with sunk central pore. Asci clavate, erect. Sporidia fusiform, 3 or many septate, hyaline.—*Syll. Fung.* ii. 669.

M. applanata, *Mont.*

M. depauperata, *Sacc. et Berl.*

GIBELLIA, *Sacc.*, *Rev. Myc.*

G. dothideoides, *Sacc. et Berl.*, *Rev. Myc.* 1885 t. 52 f. 7.

DIDYMELLA, Sacc.

Sporidia 2-celled. Perithecia covering membranous, globose-depressed, shortly papillose, usually stalked. Asci 4 to 8-spore, and paraphyses. Sporidia ovoid or ellipsoid, or suboblong, uniseptate, hyaline.

D. Bryoniae, *Tuck. ; Rehm.*

DIDYMOSPHERIA, Tuckel Symb. Myc. p. 140; Syll. Fung. i. 701.
(Twin sphaeria.)

Perithecium veiled with the epiderm, unchanged or sometimes blackened, submembranous, minute papillose. Asci and paraphyses. Sporidia in ascus 4 to 8, ovoid-oblong, 1-septate.—Syll. Fung. i. 701.

D. conoidella, *Sacc. et Berl., Rev. Myc. 1884.*

TRIBE VI.—PERISPORIÆ.

MELIOLA, Fries.

M. amphitricha, *Fries, Elen. ii. 109.*

M. Tetraceræ, *F. v. M. et Thuemen, Sym. Myc. Austr. ii. No. 92.*

M. mollis, *Berk. et Br., Linn. Journ. xiv. 136, plate x. fig. 53.*

M. musæ, *Mont., Ann. Sci. Nat. 1846, 265.*

M. corallina, *Mont., Fl. Chil. vii. 472.*

M. loganiensis, *Sacc. et Berl.*

M. densa, *Cooke.*

Hab.: Queensland.—*F. v. M.*

M. Eucalypti, *Cooke.*

Hab.: Queensland.—*F. v. M.*

M. octospora, *Cooke.*

Hab.: On *Tristania conferta* leaves, Brisbane River.

ASTERINA, Lév.

A. Baileyi, *Berk. et Br., Linn. Trans. ii. 71 t. 15 f. 25-28.*

A. pelliculosa, *Berk., Antart. Crypt. 137.*

ANTENNARIA, Link.

A. semiovata, *Berk., Ann. Nat. Hist. ii. xiii. 468.*

A. Robinsonii, *Berk. et M., Mont. Syll. Crypt. No. 1066 et in Berk. Not. of Brazil Fung., Lond. Journ. of Bot. ii. t. 23 f. 2. (Cladosporium Fumago, var. elongatum, Mont. Fl. J. Fern.)*

Hab.: Brisbane Gardens, infesting *Baccharis halimifolia*. First found on ferns at the island of Juan Fernandez.

SPHEROTHECA, Lév.

S. pannosa, Lév., Ann. Sci. Nat. 1851 xv. 138 t. 6 f. 8. (Rose Blight.)

CHÆTOMIUM, Kunze.

(Name referring to the fungus being covered by bristles.)

Perithecium thin, brittle, mouthless; sporangia linear, containing dark lemon-shaped sporidia.—*Cooke's British Fungi* ii. 652.

C. cymatotrichum, Cooke, Grev. xii. 21. (Name referring to the hairs being wavy.)

Hab.: On leaves of *Solanum Dallachyi*, Johnstone River.

EUROTIIUM, Link.

E. herbariorum, Link., Sp. i. 70. (*Farinaria sulphurea*, Sow. t. 379 f. 3.) Herbarium Mould. An ascigerous condition of *Aspergillus glauca*.

PYRENOAMYCETES INCOMPLETÆ.

TRIBE I.—SPHÆRONEMEI.

CHÆTOPHOMA, Cooke, Grev. vi. 25.

(Bristle-Phoma.)

Perithecia membranaceous, minute, superficial, globose, flask-shaped, elliptical or cylindrical; usually sealed upon or amongst an intricate byssus of ramifying threads, often met with in company with *Cladosporium*.—*Cooke, l.c.*

C. eutricha, S. et B., Rev. Myc. No. 26, 1885, t. 53 f. 13.

CYTOSPORA, Ehrénb.

C. verrucula, Sacc. et Berl., Rev. Myc. No. 26, 1885, t. 53 f. 14.

Hab.: On bark, Logan River.

PHOMA, Fries.

P. purpurea, Cooke et Mass., Grev. xv. 97.

Hab.: On Eucalypt leaves, Brisbane River.

P. rosarum, Durieu et Mont.

PHLYCTENA, Desm.

Minute epiphytic fungi. Perithecium spurious, formed of the blackened cuticle of the plant, convex, opening by a pore, containing a gelatinous nucleus. Spores curved, elongate, spindle-shaped, upon very short sporophores.—*Berk. in New Zeal. Flora.*

P. Passifloræ, Cooke et Mass., Grev. xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

GAMOSPORA, Sacc. et Berl., Rev. Myc. No. 26, 1885.

G. eriosporoides, Sacc. et Berl., Rev. Myc. No. 26, 1885, t. 53 f. 15.

ACTINOTHECIUM, Cesati in Hedwigia i.

(Radiate form of perithecia.)

Perithecia at first nearly orbicular or angular scutate, dehiscent in rays, often divided into 5 to 7 oblong or lanceolate star-like rays; rays with a longitudinal crack, of a parenchymatous texture. Sporules oblong, continuous, hyaline.—Syll. Fung. iii. 639.

A. Scortechinii, *Sacc. et Berl.* in Syll. Fung. iii. 639; *Rev. Myc.* t. 53 f. 17.

MELASMIA, Lév.

(Named from its usual black colour.)

Perithecium membranaceous, dehiscent above, rather swollen, at length depressed and rugose, growing in a thin, spot-like, effused receptacle; spores simple.—*Cooke's British Fungi*.

M. Eucalypti, *C. et M.*, *Grev.* xvi.

Hab.: On Eucalypts, Nerang Creek.

MELOPHIA, Sacc.

(Black Snake—form and colour of spores.)

Perithecium flattened, convex, dimidiate, somewhat soft, black or glaucous-brown at length, corrugated, astomatose or irregularly dehiscent, spori elongate-serpentine, continuous, hyaline.—Syll. Fung. iii. 658.

M. Woodsiana, *Sacc. et Berl.* in Syll. Fung. iii. s. 659; *Rev. Myc.* No. 26, 1885, t. 53 f. 1.

PHYLLOSTICTA, Pers.

P. Cordylinea, *S. et B.*, *Rev. Myc.* No. 26, 1885.

P. neurospilea, *S. et B.*, *Rev. Myc.* No. 26, 1885.

P. palmicola, *Cooke*, *Grev.* xiv. 89.

Hab.: On Palm leaves, Daintree.—*Grev.* xiv. 89.

SPHEROPSIS, Lév.

S. Tricorynes, *B. et Br.*, *Linn. Trans.* ii. 68.

S. Rosarum, *C. et Ellis*.

DIPLODIA, Fr.

(Twin spores.)

Perithecia subcutaneous-erumpent, somewhat carbonaceous; spores uniseptate, escaping by a perforation at the apex.—*Cooke's British Fungi* i. 430.

D. lichenopsis, *Cooke et Mass.*, *Grev.* xvi. 2.

Hab.: Brisbane River, on leaves of *Acacia complanata*.

PESTALOZZIA, De Not.

(After Dr. F. Pestalozza.)

P. funerea, *Desm.***P. versicolor**, *Speg.***P. uvicola**, *Spg.*Hab.: On *Vitis* leaves, Toowoomba.—*H. Tryon.*This fungus attacks the ripe grapes in North Italy.—*Syll. Fung.* iii. 789.**GLÆOSPORIUM**, Mont.**G. cucurbitarum**, *B. et Br.*, Linn. Trans. 268.**G. intermedium**, *Sacc.***G. Denisonii**, *Sacc. et Berl.*, de la Rev. Myc. No. 21, 1885.**G. citricolum**, *Cooke et Mass.*, Grev. xvi. 3.Hab.: Toowoomba, on leaves of Orange.—*H. Tryon.***G. fructigenum**, *Berk.*Hab.: On Pear fruit, Toowoomba.—*H. Tryon.***C. Musarum**, *Cooke et Mass.*, Grev. xvi. 3.

Hab.: On Banana fruit bought in Brisbane. The fruit affected with this fungus were dry and for the most part useless.

G. glaucum, *Cooke et Mass.*

Hab.: Forming large bluish spots on living foliage, Nerang Creek.

ASCOCHYTA, Lib.(From *ascos*, a bag, and *cheo*, to pour out—the spores being poured out from the perithecium.)

Perithecia sitting mostly in the colourless parts of leaves or branches, perforated by a central pore, globose or lenticular. Sporules ovoid or oblong, 1-septate, hyaline or greenish. Some which have been described by some authors as *Ascochyta*, with regard to the fructification, belong rather to *Septaria Phyllosticta*, and are not included in the genus by Saccardo.—*Syll. Fung.* iii. 384.

A. apiospora, *Cooke et Mass.*, Grev. xv. 98.Hab.: Johnstone River, on leaves of a Myrtle; and on leaves of *Backhousia myrtifolia*, Taylor's Range.**A. brunnea**, *Cooke et Mass.*, Grev. xv. 90.Hab.: Brisbane River, on leaves of *Tristania conferta*.**ROBILLARDA**, Sacc., Mich. ii. 8.

(After M. L. A. Robillard.)

Perithecia globose-depressed, with the epiderm veiled and finally perforated, membranous. Sporulæ fusoid, 1-septate, greenish hyaline, bearing on the apex long ternate bristles. Basidia obsolete. From the genus *Pestalozzia* this genus differs especially by having perithecia.

R. sessilis, *Sacc.*, Mich. ii. 8. (*Pestalozzia sessilis*, *Sacc.*, M.V. No. 975, Mich. i. 261.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. In Europe this fungus is found on the leaves of the common Bramble.

DIPLODINA, West.

(Resembling somewhat *Diplodia*.)

Perithecia subcutaneous or erumpent, globose-papillate, black, glabrescent. Spores ellipsoid-oblong, 1-septate, hyaline.—*Syll. Fung.* iii. 411.

D. Dendroii, *Cooke et Mass.*, *Grev.* xvi. 3.

Hab.: On *Dendrobium speciosum*, v. *Hillii*, leaves, growing at Bowen Park, Brisbane.

SUBORDER VII.—HYPHOMYCETES.

TRIBE I.—ISARIACEI, *Fries*.

CERATIUM, *Albert et Schw.*

C. hydnoides, *A. et S.*, *Consp.* t. 2 f. 7.

C. arbuscula, *Berk. et Br.*, *Linn. Journ.* xiv. 97.

TRIBE II.—STILBACEI, *Link*.

STILBUM, *Tode*.

S. cinnabarinum, *Mont.*, *Fl. Cub.* 308 t. ii. f. 3.

S. aurantiacum, *Berk.*

FUSARIUM, *Link*.

F. (Fusisporum) longisporum, *Cooke et Mass.*, *Grev.* xvi. 4.
A pinkish-white floccose fungus.

Hab.: Brisbane, on dead stems of *Argyrea tilifolia*.

F. decipiens, *Cooke et Mass.*

Hab.: Brisbane River, on *Frens aspera*, the native Rough or Purple Fig.

F. rubicolor, *Berk. et Br.*, *Linn. Trans.* ii. 68 t. 15 f. 10-11.

MYROTHECIUM, *Tode*.

(Fragrant capsules.)

Receptacle at length marginate; spores diffuent, oblong, forming a flat or slightly convex dark-green stratum.—*Cooke's British Fungi* ii. 559.

M. roridum, *Tode*, t. 5 f. 38, *Grev.* t. 140; *Cooke, l.c.* *Dewy Myrothecium*.

Hab.: Brisbane, on old twine used for tying up plants. Mr. Berkeley says that this fungus in America attacks the leaves and inflorescence of *Syringa*, and the glumes of *Eleusine indica*.

EPICOCUM, Link.

(Name referring to the spores studding the outside of the receptacle.)

Receptacle sub-globose, vesicular, studded with large somewhat stipitate spores.—*Cooke's British Fungi*.

E. scabrum, *Corda*.

Hab.: On leaves and stems of Potatoes, Cleveland.—*P. Fletcher*.

This fungus is in Europe and America found on the dead stems of grass and many herbaceous plants. The Rev. Mr. Berkeley says it also attacks the roots of *Nyssa*, a genus of Cornaceous trees.

ILLOSPORIUM, Mart.**I. flavellum**, *Berk. et Br.*, Linn. Trans. ii. 68.**I. luteolum**, *Sacc*.

Hab.: On bark of *Tristania conferta*, Helidon Falls.

MICROCERA, Desm.

Veil persistent, membranaceo-floccose, then splitting above into laciniae; receptacle clavate, fleshy, composed of nearly simple sporeiferous threads; spores fusiform, arcuate.—*Cooke's British Fungi* ii. 556.

M. coccophila, *Desm.*, Ann. Sci. Nat. 1848 x. 359.**M. rectispora**, *Cooke et Mass.*, Grev. xvi. 4.

Hab.: On scale insect *Chionaspis citri*, infesting Lemon-trees, Toowoomba.—*H. Tryon*.

TUBERCULARIA, Tode.

Receptacle verrucæform, innate, clothed with a dense stratum of gelatinous minute spores.—*Cooke's British Fungi* ii. 557.

T. leguminum, *Cooke et Mass.*

Hab.: Mount Perry, on pods of *Cassia*.—*J. Keys*.

TRIBE III.—MUCEDINEI, *Fries*.**ASPERGILLUS**, Link.**A. glaucus**, *Link*, Spec. i. 67.**A. mucoroideus**, *Cooke*, Grev. xii. 9.

Hab.: On decaying leaves, Johnstone River.—Grev. xii. 9.

SPOROTRICHUM, Link.**S. densum**, *Link*.**NEMATOGONUM**, Desm.

Threads clavate at the apices, and bearing necklaces of spores on distinct scattered spicules.—*Cooke's British Fungi* ii. 589.

N. aureum, *Berk.*, Eng. Fl. v. 340. (*Aspergillus aureus*, *Berk.*)

Hab.: Queensland.—Grev. xii. 10.

THOZETIA, Berk. et F. v. M.

(After the late Mons. A. Thozet.)

Sporodochium minute, globose; spores hyaline, oblong, terminated at each end by a single bristle.

T. nivea, *B. et F. v. M.*, Linn. Journ. xviii. 388.

OIDIUM, Link.

O. Tuckeri, *Berk.*, Moniteur Belge 1850 ix. 2383.

O. erysiphoides, *Fries*, Syst. Myc. iii. 432.

O. leucoconium, *Desm.*, Ann. Sci. Nat. 1829, 102.

Hab.: Brisbane; very common on Pumpkins, &c.

OOSPORA.

(So named from the egg-formed spores.)

Cæspitose, effuse or pulvinate. Conidia catenulate, globose or ovoid, hyaline or coloured.

O. aphides, *Cooke et Mass.*

Hab.: Ipswich, on Pumpkin leaves.

TRIBE IV.—DEMATIEI, *Fries*.**CLADOSPORIUM**, Link.

C. herbarum, *Pers.*; *Link*, Obs. ii. 37.

C. h., var. **epixylinum**, *Corda*.

Hab.: On wood, Mount Moon.

C. papyricola, *Berk. et Br.*, Linn. Trans. ii. 68.

C. stenosporum, *Berk. et Curt.*, Nor. Amer. Fungi No. 650.

C. oligocarpum, *Corda*.

CERCOSPORA, *Fries*.

(Spores worm-like. *Virgasporium*, *Cooke*; *Cladosporium et Helminthosporium*, *Auct.*, ex parte.)

Hyphæ somewhat soft, simple or branched, brown, usually forming spots on live leaves. Conidia vermicular, brown, rarely subhyaline.—Syll. Fung. iv. 436.

C. solanacea, *S. et Berl.*, Rev. Myc. No. 26, 1886.

FUMAGO, *Pers.*(From *fumus*, smoke.)

Hyphæ decumbent, intricate, often confluent, in wall-like buds frequently forming a black loose crust. Fertile hyphæ when present erect, ramose. Conidia ovoid, oblong, 1 or 2-septate, as a rule chain-like. The conidia state like in *Capnodium*.—Syll. Fung. iv. 547.

F. vagans, *Pers.*, *Myc. Eur.* i. 9; *Tul.*, *Carp.* ii. 280 t. 34 f. 2 and 3; *Syll. Fung.* iv. 547. (*Cladosporium Fumago*, *Link*; *Syncollesia foliorum*, *Ag.*; and *Torula Fumago*, *Chev.*, according to *Saccardo*.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. This fungus infests a number of plants in Europe.

HARPOGRAPHIUM, *Sacc.*, *Mich.* ii. 33.

(Name derived from *harpe* and *graphium*; sickle-formed *graphium*.)

Stroma stipitate, on the apex capitate, equal, scaly on the upper side, provided with pale loose sporophores. Conidia elongated or falcate, continuous, hyaline.—*Syll. Fung.* iv. 619.

H. quaternarium, *Cooke et Mass.*, *Grev.* xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

ISARIOPSIS, *Fries.*

(So named from resembling an *Isaria*.)

Slender, brownish or becoming pale, terete, consisting of loose hyphæ. Conidia arranged in a panicle or loose head. Some species come near to *Hyalostilbea* and then to *Arthrosporium*, which differs by being of a more robust habit.—*Syll. Fung.* iv. 631.

I. clavispora, *Berk. et Cooke*; *Sacc.* (*Graphium clavisporum*, *B. et C.*, *Nor. Amer. Fungi*.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. The leaves collected by Mr. Tryon seem to belong to an American variety, and in Carolina this fungus is found on *Vitis Labrusca*.

HELMINTHOSPORIUM, *Pers.*

H. inconspicuum, *Cooke et Ell.*, *Grev.* t. 99.

Hab.: On Orange trees, Toowoomba.—*H. Tryon*. Found on maize in America.

H. Ravenelii, *Curtis* in *Sill. Journ.* 1848, 352.

As in Queensland, this fungus in North America attacks *Sporobolus indicus*, and from this the grass is commonly known there as black-seed.—*Rev. M. J. Berkeley*, in *Grevillea* iii. 102.

H. puccinioides, *S. et Berl.*, *Rev. Myc.* No. 26, 1885, t. 53 f. 19.

H. macrocarpum, *Grev.*

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

In America this black fungus infests trees of Magnolia, Maple, Chestnut, &c.

BRACHYSPORIUM, *Sacc.*, *Mich.* ii. 28.

(Alluding to the spores being short.)

Hyphæ rigid, subsimplex, brown, usually on wood. Conidia ovoid or pyriform, 2 or few septate, brown. *Helminthosporium* of some authors, but differs from that genus in the shortness of the conidia.—*Syll. Fung.* iv. 423.

B. oligocarpum, *Corda.*; *Sacc.* (*Helminthosporium oligocarpum*, *Corda.*, *Icon. Fung.* i. 13 t. iii. f. 182; *Sacc.*)

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

ACTINOMMA, *Sacc.*

(Plants having a rayed appearance.)

Sporodochia superficial, flattened, black, radiate-lobed, stelliform; hypothallus setose, insidiously sooty. Conidia from out of the hypothallus, divided into branched chains, globular, hyaline, or brownish.—*Syll. Fung.* iv. 753.

A. Gastonis, *Sacc.*, *Misc. Myc.* i. 28.

TRIBE V.—TRICHODERMACEI, *Fries.*

TRICHODERMA, *Pers.*

T. viride, *Pers.*, *Syn. Fung.* 230. (The conidia of *Hypocrea rufa*.)

SEPEDONIUM, *Link.*

(So named from the plants growing on putrid substances.)

Spores large, simple and globose, or appendiculate.—*Cooke's British Fungi* ii. 619.

S. chrysospermum, *Link.*, *Sp.* i. 29. (Conidia of *Hypomyces chrysospermus*.)

TRIBE VI.—TORULACEI, *Fries.*

TORULA, *Link.*

T. herbarum, *Link.*, *Obs.* i. 19.

HORMISCIUM, *Kunze.*

(Necklace-like conidia.)

Hyphæ short or obsolete or scarcely distinct from the conidia. Conidia chain-like, not easily separated, cube-like or globose, brown.—*Syll. Fung.* iv. 264.

H. stilbosporum, *Corda.*; *Sacc.* (*Torula stilbospora*, *Corda* in *Sturn DC. Fl.* t. 46, et *Icon. Fung.* v. 50 f. 13.)

Hab.: Brisbane, on dead sticks of *Duranta*; found on Poplars and Willows in Europe.

PERICONIA, *Tode.*

(From the Greek for "around," and "powder.")

Stem composed of fasciculate compacted threads; head globose; spores fixed to the free apices of the threads.—*Cooke's British Fungi* ii. 565.

P. nigrella, *Berk.*; *Sacc.* (*Sporocybe nigrella*, *Berk. Ann. Nat. Hist.* No. 226 t. 13 f. 16.)

Hab.: Brisbane, on *Andropogon*; found on Geranium leaves in England.

BISPORA, Corda.**B. monilioides**, Corda, Icon i. 9 t. 2 f. 143.**SCOLECOTRICHUM**, Kunze et Schm.

(So named from the plant resembling a hairy worm.)

Hyphæ short, subfasciculate, olivaceous; conidia oblong or ovate at the sides and extremities, differing from *Fusicladium* only by the conidia coming out on the sides.—Syll. Fung. iv. 348.

S. atriellum, Cooke et Mass., Grev. xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*. A very curious fungus, resembling a scale insect clothed with short rigid white hairs.

BACTRIDIDIUM, Kunze.**B. flavum**, Kunze, Myc. Hefte. t. i. f. 2.

SUBORDER VIII.—PHYSOMYCETES.

TRIBE I.—MUCORINI, Fries.

MUCOR, Mich.

Threads free; sporangia at length bursting, but not dependent.—*Berk.*, Outl. 407; *Cooke*, British Fungi.

M. phycomyces, *Berk.* Shining or Seaweed Fungus. (*Phycomyces nitens*, *Bisch.*)

Hab.: On old boards, Brisbane.—*H. Simmonds*.

CIRCINELLA, Tieg. et Mon.**C. umbellata**, *Tieg. et Monnier*, Ann. Sci. Nat. 1873 t. 21 f. 18-23. (*Helicostylum Moreliæ*, *B. et Br.*)

MYCELIA.

XYLOSTROMA, Bot.**X. giganteum**, *Tode*, Meckl. i. p. 36 pl. vi.; *Sow.*, Fungi pl. 358.**RHIZOMORPHA**, Ach.**R. Harrimannii**.**R. corynephora**, *Kunze* in *Weig. Exs.*; *Berk.* in *Hook. Journ.* viii. 277.

NOTE.—Since the publication of the first supplement to this work the sad news has been received from Europe of the rather sudden death of the celebrated mycologist C. E. Broome, who for many years past has kindly determined the Queensland Fungi for the writer. His death will be a great loss to all studying this rather difficult branch of botanical knowledge, there being so few scientists of note in this branch of botany. Dr. M. C. Cooke, an English mycologist of equal eminence, has promised to carry on the determination of Queensland species, and complete any work left unfinished at the death of Mr. Broome.

Order ALGÆ.

TRIBE MELANOSPERMEÆ OR FUCOIDEÆ.

FUCACEÆ.

SARGASSUM, Ag.

TRIBE GLANDULARIA, *J. Ag.***S. Bacularia**, *Ag.*Hab. : Queensland.—*F. v. M.***S. lophocarpum**, *J. Ag.*Hab. : Queensland.—*F. v. M.*

SUBORDER RHODOSPERMEÆ OR FLORIDEÆ.

RHODOMELACEÆ.

POLYSIPHONIA, Grev.

SECTION DICHOLOME.

P. ferulacea, *Suhr.*, *J. Ag. Sp. ii. 980.*Hab. : Queensland.—*F. v. M.*

RHODYMENIACEÆ.

ERYTHROCLONIUM, Sonder.

(From the Greek, meaning "Red Branch.")

Stem terete, its branches constricted as if jointed, composed of an articulated axial filament, and three strata—the medullary stratum composed of longitudinal, interwoven filaments; the intermediate of several rows of roundish coloured cellules; the cortical of very minute subseriated cellules. Fructification : 1, conceptacles sessile, depressed, umbilicate, opening by a terminal pore, containing within a thick pericarp moniliform strings of spores, radiating from a free central placenta; 2, zonate tetraspores, dispersed through the cortical cells.—*Harvey's Phycologia Australica.*

E. Sonderi, *Harv.*, *Phyc. Austr. 86.*Hab. : Queensland.—*F. v. M.*

SUBORDER CHLOROSPERMEÆ.

SIPHONACEÆ.

CAULERPA, Lamx.

C. fontinaloides, *J. Ag.*Hab. : Queensland.—*F. v. M.*

HALIMEDA, Lamx.

H. papyracea, *J. Ag.*Hab. : Queensland.—*F. v. M.*

VALONIACEÆ.

PENICILLUS, Lamx.

(From *penicillus*, a painter's brush—resemblance of plants.)

Root fibrous, much branched, matted. Frond stipitate, dendroid. Stipes erect, terete, incrusted, composed of numerous unicellular, longitudinal, cylindrical, branching, interwoven filaments, and crowned with a dense pencil of confervoid, articulated, free or cohering ramelli. Cells covered with a porous calcareous pellicle.—*Harvey's Phycologia Australica*.

P. Arbuscula, *Mont.*, Harv. Phyc. Austr. 22.

Hab.: Queensland.—*F. v. M.*

VALONIA, Agardh.

This consists of large cells or sacs, which are simple or branched, and repeatedly constricted.—*Berk.* in Intro. to Crypt. Bot. 135.

V. confervoides, *Harv.*

Hab.: Queensland.—*F. v. M.*

CONFERVACEÆ.

CLADOPHORA, Kuetz.

C. subsimplex, *Kuetz.*

Hab.: Queensland.—*F. v. M.*

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