

# Contributions to the Queensland Flora.

## No. 2.\*

By C. T. WHITE, F.L.S., Government Botanist, and  
W. D. FRANCIS, Assistant Government Botanist.

(Text-figures 1-9.)

(Read before the Royal Society of Queensland, 24th July, 1923.)

### ORDER CRUCIFERÆ.

**Cakile maritima** Scop. Collected on the ocean beach, Stradbroke Island, Moreton Bay, by C. T. White. This herb, which is found in Europe, South Africa, and South America, is also common on the sea beaches of New South Wales. This is the first record of its occurrence in this State.

### ORDER PITTOSPORACEÆ.

**Hymenosporum flavum** F.v.M. Some specimens of this tree were recently received from Ravenshoe collected by Mr. J. B. Manuell and from the parish of Barron collected by Mr. D. Fraser, both localities on the Atherton tableland, North Queensland. The specimens differ from the more commonly known form in the under surface of the leaves, the peduncles and pedicels being more hairy. The fruits also are covered with a loose, floccose tomentum. The tree is common on the Eungella Range, North Queensland, and herbarium specimens from there are similar to Southern ones. It has also been recorded from Rockingham Bay by Mueller (Fragm. Phytogr. Austr. v. 210 and vi. 168).

### ORDER GUTTIFERÆ.

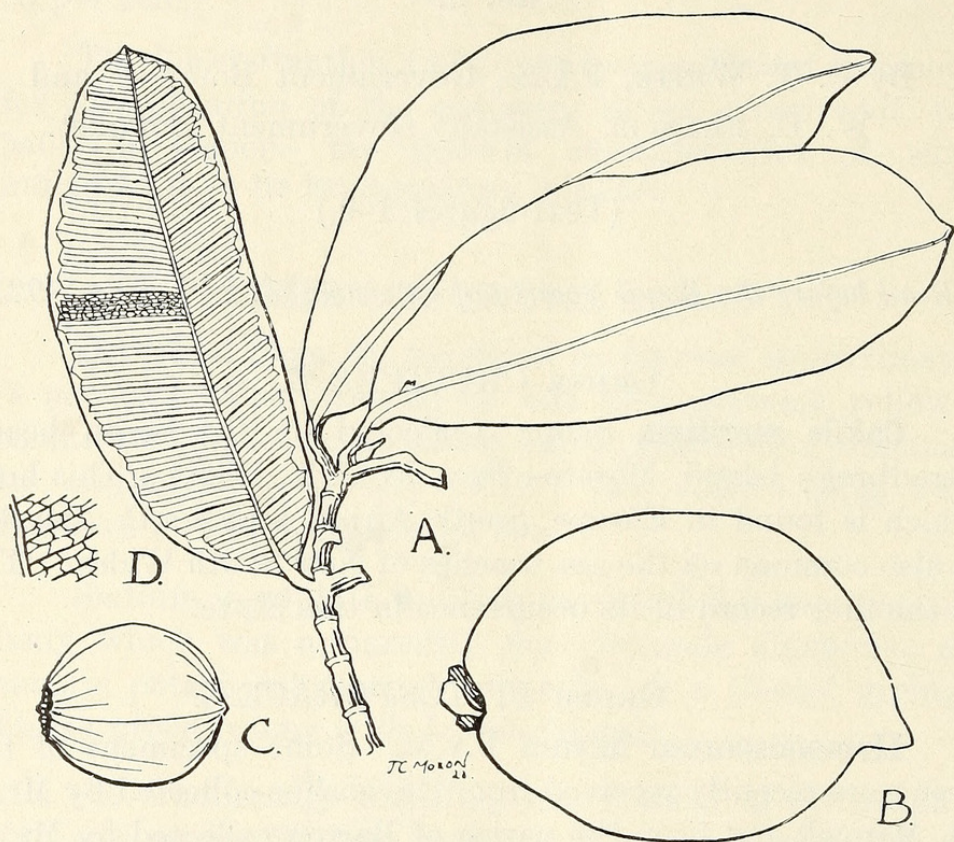
**Calophyllum touriga** sp. nov. Arbor magna ; ramulis glabris subteretibus ; foliis modice petiolatis (petiolis ca. 1.3 cm. longis) coriaceis glabris ellipticis prominente pellucido-punctatis (12-18 cm. longis, 5-8 cm. latis) ; inflorescentiis floribusque ignotis ; fructibus magnis (ad 10 cm. longis) ovoideo globosis obliquis apice acutis ; seminibus globosis (ad 2.5 cm. diam.).

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\* No. 1 in vol. xxxiii., 1921, pp. 152-165.



A rain forest tree attaining over 100 ft. (30 m.) in height. Barrel not flanged at base, bark scaly. Apparently glabrous. A branchlet 4 in. (10 cm.) long measures 2 lines (4 mm.) in diameter at base. At intervals and frequently between the



Text-figure 1.

*Calophyllum touriga* sp. nov. A, leafy shoot. B, fruit. C, seed. All about half natural size. D, portion of leaf showing venation,  $\times 3/2$ .

insertions of the leaves the young branchlets are marked by transverse cicatrix-like rings. Leaves elliptical, obtuse or rounded or shortly acuminate at the apex, entire, coriaceous, margins recurved, lateral nerves close, parallel and almost transverse, .5-1 mm. apart; measurement of leaves  $4\frac{1}{2}$ -7 in. (12-18 cm.) long, twice to three times as long as broad; petioles about  $\frac{1}{2}$  in. (1.3 cm.) long, prominently grooved on the upper side. No flowers available. Fruit large, apparently subtended by five orbicular calyx lobes, exuding a milky juice when cut, globular-ovoid, oblique, apex pointed, slightly narrowed at the base, attaining 4 in. (10 cm.) in length, endocarp in dry or partially dry fruit crustaceous, about .5 mm. thick. Seed globular, about 1 in. (2.5 mm.) in diameter. (Text-figure 1.)

Hab.: Bellenden-ker Range, at altitudes of 2,000-3,000 ft., C. T. White; Boonjie, D. Fraser; Gourka Pocket, Atherton Tableland, A. L. Merrotsy (fruiting specimens, January, 1923).



This tree, which is very plentiful in the localities enumerated, has a bark with a general resemblance to that of the Bolly Gum, *Litsea reticulata*. The timber is durable and is extensively used on farms for fencing posts and rails and for purposes in which hardwood is generally used. It also resembles the timber of *Litsea reticulata*, but is darker in colour and heavier in weight.

#### ORDER MALVACEÆ.

**Abutilon crispum** G. Don. Syst. i., 502. Collected at Bowen by Rev. N. Michael. This Indian and tropical and sub-tropical American plant was previously unrecorded for the State.

#### ORDER STERCULIACEÆ.

**Helicteres Isora** Linn. Collected on Settlement Creek, North-west Queensland, by L. Brass. An Asiatic plant only previously recorded in Australia from the Northern Territory.

#### ORDER TILIACEÆ.

**Corchorus olitorius** Linn. Collected on the Landsborough and Flinders Rivers of Central and North Queensland by C. T. White. A tropical Asiatic plant previously unrecorded for the State.

**Elæocarpus eumundi** Bail. The flowers of this species, which was named and described from fruiting specimens, have not been described previously. Following is a description of them :—

Racemes secund, arising from the scars of fallen leaves sometimes at a distance of 10 in. (25 cm.) below the apex of the branchlets; rhachis, pedicels, sepals, and petals silky pubescent; rhachis about 2 in. (5 cm.) long; pedicels slender, 4-6 lines (8-12 mm.) long; flowers pale or greenish yellow; sepals 5, narrow linear, acuminate, margins incurved, 4-5 lines (8-10 mm.) long; petals 5, oblong, 5 lines (10 mm.) long, divided at the apex for about one-fourth of their length into about 20 linear lobes; disc evenly and finely 10-toothed, glabrous; stamens about 30, puberulent; filaments about 1 line (2 mm.) long; anthers narrow linear, about 2 lines (4 mm.) long, one of the two apical points recurved and exceeding 1 line (2 mm.) in length; ovary ovoid, glabrous; style slender, glabrous, 4-5 lines (8-10 mm.) long.

Hab.: Flowering specimens collected Dec. 1922, at Fraser Island, by F. C. Epps.



## ORDER RUTACEÆ.

**Boronia granitica** Maid. & Bêche, Proc. Linn Soc. N.S.W. vol. xxx., 357 (1905). This shrub, which was first found at Emmaville, N.S.W., has now been collected at Stanthorpe, Queensland, by Alex. Macpherson, W. R. Petrie, and E. W. Bick.

## ORDER MELIACEÆ.

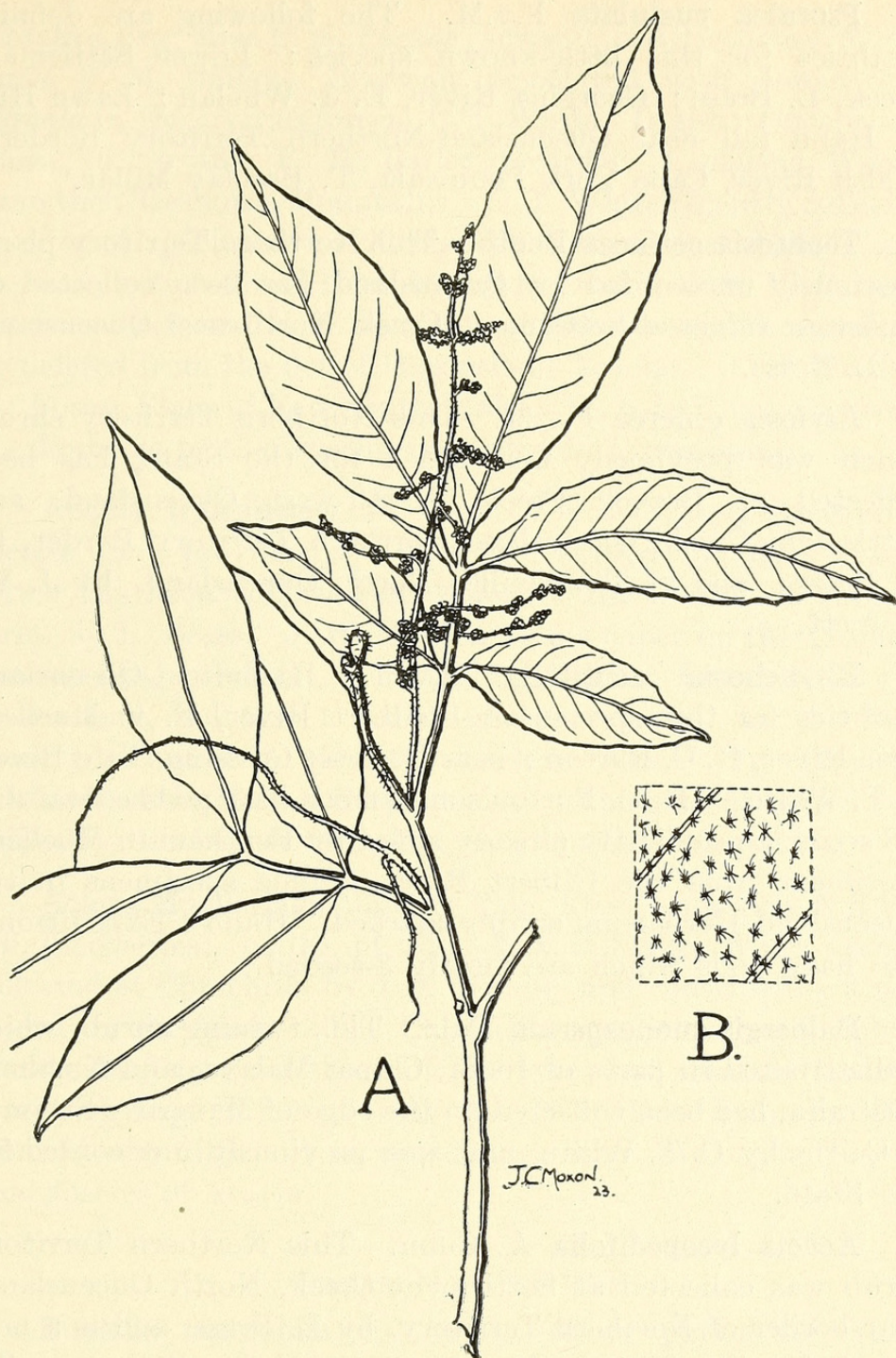
**Aglaia ferruginea** sp. nov. Arbor ramulis juvenilibus dense rufo-pubescentibus; foliis longe petiolatis imparipinnatis, 2-jugis, petiolo communi et rhachide stellato-pubescentibus ferrugineis, foliolis breviter petiolulatis submembranaceis ellipticis vel oblanceolatis acuminatis, paniculis axillaribus ramulis stellato-pubescentibus; floribus subsessilibus glomeratis, calyce 5 lobo, lobis ovatis obtusis; petalis 5 glabris imbricatis obovatis vel ovatis; tubo glabro obconico crenulato; antheris exsertis; ovario ad basem puberulo.

A small tree about 20 ft. in height with a barrel about 6 in. in diameter. Young shoots, branchlets, underside of leaves, and parts of inflorescence ferruginous pubescent with stellate hairs, the indumentum very dense on the young shoots, young branchlets, midrib, and primary nerves of the under side of the leaves. Leaflets 4 or 5, the lateral ones on petiolules of about 1 line (2 mm.) or less, the terminal ones on petiolules of about 4 lines (8 mm.) or less, thin or almost membranous, elliptical or oblanceolate, acuminate, the terminal ones narrowed at the base, margins recurved, lateral nerves numerous and parallel,  $2\frac{1}{2}$ -5 in. (6.4-12.8) cm. long, twice to three times as long as broad. Panicles in the upper axils, mostly shorter than the leaves, the ultimate branches consisting of very dense globular, ovoid, or oblong clusters of flowers. Flowers crowded, subsessile, globular, about 1 line (2 mm.) in diameter. Calyx beset on the outside with brown stellate hairs, divided for about two-thirds its length into 5 obtuse, ovate lobes about 1 mm. long. Petals 5, glabrous, strongly imbricate, obovate or ovate, about 1.5 mm. long. Staminal tube glabrous, obconical, slightly exceeding 1 mm. in length, crenulate at apex, anthers slightly exserted. Ovary (perhaps rudimentary) globular, minute, pubescent at base. (Text-figure 2.)

Hab.: Atherton Tableland, C. T. White (type); also received from the District Forest Officer, Atherton, without name of collector.

This species is distinguished from its nearest Australian ally, *Aglaia elaeagnoidea* Benth., by the dense ferruginous hairs of its young shoots, branchlets, and under sides of leaves and by the dense globular, ovoid, or oblong clusters of flowers on the ultimate panicle branches.





Text-figure 2.

*Aglaia ferruginea* sp. nov. A, flowering shoot about half natural size. B, portion of under surface of leaf,  $\times 5/2$ .

## ORDER LEGUMINOSÆ.

**Templetonia Hookeri** Benth. Specimens of this shrub have been collected at Settlement Creek, North-west Queensland, by L. Brass, and constitute a definite locality record in the State for the species. The leaves in these specimens are occasionally 3-foliolate.



**Psoralea pustulata** F.v.M. The following are definite localities for this little-known species : Lower Settlement Creek, L. Brass ; Georgina River, E. J. Whelan ; Lawn Hill, F. Hann (all near Queensland-Northern Territory Border) ; Walsh River, Cape York Peninsula, T. Barclay Millar.

**Tephrosia coriacea** Benth. This Northern Territory plant, previously unrecorded for Queensland, has been collected on sandstone ridges at Settlement Creek, North-west Queensland, by L. Brass.

**Atylosia cinerea** F.v.M. This Northern Territory shrub, which was previously unrecorded for the State, has been collected at Branch Creek, North-west Queensland, and Settlement Creek, Queensland-Northern Territory Border, by L. Brass ; and at Townsville, North Queensland, by J. W. Fawcett.

**Rhynchosia acutifolia** F.v.M. Definite Queensland localities for this species are—Gilbert River, F. v. Mueller ; Tate River, R. C. Burton ; near Railway Crossing, Tate River, C. T. White. R. C. Burton's specimens bear pods containing 2-3 seeds, a peculiarity already noted by Bentham in Mueller's specimens from the Gilbert River. Some specimens in the Queensland Herbarium simply marked "Hann's Expedition" also have pods which are mostly 3-seeded.

**Dalbergia monosperma** Dalz. This twining shrub, which is distributed in parts of India, China, Malaya, and Northern Australia, has been collected on the edge of Mangrove Swamps at Cairns by C. T. White, and was previously unrecorded for the State.

**Acacia lycopodifolia** A. Cunn. This Northern Territory shrub was collected at Settlement Creek, North Queensland, near border of Northern Territory, by L. Brass, and is a new record for the State. It was recorded by Bailey in the "Queensland Flora," ii., p. 483, as a Queensland species, and the locality Hammersley Range given. Hammersley Range, however, is in the north-west of Western Australia.

**Acacia flexifolia** A. Cunn. A New South Wales species not previously recorded for this State which has been collected at Catfish Creek, Inglewood District, by C. J. Smith.

**Acacia myrtifolia** Willd. has been collected in the following localities :—Logan River, Rev. B. Scortechini ; Russell Island,



Moreton Bay, Miss E. N. Parker ; summit of Glasshouse Mountains, F. M. Bailey ; Beerwah (associated with *Acacia complanata* in Eucalyptus forest), C. T. White. In the "Queensland Flora," ii., p. 489, F. M. Bailey recorded *A. amœna* Wendl. from the Glasshouse Mountains. C. T. White recently collected a series of specimens of *A. myrtifolia* from that district, and on examination found them to be identical with F. M. Bailey's specimens referred to *A. amœna*. *A. amœna* should, therefore, be deleted from the list of Queensland Acacias. J. H. Maiden, in "Forest Flora of New South Wales," v., p. 185, had expressed his doubt as to this species occurring in Queensland.

**Acacia translucens** A. Cunn. A Northern Australian species, not previously definitely recorded for Queensland, which has been collected at Massacre Inlet, Gulf of Carpentaria, by L. Brass. J. H. Maiden, in his paper on the Tropical Acacias of Queensland, p. 24 (Proceedings of Royal Society of Queensland, vol. xxx.), excluded this species, as the only locality recorded in the "Queensland Flora" (p. 494) was "Islands of the Gulf of Carpentaria." The present record now definitely establishes the plant as a Queensland species.

**Acacia Muelleriana** Maid. & Bak., Proc. Linn. Soc. N.S.W., viii. (2nd series), p. 515, pl. 25. A New South Wales species collected at Chinchilla by J. E. Young, and constituting a new record for the State. The Chinchilla specimens have slightly broader leaflets than those of the type, but resemble exactly specimens from Minore, N.S.W. (ex. Nat. Herb. Sydney). The plant is very different in appearance from any other Queensland species of *Acacia*.

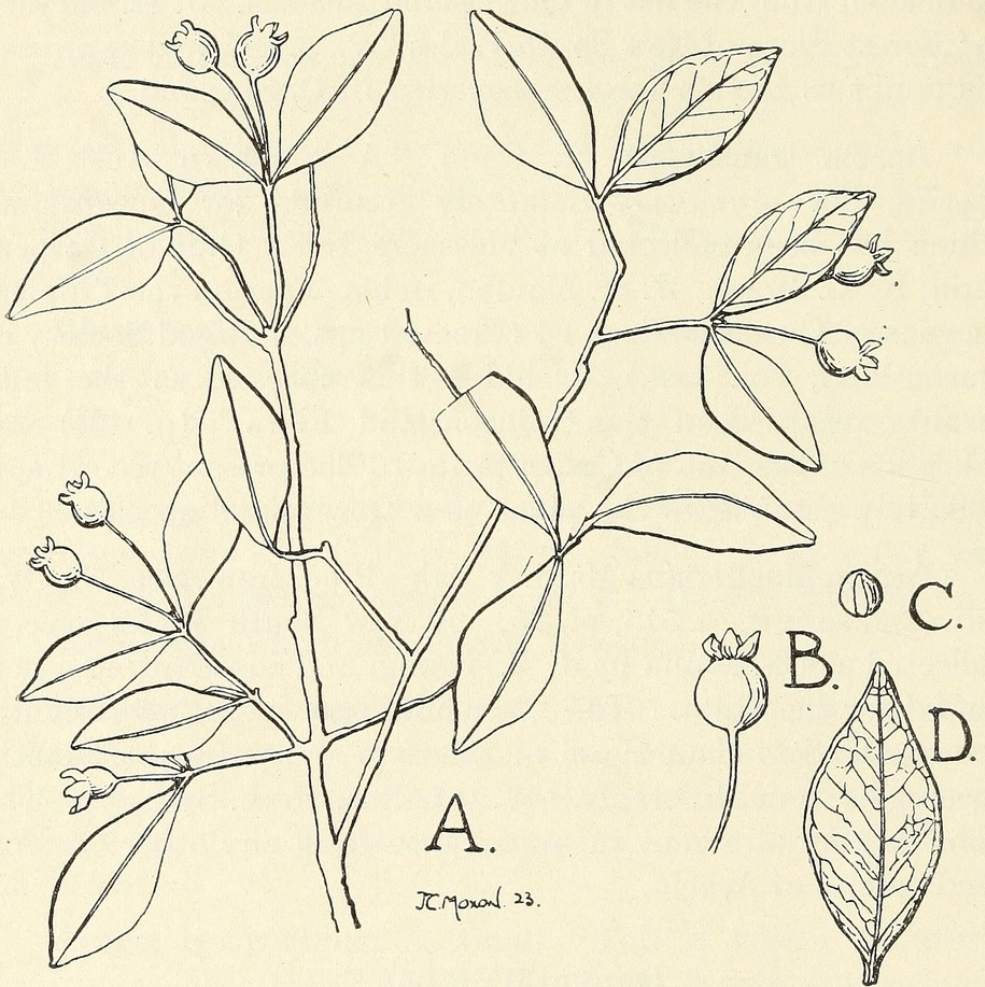
#### ORDER MYRTACEÆ.

**Eugenia macrohila** sp. nov. Arbor parva vel frutex diffusis ; foliis glabris, ellipticis vel oblanceolatis breviter petiolatis obtuse acuminatis vel raro obtusis subcoriaceis ; floribus ignotis ; fructibus solitaris pedicellatis globosis puniceis ; seminibus solitariis.

A straggling shrub or a small tree with an irregular or leaning barrel attaining about 6 in. diameter. Leaves elliptical or oblanceolate, narrowed at the base into a very short petiole, obtusely acuminate or less frequently obtuse at the apex, rather thick in texture, margins slightly recurved, at least in dried specimens, lateral nerves oblique, generally



3 to 5 conspicuous on each side of the midrib,  $1\frac{1}{4}$ - $2\frac{1}{2}$  in. (3.2-6.4 cm.) long, 2 to 3 times as long as broad. No flowers available. Fruit solitary in the upper axils on slender pedicels attaining 8 lines or rarely reduced to 1 line in length, young fruit finely pubescent with minute appressed hairs, mature fruit attaining about  $\frac{1}{2}$  in. (1.3 cm.) in diameter (when fresh), red, the pulp sweet and very pleasant to the taste. Persistent calyx-lobes 4, narrowly ovate or narrowly triangular, obtuse,  $2$ - $2\frac{1}{2}$  lines



Text-figure 3.

*Eugenia macrohyla* sp. nov. A fruiting branchlet. B, mature fruit. C, seed. D, leaf showing veining. All half natural size.

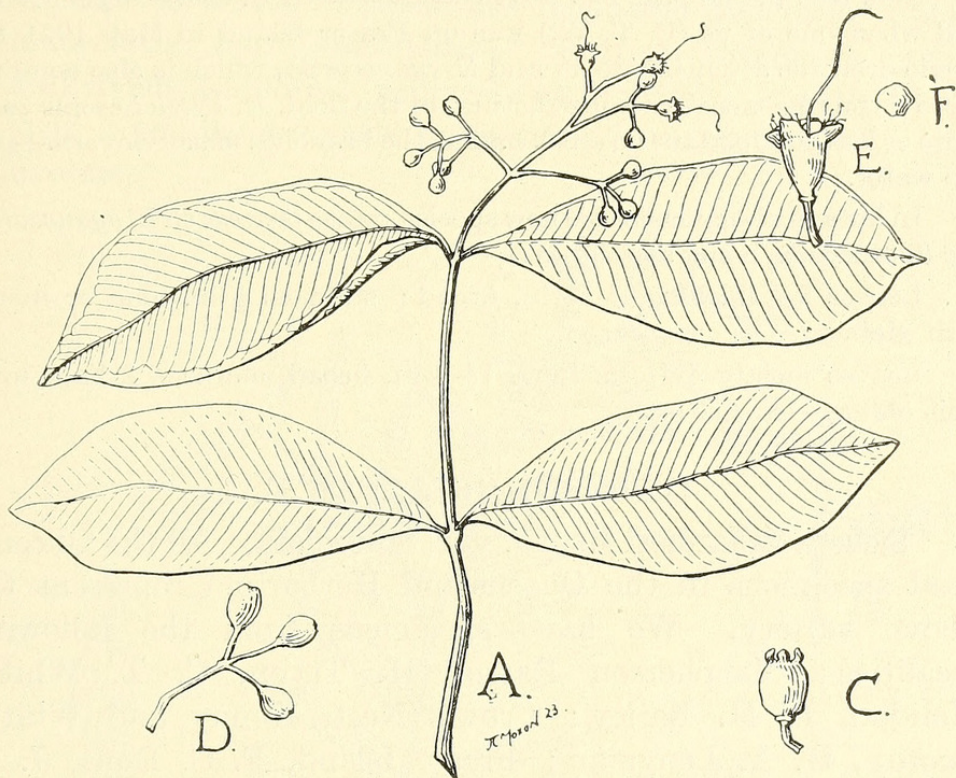
(4.5 mm.) long. Endocarp thin, readily broken with the fingers. Seed solitary, globular or slightly ovoid,  $\frac{1}{4}$ - $\frac{1}{3}$  in. (6-8 mm.) in diameter; hilum broad and nearly as long as the seed. (Text figure 3.)

Hab. : Marmor, 26 miles south-east of Rockhampton, W. D. Francis, March, 1920.

This species is allied to *E. carissoides* F.v.M., from which it is distinguished by its narrow leaves, slender pedicels, and the elongated calyx-lobes crowning the fruit.



**Eugenia Petriei** sp. nov. Arbor, ramulis foliisque glabris; foliis tenuiter coriaceis obovatis apice acuminatis basi in petiolum satis longum cuneatim coarctatis, costis lateralibus utrinque ultra 30 cum costa intramarginali a margine ca. 2 mm. remota conjugentes; floribus mediocribus in cymam terminalem pauciflorum digestis; calycis tubo turbinato (4 mm. longo), lobis 4, hyalino marginatis; petalis 4, suborbicularibus, (ca. 2 mm. diam.) staminibus 4 mm. longis, stylo 1.1-1.3 cm. longo; bacco oblonga 1-sperma.



Text-figure 4.

*Eugenia Petriei* sp. nov. A, flowering shoot. C, fruit. D, flower bud. E, flower. F, petal. A and C about half natural size, D natural size, E and F  $\times 2$ .

A medium-sized tree, glabrous in all parts. Leaves thin-coriaceous, obovate, mostly 4-4½ in. (10-11.3 cm.) long, and 1½-2 in. (3.8-5 cm.) broad; finely veined with numerous close parallel veins, the main lateral veins 1½-2 lines (3-4 mm.) apart with finer veinlets between them, the intramarginal vein mostly about 1 line (2 mm.) from the margin, veins and veinlets conspicuous on both faces in the dried leaf, apex abruptly acuminate or more or less tapering into an acuminate point, base gradually tapering into a petiole of 2-3 lines (4-6 mm.). Flowers white, not very numerous, borne in terminal trichotomous cymes usually shorter than the leaves. Cymes pedunculate



or sometimes sessile ; peduncles, branches, and pedicels rather stout. Calyx turbinate, 2 lines (4 mm.) long, lobes 4, scarcely 1 line ( $1\frac{1}{2}$  mm.) long, margin hyaline. Petals narrowed at the base into a very short claw, suborbicular, about 1 line (2 mm.) diameter. Stamens very numerous, 2 lines (4 mm.) long. Style slender, 5-6 lines (1.1-1.3 cm.) long. Fruit blue, oblong, about  $\frac{1}{2}$ -in. (1.3 cm.) long but not seen quite ripe, 1-seeded. (Text-figure 4.)

Hab. : Fraser Island, W. R. Petrie.

This tree in the past has been confused with *E. cyanocarpa* F.v.M., and when one of us (C. T. W.) was on Fraser Island in May 1921 Mr. Petrie drew his attention to it and *E. cyanocarpa*, which is also common there ; the two trees are quite distinct in the field, *E. Petriei* seems to be more or less confined to the creek banks, the branches usually overhanging the water.

In botanical sequence this new species comes nearest to *E. cyanocarpa*, the distinctions being as follows :—

Leaves 2-4 in. long,  $\frac{3}{4}$ - $1\frac{1}{2}$  in. broad ; stamens  $\frac{1}{2}$  in. long or more ; fruit globular—*E. cyanocarpa*.

Leaves mostly 4- $4\frac{1}{2}$  in. long,  $1\frac{1}{2}$ -2 in. broad, stamens 2 lines long, fruit oblong—*E. Petriei*.

#### ORDER UMBELLIFERÆ.

**Siebera Billardieri** Benth. var. **lanceolata**. All the Queensland specimens in the Queensland Herbarium represent the above variety. We have specimens from the following localities :—Macpherson Range, H. Tryon, C. T. White ; Helidon, F. M. Bailey ; Crow's Nest, Kenny and White ; Cooroy, H. A. Longman ; Fraser Island, F. C. Epps, J. E. Young.

#### ORDER COMPOSITÆ.

**Olearia oliganthema** F.v.M. This New South Wales shrub, which was previously unrecorded for Queensland, was collected on the Macpherson Range, Killarney district, by C. P. Saunders. The Queensland specimens differ from the type in possessing larger flowers and in the involucral bracts being densely silky pubescent. The description in the "Flora Australiensis" was drawn up from meagre material, and the plant evidently shows a much greater variation than there described.

#### ORDER EPACRIDEÆ.

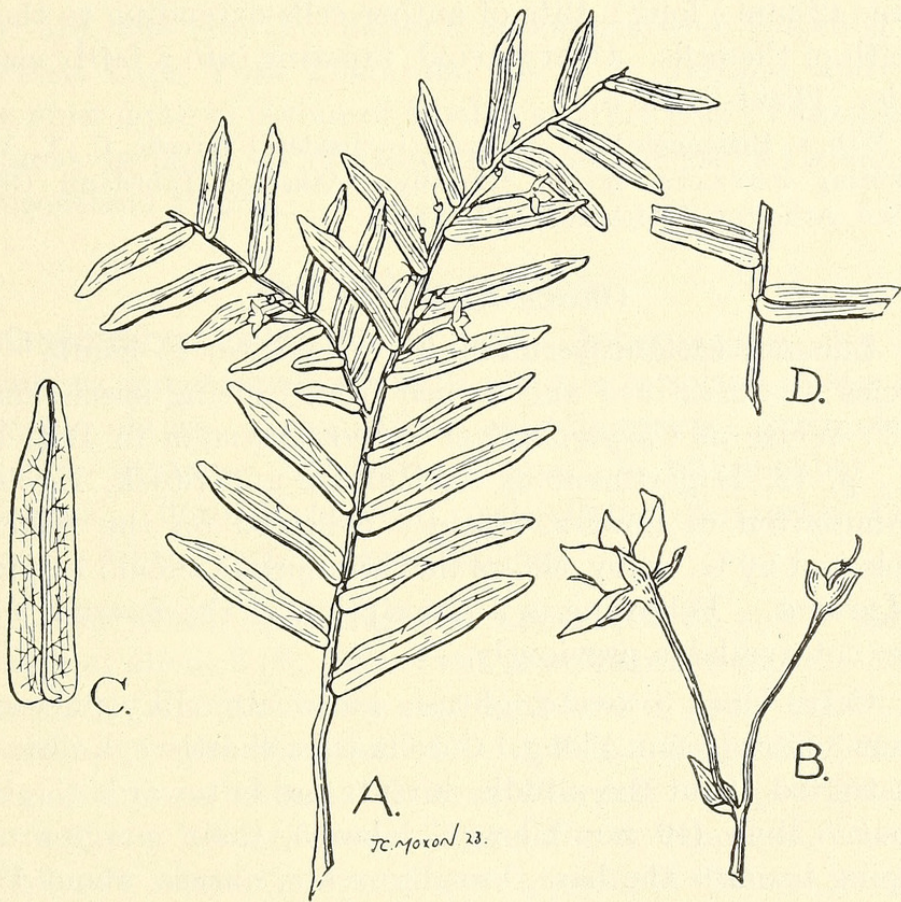
**Epacris longiflora** Cav. Collected on Mount Lindesay by W. Hill. J. E. Young and C. T. White also collected it there recently, and noticed that it was common on cliff faces. We



also have specimens from Springbrook, Macpherson Range, collected by Mr. J. Tait. It was omitted from the "Queensland Flora" although recorded from Mount Lindesay in the "Flora Australiensis." This mountain is on the border of New South Wales and Queensland, but almost wholly within the latter State. The species is common in the sandstone flora of New South Wales.

#### ORDER MYRSINACEÆ.

*Ardisia bifaria* sp. nov. Frutex erectus glabrus; foliis alternis distichis subsessilibus pellucido-punctatis, oblongo-lanceolatis basi auriculatis; floribus racemosis, racemis axillaribus 2-5 floris; pedicellis capillaribus; sepalis 4 lanceolatis petalis 4 ovatis acuminatis; staminibus 4; ovario ovoideo.



Text-figure 5.

*Ardisia bifaria* sp. nov. A, flowering shoot: B, flowers,  $\times 3$ . C, leaf showing venation. D, shoot showing attachment of leaves. A, C, and D, about half natural size.

A shrub attaining 4 ft. in height, glabrous. Branches terete. Leaves alternate, dotted with pellucid glands, distichous, subsessile, oblong-lanceolate, tapering but obtuse at the apex, cordate at the base, appearing oblique on account



of the lower basal auricle often overlapping the upper surface of the branchlet, and the upper basal auricle overlapping the under surface of the branchlet, midrib immersed and a few indistinct primary veins visible on upper surface of leaf, midrib raised and primary veins slightly more evident on the under side ; measurement of leaf-blade, 1-2 in. (2.5-5 cm.) long, 4-6 times as long as broad. Flowers in short axillary racemes of 2-5 flowers, the rhachis about 1 line (2 mm.) long. Pedicels capillary, 3-4 lines (6-8 mm.) long, each subtended by a lanceolate, concave bract about  $\frac{1}{2}$ -line (1 mm.) long. Calyx divided to the base into 4 lanceolate sepals about  $\frac{1}{2}$ -line (1 mm.) long ; petals 4, very shortly united and overlapping at the base, ovate, acuminate, nearly  $1\frac{1}{2}$  line (3 mm.) long. Stamens 4, subsessile, lanceolate or narrowly triangular, subcordate, about 1 line (2 mm.) long ; slits of anther cells extending to the full length of the cells. Ovary ovoid, tapering into a fairly slender style. (Text-figure 5.)

Hab. : Bellenden-Ker, common in lowland forests, C. T. White (flowering specimens, type) ; Glenallyn, Atherton Tableland, Gourka Pocket, Atherton Tableland, C. T. White.

#### ORDER SAPOTACEÆ.

**Lucuma castanospermum** (C. T. White) n. comb. This species was described and named from fruiting specimens by C. T. White as *Chrysophyllum castanospermum* in Bot. Bull. xxi., p. 12, Department of Agriculture and Stock, Brisbane. Examination of flowers, recently collected on the Atherton Tableland by G. Curry, shows that the species should be placed in *Lucuma*. Following is a description of the flowers, which were not available previously :—

Calyx-lobes 5, ovate, obtuse, imbricate, silky pubescent, about 3 lines (6 mm.) long. Corolla-tube shortly cylindrical or constricted about the middle, hirsute inside towards the base, about 5 lines (10 mm.) long ; lobes 5, their margins overlapping towards the base, broadly ovate, obtuse, about 1 line (2 mm.) long. Staminodia 5, obtuse, alternating with the corolla-lobes and about two-thirds their length. Stamens alternating with the staminodia and inserted lower in the corolla-tube ; filaments slender, under  $\frac{1}{2}$ -line (1 mm.) long ; anthers ovate, almost 1 line (2 mm.) long.

The presence of the staminodia in the flower and the absence of albumen in the seed indicate that this species should be assigned to *Lucuma*.



**Sideroxylon Brownlessianum** F.v.M. *Fragm.* vii., p. 111 ; F. M. Bailey, "Queensland Flora," iii., p. 959. Fruit, which were previously unknown, have been collected at Gadgarra, Atherton Tableland, by A. L. Merrotsy and C. T. White. Following is a description of them :—Fruit oval, 1 in. long and  $\frac{1}{2}$ -in. in diameter, 2-seeded. Seeds narrowly obovate,  $\frac{3}{4}$ -in. long ; testa dark brown, glossy ; hilum linear, about three-fourths the length of seed.

#### ORDER APOCYNACEÆ.

**Alstonia longissima** F.v.M., *Papuan Plants*, 1 (v.), p. 91 (1877). Specimens of this plant collected at Port Moresby, Papua, by C. T. White, show that the species is identical with *A. somersetensis*, Bail., "Queensland Agricultural Journal" i, pp. 229, 368 (1897). Bailey's specimens were collected at Somerset, Cape York Peninsula, by F. L. Jardine, and his name must lapse in favour of Mueller's earlier one. The species is figured on page 324 of Bailey's "Comprehensive Catalogue of Queensland Plants."

#### ORDER LAURACEÆ.

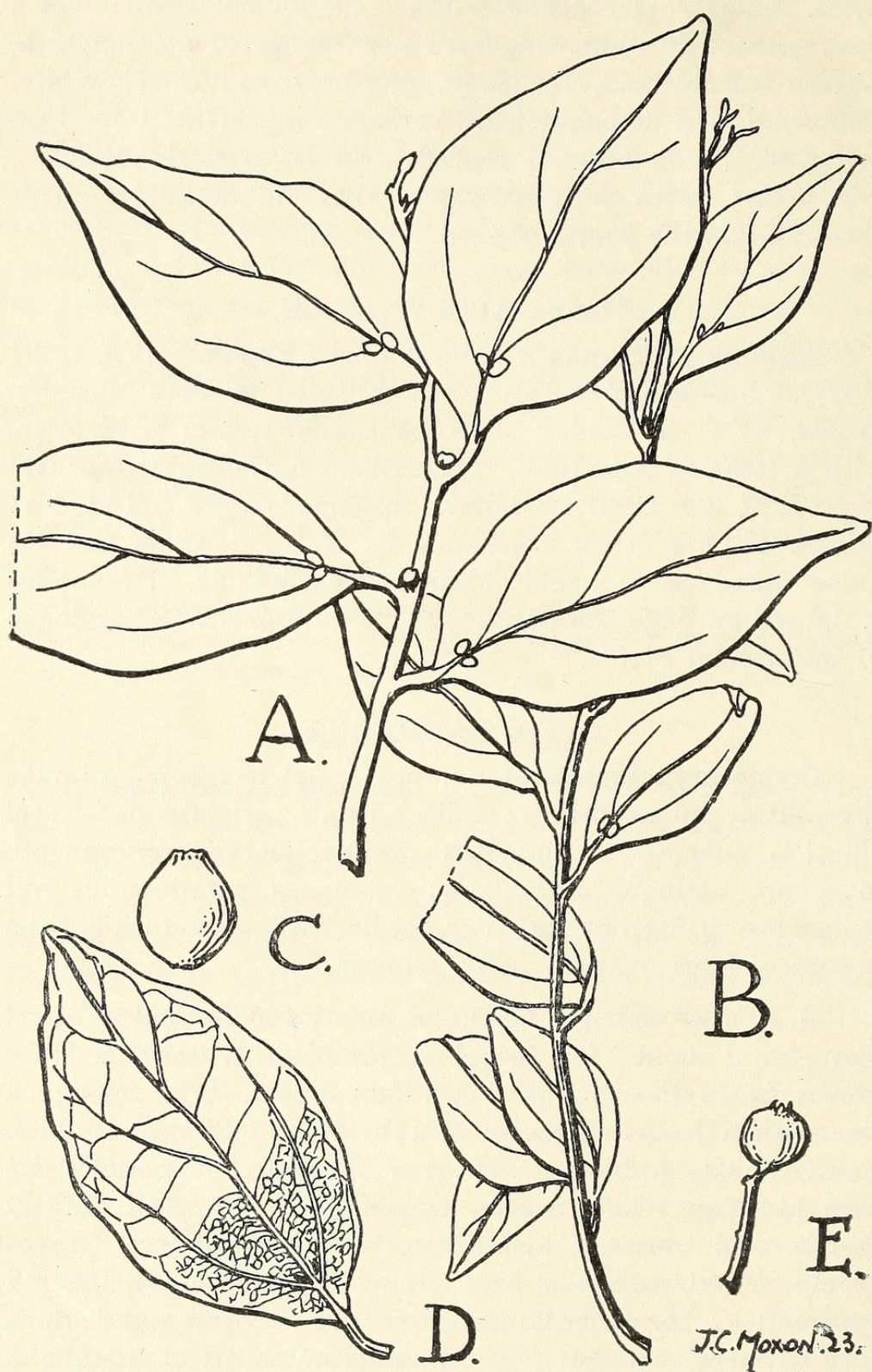
**Cryptocarya foveolata**\* sp. nov. Arbor magna, ramulis juvenilibus pubescentibus ; foliis alternis petiolatis ovatis vel ellipticis obtuse acuminatus subtriplinervis prominente foveolatis utrinque reticulatis ; paniculis terminalibus vel axillaribus ; floribus breviter pedicellatis, perianthii tubo obconico, lobis ovatis ; bacca globosa.

A tree attaining a height of about 100 ft. and a barrel diameter of about 2 ft. Barrel not prominently flanged. Bark brown, fairly smooth ; when cut, light brown,  $\frac{7}{16}$ -in. thick on a tree with a barrel diameter of 1 ft. 9 in. Sapwood white. Young shoots pubescent. Leaves alternate, on petioles 2-4 lines (4-8 mm.) long, ovate, lanceolate or elliptical, mostly shortly and obtusely acuminate, a pair of lateral nerves prominent towards the base giving the leaf a triplinerved appearance ; the other lateral nerves are very few and distant, both surfaces reticulate. The most prominent features of the leaves are the one or two pairs of hollow glands (domatia)

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\* Though this tree was originally named *C. cinnamomifolia* Benth. var. *parvifolia* by the late F. M. Bailey, the name *parvifolia* has already been applied specifically to a Philippine Island species of *Cryptocarya* by E. D. Merrill.





Text-figure 6.

*Cryptocarya foveolata* sp. nov. A, shoot from young tree. B, shoot from a very large tree. C and E, fruit at different stages. D, leaf showing under side. All natural size.



situated along the midrib at the axils of the principal lateral nerves forming protuberances on the upper surface and with orifices on the under side. Measurement of leaf-blade 1-2½ in. (2.5-6.5 cm.) long, 1½ to 3 times as long as broad. Panicles terminal and in the upper axils, very slender and raceme-like, generally shorter than the leaves. Flowers very shortly pedicellate. Perianth turbinate or campanulate, about 2 lines (4 mm.) long, the obconical tube about as long as the lobes, pubescent inside; lobes ovate, about 1 line (2 mm.) long. Stamens of the outer series nearly as long as the perianth segments; anthers ovate, obtuse; filaments broad, finely puberulent. Glands (6) at base of stamens, subsessile, ovoid or nearly globular, obtuse, puberulent at base, about .5 mm. in diameter. Three inner stamens lanceolate, obtuse, about as long as the outer ones, filaments broad and flat, finely ciliate on the margins. Three staminodia alternating with the three inner stamens on short broad stipites, broadly ovate, acute, cordate and puberulent at base, about 1 mm. long. Ovary immersed in the calyx-tube, narrowly ovate, puberulent with a few minute appressed hairs; style cylindrical, glabrous, apparently articulate above the ovary. Fruit black, globular, about ½-in. (1.2 cm.) in diameter, crowned by the small circular scar of the perianth tube. *C. cinnamomifolia* Benth. var. Bail. Cat. Queens. Woods 1886 and subsequent editions No. 313A; *C. cinnamomifolia* Benth. var. *parvifolia* Bail. "Queensland Flora," pt iv., p. 1301 (1901). (Text-figure 6.)

Hab.: Mount Mistake, F. M. Bailey; Roberts Plateau, Macpherson Range, C. T. White; Ranges eastward of Emu Vale, C. B. Saunders, W. D. Francis.

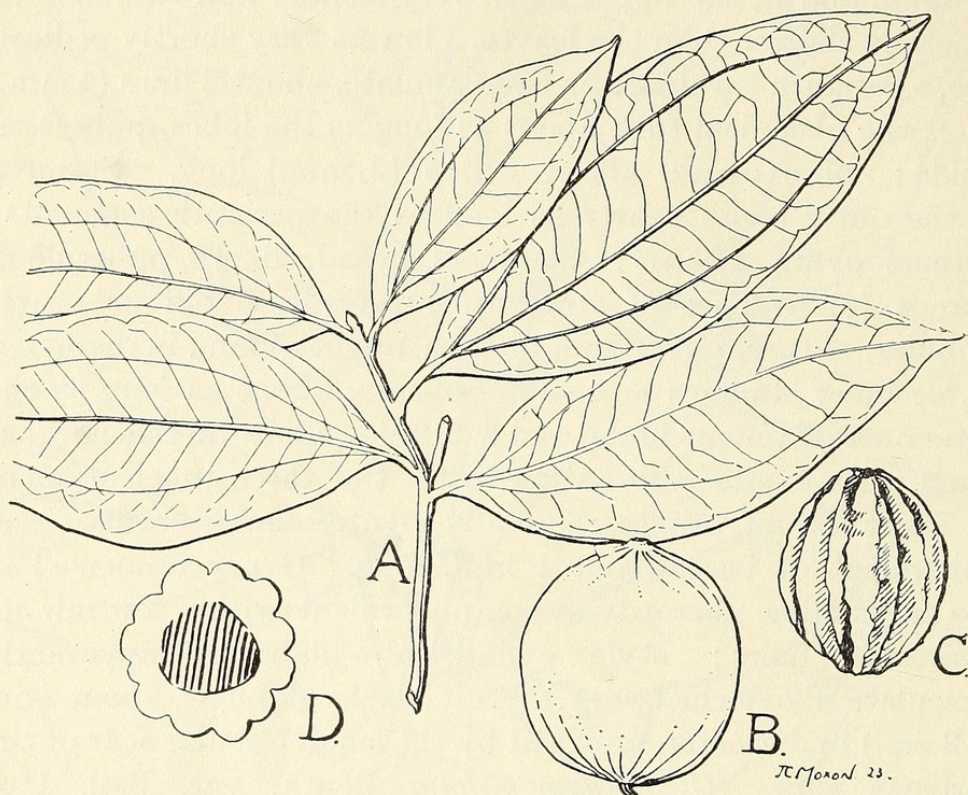
This tree is allied to *Cryptocarya cinnamomifolia* Benth., from which it is distinguished by its smaller leaves containing large domatia and lacking a glaucous under-surface, and by its globular not-depressed fruit.

***Cryptocarya pleurosperma* sp. nov.** Arbor magna novellis sericeo pubescentibus; foliis petiolatis alternis ellipticis obtuse acuminatis prominente triplinerviis supra nitidis; floribus ignotis; fructibus ovoideo-globosis; seminibus rugoso-costatis, costis ca. 12.

A tall tree, young buds silky pubescent. Young branchlets angular towards the growing points. Petioles somewhat flattened in the upper part or the leaf laminæ shortly decurrent, 3-5 lines (6-10 mm.) long. Leaves alternate elliptical, shortly and obtusely acuminate, prominently triplinerved, transverse



veins visible but not prominent, upper surface smooth and glossy, under surface darker and duller, measurement of lamina  $3\frac{1}{2}$ - $5\frac{1}{2}$  in. (9-14 cm.) long, 1.5-2.5 times as long as broad. No flowers available. Fruit ovoid-globular, red, over  $1\frac{1}{2}$  in.



Text-figure 7.

*Cryptocarya pleurosperma* sp. nov. A, leafy shoot. B, fruit. C, seed. D, seed in transverse section showing thick, ribbed putamen. All half natural size.

(3.8 cm.) long. Seed ovoid-globular, rugose and very prominently longitudinally ribbed, ribs generally 12 in number, putamen walls 2-4 lines (4-5 mm.) thick. (Text-figure 7.)

Hab.: Bellenden-Ker, C. T. White (type); Gadgarra, Atherton District, T. Fuller; Johnstone River, Rev. N. Michael.

In its triplinerved leaves and costate seeds this species resembles *C. australis* Benth., to which it is apparently closely allied. It is distinguished from *C. australis* by its more strongly costate and larger very rugose seeds which are twice the size, and its broader and larger leaves.

#### ORDER PROTEACEÆ.

**Persoonia oxycoccoides** Sieb. This species, previously known from Victoria and New South Wales, has been collected at Inglewood, west of Warwick, Southern Queensland, by C. J. Smith.



## PLACOSPERMUM gen. nov.

Flores hermaphroditi. Perianthium cylindraceum regularis vel parum irregularis, superne recurvum (segmentis 4, demum solutis ?). Stamina 4, antheris linearibus quorum 3 imperfectis, filamentis infra medium perianthii insertis. Glandulæ hypogynæ 4, angustæ. Ovarium subsessile, angustum, ovulis numerosis uniseriatis. Folliculus coriaceo-lignosus, plurispermus. Semina compressa, samaroidea, late alata. Arbor. Folia alterna, integra, coriacea, pennivenia. Flores racemosi, racemis ad apices ramorum paniculatis.

Flowers hermaphrodite. Perianth terete or cylindrical, recurved in the upper part ; segments 4, regular or nearly so. Anthers 4, but only one perfect in each flower, linear, with 2 linear parallel cells adnate to the connective ; filaments erect, linear or oblong, inserted below the middle of the perianth segments. Hypogynous scales 4, linear or setaceous, distinct. Ovary scarcely stipitate, narrow and terete ; ovules numerous ; style continuous with the ovary. Fruit a follicle with a thin, woody exocarp, 1-celled. Seeds numerous, in a single row, flat and broadly winged ; testa membranous ; cotyledons thin and flattened. A tall tree. Leaves alternate, often crowded towards the ends of branchlets, entire and penninerved. Flowers singly pedicellate in racemes arranged in panicles at the ends of branchlets ; pedicels subtended by bracts.

*Derivation* : From Greek *plax*, a flat body ; *sperma*, a seed ; alluding to the flattened seeds.

This genus evidently constitutes a new tribe of the sub-family Grevilleoideæ, as it cannot be included in any of the tribes described in Bentham and Hooker's "Genera Plantarum" or Engler and Prantl's "Naturlichen Pflanzenfamilien." The new tribe, for which we propose the name Placospermeæ, could be placed between Embothriæ and Banksiæ as under :—

*Sub-family Grevilleoideæ*.—Flowers in pairs or single in the axils of the bracts. Ovary with 2 or numerous ovules. Fruit with 1 or numerous seeds.

*Grevilleæ*.—Ovary mostly with 2, rarely 4, ovules.

*Embothriæ*.—Ovary with 4 or more ovules in two series.

*Placospermeæ*.—Ovary with 15 or more ovules, in a single series. Seeds transversely arranged in the follicles.

*Banksiæ*.—Ovary with 2 collateral ovules.

**Placospermum coriaceum** sp. nov. Arbor glabra ; ramulis validis ; foliis petiolatis spathulatis vel oblanceolatis obtusis coriaceis, marginibus integris recurvulis ; paniculis terminalibus



foliis brevioribus ; bracteis concavis, ovatis vel triangularibus ; floribus pedicellatis, corolla superne recurva ; staminibus corolla fere æquantibus ; folliculis subglobosis obliquis, plurispermis, seminibus ca. 20 uniseriatis, compressissimis late alatis.

A tall tree, all parts glabrous. Branchlets thick, marked by the broad cicatrices of fallen leaves. Leaves spatulate or oblanceolate, obtuse, coriaceous, margins entire and minutely recurved, tapering into a petiole  $\frac{1}{2}$ - $\frac{3}{4}$  in. (1.3-1.9 cm.) long ; midrib, lateral nerves and a few reticulate ones visible on both surfaces ; measurement of leaf-blade 4-7 in. (10.7-17.8 cm.) long 3-5 times as long as broad. Panicles shorter than the leaves. Bracts subtending the pedicels concave, ovate or triangular, over 1 line (2 mm.) long. Pedicels about  $\frac{1}{2}$ -in. (1.3 cm.) long. Perianth about  $\frac{1}{2}$ -in. (1.3 cm.) long. Stamens nearly as long as the perianth segments, the filaments of the fertile ones about 1 line (2 mm.) long. Hypogynous scales about 2 lines (4 mm.) long. Ovary terete, about 4 lines (8 mm.) long including the continuous style. Follicles subglobose, oblique, about  $1\frac{1}{2}$  in. (3.8 cm.) in diameter. Seeds about 20 in each follicle, arranged in a single row and filling the follicle, flat and strongly compressed, broader than long,  $\frac{3}{4}$ - $1\frac{1}{4}$  in. (1.9-3.2 cm.) broad including the broad wing. (Text-figure 8.)

Hab. : Mount Alexander, near Daintree, North Queensland, ex Queensland Herbarium, without collector's name (flowering specimens, type) ; Reserve 418 Danbulla, Atherton district, Forest Ranger D. Fraser (fruiting specimens).

To Mr. B. F. Kruger, Wood Technologist, Queensland Forest Service, we are indebted for the loan of a sample of the wood of the species. The sample is a cylindrical piece about  $2\frac{1}{2}$  in. in diameter, either a section from the barrel of a young tree, or from a branch. Examined in cross-section with a lens it shows no "soft tissue" (wood parenchyma), a somewhat unusual feature for a Proteaceous wood but which is also a characteristic of the wood of *Embothrium Wickhami* F.v.M. The vessels ("pores") are numerous, isolated, or in groups of two or four. The rays are fine and number from about 28-36 to the cm. in tranverse section ; in a tangential section they are seen to be from .5-1 mm. in height. The wood is light brown in colour.

#### ORDER EUPHORBIACEÆ.

**Croton densivestitum** sp. nov. Arbor ramulis dense stellato-pubescentibus ; foliis petiolatis, petiolis dense pubescentibus ; foliis alternis raro suboppositis vel subverticillatis, ellipticis lanceolatis vel oblanceolatis acuminatis supra





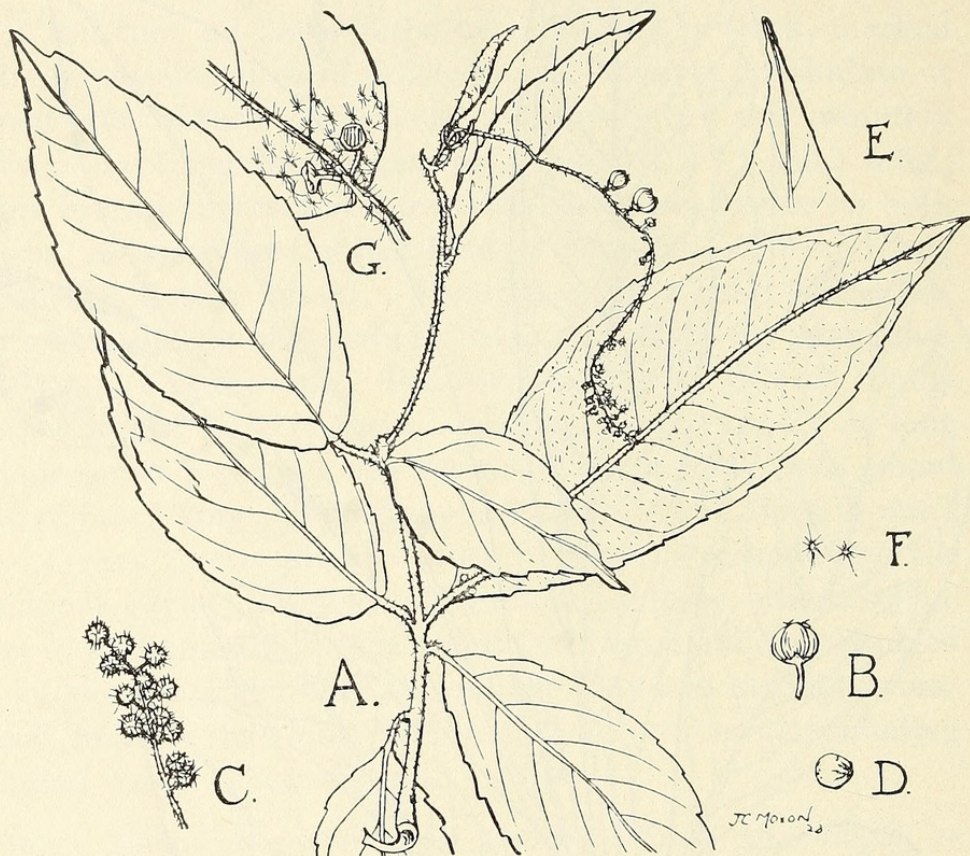
Text-figure 8.

*Placospermum coriaceum* gen. et sp. nov. B and C, follicles. D and E, seeds. F, reticulate surface of wings of seeds. G, a single flower. All half natural size except F ( $\times 5$ ), and G (natural size).

R.S.—G



glabratis subtus pubescentibus biglandulosis ; stipulis setaceis vel capillaribus ; racemis terminalibus dense pubescentibus, bracteis setaceis ; floribus pedicellatis, calyce alte 5-lobato intus hirsutis ; capsulis dense stellato-pubescentibus, stigmatibus bifidis ; seminibus subglobosis.



Text-figure 9.

*Croton densivestitus* sp. nov. A, flowering twig, about half natural size. B, fruit, about  $\frac{5}{8}$  natural size. C, terminal portion of raceme,  $\times 3/2$ . D, seed, natural size. E, apex of leaf. F, stellate scales,  $\times 10$ . G, base of leaf, under side, showing glands,  $\times 4$ .

A shrub, the branchlets inflorescence and under sides of leaves densely pubescent with stellate hairs. Branchlets terete. Petioles densely pubescent,  $\frac{1}{4}$ -1 in. (.6-2.5 cm.) long. Leaves alternate, occasionally nearly opposite or whorled, elliptical, lanceolate or oblanceolate, shortly but not broadly rounded at the base, prominently acuminate, margins serrate or entire, upper surface nearly glabrous, midrib and primary lateral nerves visible on both surfaces, the reticulate ones obscure, glands situated on the under side of the leaf, one on each side of the base of the midrib where the basal lateral nerves join it, glabrous and obconical ; measurement of leaf blade  $3\frac{1}{2}$ - $5\frac{1}{2}$  in. (9-14 cm.) long, twice to thrice as long as broad. Stipules



when present setaceous or almost capillary, 1-2 lines (2-4 mm.) long. Racemes terminal, 2-3 in. (5-7.7 cm.) long, males in the upper, females in the lower portion. Bracts subtending the pedicels, setaceous, about  $\frac{1}{2}$ -line (1 mm.) long. Pedicels  $\frac{1}{2}$ -1 line (1-2 mm.) long. Calyx hirsute inside, divided nearly to the base into 5 lanceolate lobes, about  $\frac{3}{4}$ -line (1.5 mm.) long. Petals (in male flowers) 5, lanceolate or oblong, obtuse, ciliate on the margins,  $\frac{3}{4}$ -line (1.5 mm.) long. Stamens 10-12, slightly shorter than the petals; anthers ovate. Capsule stellate pubescent, tridymous, 3-4 lines (6-8 mm.) broad; styles divided into 2 branches about 1 line (2 mm.) long. Seeds subglobose, pale brown, mottled or streaked with dark brown, about 2 lines (4 mm.) in diameter. (Text-figure 9.)

Hab.: Harvey's Creek, F. M. Bailey (Bellenden-Ker Expedition of 1889); (type); lowland rain forests, Bellenden-Ker, C. T. White, March 1922 (fruiting specimens).

Among the Queensland species this one is apparently allied to *C. arnhemica* Muell. Arg. var. *urenæfolius* Bail. (to which it was referred by Bailey in Report of Bellenden-Ker Expedition) and to *C. acronychioides* F.v.M. From the latter it is distinguished by its dense indumentum and long acuminate leaves, and from the former by its narrower almost non-reticulate leaves and smaller flowers and fruit.

#### ORDER CONIFERÆ (TAXACEÆ).

**Podocarpus spinulosa** R. Br. This New South Wales undershrub, which was not previously recorded for the State, has been collected and noticed to be very abundant by C. T. White on Stradbroke Island, in the sandy forest land between Dunwich and Point Lookout. The specimens (collected in March and July) bore leaves only.

**P. Ladei** Bail. This species was described from specimens bearing leaves and immature fruit. A. L. Merrotsy has recently collected mature fruiting specimens from the same locality, Mt. Spurgeon, North Queensland, in which the type material was collected. He described the trees as not exceeding 3 ft. in barrel diameter, and collected the fruiting specimens in February 1923. The mature fruit are bluish black, ellipsoid, fleshy,  $1\frac{1}{2}$  in. (4 cm.) long, 1 in. (2.5 cm.) broad; seed  $1-1\frac{1}{6}$  in. (2.5-3 cm.) long, 8 lines (1.7 cm.) wide, the apex with a short, sharp, apiculate point. Bailey's description and illustration are in the "Queensland Agricultural Journal," vol. xv. (1905), p. 899 pl. 22.



## ORDER GRAMINEÆ.

**Panicum ctenanthum** F.v.M. This grass, which was previously unrecorded for Queensland, has been collected at the Gilbert River, North Queensland, by C. T. White. The specimens differ from the type in having most commonly 3 instead of only 2 spikes to the head, the spikes are also longer—4 in. (10 cm.) long—but otherwise agree with the description of the type material.

**P. majusculum** F.v.M. ex Bentham Fl. Austr., vii., 482, 1878; Ewart and Davies, Flora North. Terr., 38, 1917. This grass, which was previously unrecorded for Queensland, has been collected at the Gilbert River, North Queensland, by C. T. White. The specimens differ from the original description quoted above in having the outer glume 5-7-nerved instead of 3-nerved. Examination of type specimens kindly lent by Mr. Laidlaw from the National Herbarium, Melbourne, showed the outer glume to be often more or less distinctly 5-nerved.

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White, C. T. and Francis, W. D. 1924. "Contributions to the Queensland Flora. No. 2." *The Proceedings of the Royal Society of Queensland* 35, 63–84.  
<https://doi.org/10.5962/p.351492>.

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