

Contributions to the Queensland Flora, No. 6.

By C. T. WHITE, Government Botanist.

(Read before the Royal Society of Queensland, 28th November, 1938.)

PLATE VI.

The present paper contains additions to the flora of Queensland since the publication of the previous contribution (these Proceedings, Vol. 47, pp. 235). The determinations of some of the species new to the flora of Queensland have been made by different members of the staff of the Queensland Herbarium. An indication of the botanist responsible is given under the individual headings. A description of a previously undescribed *Calandrinia* by Miss D. A. Goy is included.

Family PITTOSPORACEAE.

Citriobatus linearis sp. nov.

C. multiflorus A. Cunn. var. *intermedius* F. M. Bail. Queensl. Agr. Journ. XXX., 399, Plate 65 (1913).

C. multiflorus A. Cunn. var. *linearis* F. M. Bail. l.c. Pl. 66 (1913).

Frutex robustus 2-3 m. altus, ramulis abortivis brevibus spinosis armatus vel ramulis ordinariis in spinam pungentem terminantibus, ramulis junioribus pubescentibus mox glabris. Folio supra nitida linearia vel anguste obovata ad apicem acuta vel rotundata, ad basin valde angustata vel rarius subrotunda 1-3 cm. longa, 0.2-0.5 cm. lata, petiolo 0.5-1.5 mm. longo, costa media supra leviter impressa, subtus leviter elevata, venis obscuris vel in sicco subinde leviter impressa. Flores numerosi, solitarii, axillares, pedicello 2-5 mm. longo. Sepala 5 anguste ovata 1 mm. longa. Petala in tubum longum conniventia; tubus 3.5-4 mm. longus; lobi ovati, 1.5 mm. longi. Antherae leviter exsertae, filamentis ligulatis. Ovarium lageniforme, pilosum. Fructus globosus, pisiformis, ca. 1 cm. diam. Seminibus nitidis rubro-fuscis 3 mm. diam.

A very common shrub, especially as second growth in the drier rain-forest areas of south-east Queensland. The following is a selection of localities from the Queensland Herbarium, Brisbane:—

Moreton District.—Yarraman, M. A. Cameron, No. 754 (flowers), Oct., 1924. Allandale, near Boonah, Rev. N. Michael, No. 1997. Laidley, C. T. White (a very common shrub). Rosewood, C. T. White (fruits), May, 1913. Gold Creek, near Brisbane, C. T. White (young flower buds), 27th August, 1922.

Darling Downs.—Bunya Mountains, C. T. White. Main Range, F. M. Bailey (growing to the size of a small tree).

Burnett District.—Gayndah, Dr. F. H. Kenny (type). Childers, Dr. F. H. Kenny (shrub, flowers very sweet smelling). The Hummock, Bundaberg, Rev. N. Michael, No. 1776 (low shrub 3-6 ft.).

C. linearis was placed as a variety of *C. multiflorus* A. Cunn. by F. M. Bailey, but I think there is no doubt it is a very distinct species and that its affinities lie more with *C. pauciflorus* A. Cunn. rather than

with *C. multiflorus* A. Cunn. All three species are very common in South-east Queensland. *C. multiflorus* is mostly found in the wetter rain-forest areas, particularly in mountain localities such as the Macpherson Range, Tambourine Mountain, &c. *C. linearis* and *C. pauciflorus* do not occur in the wetter zone. *C. linearis* grows in the eastern parts of the Darling Downs, the West Moreton, and the Burnett districts. *C. pauciflorus* is common in the Darling Downs and Burnett districts, and extends further west and north than *C. linearis*, being common in the Maranoa, Port Curtis, and Leichhardt districts. The northernmost locality for it in the Queensland Herbarium is Cannon Valley (North Kennedy district), Rev. N. Michael, No. 1035. I am not sure of F. M. Bailey's var. *intermedius* of *C. multiflorus*. The type of the variety consists of a leafy twig with detached fruits; the leaves approach those of *C. pauciflorus* A. Cunn., but the fruit *C. linearis*, and if the leaves and fruits are correctly matched it is probably only a growth form. I cannot see how F. M. Bailey's *C. pauciflorus* A. Cunn. var. *Kennyi* differs from the type. The only other species of the genus, *C. lancifolius*, grows in the rain-forests near Killarney and in the Lamington National Park. I have not seen it in fruit, and the measurements are taken from F. M. Bailey's original description. A characteristic feature in the field is that the leaves have a strong taste of carrots when chewed. A key to the species of the genus is given herewith:—

Leaves toothed or lobed in the upper part, rarely entire or nearly so, flowers sessile, fruit about 1 cm. diam.	<i>C. multiflorus</i>
Leaves linear, rarely obovate, 1-3 cm. long, 0.2-0.5 cm. broad, flowers pedicellate, fruit about 1 cm. diam.	<i>C. linearis</i>
Leaves all obovate, 1-1.5 cm. long, 0.5-0.8 cm. broad, flowers sessile, fruit 2 cm. diam.	<i>C. pauciflorus</i>
Leaves lanceolate, rarely elliptic, 2-6 cm. long, 0.8-2 cm. broad, flowers sessile, fruit about 1 cm. diam. (Bailey)	<i>C. lancifolius</i>

Family POLYGALACEAE.

Xanthophyllum fragrans sp. nov.

Arbor mediocris, partibus novellis tomentosis, ramulis lenticellatis, cortice atro-brunneo obtectis. Folia lanceolata utrinque nitida, lamina 17-20 cm. longa, 5-7.5 cm. lata, petiolo 1 cm. longo, costa media supra impressa subtus elevata, nervis secundariis validis, venis et venulis prominulis. Racemi terminales vel axillares 5-12 flori; rhachi 5-10 cm. longa, dense tomentosa; pedicellis 2 cm. longis, dense tomentosis, apicem versus incrassatis. Sepala inaequalia, puberula, margine ciliolata, majora 1.2 cm. longa, 6 mm. lata. Petala cremea, purpureo-maculata, 6.5 cm. longa, 1 cm. lata. Stamina 8; filamentis petalis adnatis, leviter applanatis, dense hirsutis, apicem versus exceptis; antheris glabris 2 mm. longis. Pistillum 6 cm. longum, gynophoro pubescenti 1.5 cm. longo, ovario glabro applanato 5 mm. longo, stylo glabro applanato, stigmatibus capitatis. Fructus oblongus, 9 cm. longus, 6 cm. diam.

Daintree River in rain-forest, on creek-banks, foothills of Thornton Peak, L. J. Brass and C. T. White, No. 264 (type: flowering specimens), 20th September, 1937 (tree 20 m., flowers very fragrant, cream, turning yellow with age, streaked and flecked with purple). Daintree River, common in rain-forest, S. F. Kajewski, No. 1430 (fruiting specimens), 2nd December, 1929 (large tree up to 20 m.; fruit oblong, coloured and shaped similar to a mango).

Family PORTULACACEAE.

Anacampseros australiana J. M. Black.

Moonie River, Nindigully, growing in hard red soil. R. Roe, February, 1938.

Determination by W. D. Francis—verified by comparison with the type by J. M. Black.

Calandrinia Morrisae D.A. Goy sp. nov.

Herba debilis carnosae; caulibus foliaceis ca. 30 cm. longis. Folia lineari-lanceolata basem versus in petiolum brevum angustata, 1.5–2 cm. longa; stipulis minutis, lanceolatis. Flores in racemos laxos longos dispositi, pedicellis crassis ca. 1 cm. longis, patentibus et recurvis; bracteis minutis, pallidis, costa media prominenti; sepalis subrotundis, apice acutis; petalis 6, lineari-lanceolatis, 7–8 mm. longis in parte superiore purpureis in parte inferiore albis; staminibus 8–14, 5 mm. longis, filamentis liberis, antheris breviter oblongis; stylis 4. Capsula ca. 8 mm. longa, anguste oblonga, obtusa; seminibus cochleatis numerosis nigris nitidis prominenter costatis.

Caiwarro, Eulo, S.W. Queensland, Katherine I. Morris, 31st August, 1936.

The closest affinity of the present species is *C. volubilis* Benth. The two may be differentiated as follows:—

Styles 4; capsule narrow oblong, obtuse; seeds cochleate, black, prominently costate, the costae very distinct and without any transverse raised markings *C. Morrisae*

Styles 3; capsule conical; seeds reniform, coppery, lightly costate the costae indistinct and with numerous transverse raised markings . . . *C. volubilis*

Family TILIACEAE.

Corchorus tridens L.

Hughenden, W. D. Francis, May, 1934. Not previously recorded for Queensland (determination by L. Smith).

Family RUTACEAE.

Acronychia pubescens sp. nov.

A. melicopoides F. v. M. var. *lasiantha* F. v. Muell. Fragm. VII., 145 (1871).

Melicope pubescens F. M. Bail. Bull. IX.—Botany (Dept. Agric., Brisbane), 9 (1891); Comprehens. Cat. Q. Pl., fig. 59 (1912).

Melicope pubescens F. M. Bail. var. *superba*, Domin. Bibl. Bot. 89 (IV.), 843, 1927.

Sarcomelicope pubescens Domin.

Arbor mediocris, ramulis robustis, partibus novellis dense sericeo-hirsutis. Folio 1–3-foliolata, petiolo pubescenti vel deinde glabrescenti, 2–3.5 cm. longo. Foliola chartacea, lanceolata, sessilia, supra glabra vel pilis paucis vestita, subtus pubescentia, 6–18 cm. longa, 2–6 cm. lata, venis et venulis subtus valde elevatis. Cymae axillares, ramulis pedicellisque dense et molliter pubescentibus, pendunculo communi 0.5–1 cm. longo, pedicellis 1–3 mm. longis. Calyx extus dense sericeo-pubescentis, lobis 4, late ovatis, vix 2 mm. longis. Petala 4, extus dense sericeo-pubescentia, intus glabra, anguste ovata 6 mm. longa, ad basin 3 mm. lata. Stamina 8, filamentis applanatis, margine ciliatis. Ovarium glabrum. Discus pilis longis albis dense vestitus. Fructus subglobosus,

carnosus, albus, acidulus, aromaticus, ca. 2 cm. diam.; carpella 4, ad margines laxae conjuncta. Semina atro-fusca vel nigra, tuberculata, 3 mm. diam.

New South Wales.—It is represented in the National Herbarium, Sydney, by a wide range of specimens; the following is a selection showing the range of the species in that State. Coff's Harbour, J. L. Boorman; Glenfernle Forest Reserve, J. H. Maiden; Acacia Creek, Killarney, W. Dunn, J. L. Boorman; Dorrigo, W. Heron; Tweed River district, E. Bêche.

Queensland.—It is represented in the Queensland Herbarium by a wide range of specimens. The species extends from the Tweed River to the Blackall Range. The following is a selection:—Roberts Plateau, Lamington National Park, alt. 3,000 ft., C. T. White, 6026 (type: flowering specimens), 20th May, 1929 (small tree common in rain-forest and as secondary growth; leaves light green, flowers cream). Mudgeeraba, Dr. C. P. Ledward (fruits), Aug., 1937. Tambourine Mountain, J. H. Simmonds. Eumundi, Bailey and Simmonds, K. E. Kandler (fruits), Aug., 1931. Blackall Range, C. T. White (flowers), April, 1918, Bailey and Simmonds.

I think there is no doubt this plant is specifically distinct from *A. melicopoides* F.v.M., under which Mueller placed it as a variety. *A. melicopoides* (type) is a very common tree in the rain-forests of North Queensland from the Eungella Range (via Mackay) to Mount Spurgeon (north of Cairns). The chief distinctions are as follows:—

Leaves constantly 3-foliolate, glabrous except in the bud stage.

Petals glabrous outside *A. melicopoides*

Leaves usually 3-foliolate, but sometimes 1 or 2-foliolate, glabrous above, pubescent beneath. Petals densely pubescent on the outer face

A. pubescens

Phebalium gracile sp. nov.

Frutex gracilis, 1 m. altus, ramulis pubescentibus. Folio conferta, linearia vel ovato-linearia, subacuta, plana vel revoluta, utrinque glabra subtus punctis paucis elevatis signata petiolata; petiolus vix 1 mm. longus; lamina 7–8 mm. longa, 2 mm. lata. Flores albi in axillis supremis dispositi; pedicelli 4–5 mm. longi, angulati apicem versus gradatim incrassati, pilis paucis obsiti. Calyx 1.5 mm. diam., 5-lobati, lobis late triangularibus perbrevis. Petala glabra 4 mm. longa, 1 mm. lata. Stamina leviter exserta, filamentis subulatis glabris albis 4.25 mm. longis, antheris roseis vix 1 mm. longis. Pistillum glabrum. Cocci rostrati cum rostro 6 mm. longi.

Mount Greville, alt. 2,000 ft., common on rocky cliffs, C. T. White, No. 9947 (type; buds, flowers, and nearly ripe cocci), March, 1934 (slender-stemmed shrub 1 m. high, flowers white); E. J. Smith (flowers and flower buds), May, 1937. Rev. N. Michael, No. 2074 (sterile material), Oct., 1934.

Among previously described species *P. gracile* has most affinities with *P. diosmeum* A. Juss., which differs in having narrower, usually pubescent leaves with tightly revolute margins, flowers in a dense head with hairy larger calyces.

Phebalium squamulosum Vent. Jard. Malm. t. 102, var. *grandiflorum* var. nov.

Folio ad 6 cm. longa et 1 cm. lata. Flores speciosi, aurei; petala fere 1 cm. longa.

Wyberba, Mrs. N. Gunn (flowering specimens), Sept., 1932 (shrub, flowers bright yellow).

A very distinctive and showy variety, more robust in all parts than the type; the flowers are deeper yellow and twice the size of the normal form. Apart from these distinctions, however, the plant shows no fundamental differences from typical *P. squamulosum* Vent.

Type of the variety in the Queensland Herbarium, Brisbane; co-type material at Royal Botanic Gardens, Kew (Eng.), and Arnold Arboretum, Boston (U.S.A.).

Family CELASTRACEAE.

(W. D. Francis.)

Hedraianthera porphyropetala F.v.M. Frag. Phytog., v. 59.

The genus and species were described from Dallachy's specimens from Rockingham Bay. What appears to be the same species is very common in South Queensland rain-forests such as those at Kin Kin, Eumundi, Mount Cotton, Tambourine Mountain, and Currumbin. In these southern localities it is a shrub or a small tree attaining about 15 feet in height, and is remarkable for the fact that the dark red flowers are often borne in clusters on protuberances arising from the stem and branches. The peduncles and pedicels also are often deep red in colour. In his generic description Mueller describes the filaments as none. In the description of the species he refers to minute glands in the place of the filaments. In several of the specimens in the Queensland Herbarium from both Northern and Southern localities I found filaments to be present and distinct, in some instances attaining 1 mm. in length. The fruit are often ovate or oval, and, in the dry state, measure up to 2.5 cm. long and 1-1.3 cm. across. Northern localities represented in the Queensland Herbarium are Yarrabah, near Cairns, and mountains near Mossman.

Family RHAMNACEAE.

Alphitonia philippinensis Braid.

Cape York Peninsula, D. F. Thomson, No. 49. Sand Dunes, Barron Beach, H. Flecker, No. 1613, 26th April, 1936. This specimen matches those from the Philippine Islands remarkably well.

Cryptandra longistaminea F.v.M.

Moreton District.—Goodna, C. T. White; Beenleigh, J. Shirley; Fort Buchanan, common on cliff faces, altitude 2,300 ft., C. T. White, No. 9308 (flowering specimens), 7th October, 1933 (low shrub about 1 ft. high).

Darling Downs.—Gladfield, C. J. Gwyther; Condamine, C. H. Hartmann; Main Range, C. H. Hartmann; Crow's Nest, Dr. F. H. Kenny; between Dulacca and Miles, L. J. Brass and C. T. White, No. 5 (flowering specimens), 7th September, 1937; Silverwood, C. T. White, No. 1717 (flowering specimens), September, 1922.

From the above records in the Queensland Herbarium, Brisbane, it will be seen that this plant is a very abundant one in the Darling Downs and to a lesser extent in the Moreton district, South-east Queensland. Previously I had some doubt of the determination, as the specimens did not agree with the note in the "Flora Australiensis" and repeated in the "Queensland Flora"—"Disk glabrous or very minutely tomentose." The disk in all cases was very densely woolly tomentose. A portion of the type from Severn River, C. Stuart, No. 148, kindly

loaned me by Mr. F. J. Rae, of the National Herbarium, Melbourne, showed it to have the same densely woolly, hairy disk. All the Queensland specimens quoted above match the type very closely.

Ventilago pubiflora sp. nov.

Frutex scandens, valde ramosus; ramulis novellis subangularibus pubescentibus mox glabris et teretibus; ramis ramulisque flexuosis. Folia petiolata, subcoriacea, glabra, elliptica, utrinque venulosa, margine pauci-dentata in sicco undulata; nervis praecipuis 7-9 in utroque latere; lamina 4.5-8 cm. longa, 2-4 cm. lata; petiolo 0.5-1 cm. longo. Flores in paniculas spiciformes dispositi; rhachi dense tomentosa ad 16 cm. longa; pedicellis 2-3 mm. longis, dense tomentosus. Calyx alte 5-fidus, dense tomentosus; lobis 1.5 mm. longis, intus glabris. Petala parva, glabra, truncata, subcucullata. Stamina petala haud excedentes; filamentis leviter applanatis. Ovarium dense hirsutum. Nux tomentosa, cum ala 2.5 cm. longa.

Wide Bay District.—Widgee, L. D. Pryor.

Burnett District.—Biggenden, C. T. White, No. 7333 (type: advanced flowers and young fruits), 11th October, 1930 (vine growing over trees, common in second growth rain-forest, on the Biggenden-Childers road). The Hummock, near Bundaberg, Rev. N. Michael, No. 1778 (fruiting specimens—a low undershrub). Wallaville, Dr. T. L. Bancroft.

The present species approaches *V. ecorollata* F.v.M. from North Queensland, which differs in its smaller leaves, very short panicles, glabrous or glabrescent flowers, and the absence of petals. It is very similar to *V. neo-caledonica* Schlechter and *V. vitiensis* Seem., both of which differ in having shorter panicles and in the more glabrous nature of inflorescence and flowers.

Family LEGUMINOSAE.

Acacia Cheelii, Blakely.

Between Miles and Chinchilla. L. J. Brass and C. T. White. No. 348 (flowering specimens), 1st October, 1937. As these specimens did not quite agree in all details with the author's description, I forwarded a sheet to Mr. Blakely for comparison with his type in the National Herbarium, Sydney, and he replied, "Not quite typical. The branchlets are non-glaucous, phyllodia straighter, and the spikes more slender than in the typical form. It would be interesting to see what the pods are like. It is the first record for Queensland to my knowledge."

Acacia linifolia Willd. and its allies in Queensland.

Acacia linifolia Willd. is a very common shrub in parts of New South Wales, particularly on the sandstone country about Sydney and the Blue Mountains. Bentham in the "Flora Australiensis" synonymises *Acacia fimbriata* A. Cunn. with *A. linifolia*. The two in their extreme forms, however, are very different; *A. linifolia* is a straggly shrub and *A. fimbriata* a tree with a dense spreading top and rather pendulous branches. It probably finds its greatest development in South-eastern Queensland and North-eastern New South Wales, where it is very common along fresh-water streams. Maiden in his "Forest Flora of New South Wales," Vol. V., p. 29, describes and illustrates both species. In its typical form *A. fimbriata* is characterised by pubescent branchlets, and more especially by the ciliate edge of the

phyllodes. Glabrous and narrow-leaved forms of it occur, however, that connect it with *A. linifolia*. The following notes and key, I hope, will clear up some of the confusion concerning the two species. Domin in *Bibliotheca Botanica* reduces *A. fimbriata* to a variety of *A. prominens* A. Cunn., a fairly common species in New South Wales. I cannot follow him in this. He also names a variety *Whiteana* (?). I have seen what I take to be a co-type of this, and I cannot separate it from ordinary *A. fimbriata* A. Cunn., which is a very widely spread species; like most plants with a wide distribution, it shows considerable variation.

Acacia linifolia Willd. Sp. Pl. IV., 105 (1805).

New South Wales.—It is very common in the Port Jackson district and Blue Mountains. Maiden quotes Bargo (Picton district) as the most southerly locality in the National Herbarium, Sydney, north of Walgan Shale Mine (R. H. Cambage) as the most westerly, and Woodford, Lower Hunter River, as the northernmost.

Queensland.—Blackdown Tableland, Central Queensland (H. G. Simmons), is the only Queensland locality represented in the Queensland Herbarium. There is a very big gap in the known distribution from the Hunter River, New South Wales, to the Blackdown Tableland, Queensland. Domin (*Bibl. Bot.* 89 (III.), 808, 1926) records it from the Darling Downs (C. Moore).

Acacia fimbriata A. Cunn. in G. Don. Gen. Hist. of the Dichlamydeous Plants, Vol. II., p. 406 (1832).

Acacia prominens vars. *fimbriata* and ? *Whiteana* Domin. *Bibl. Bot.* 89 (III.), 810 (1926).

New South Wales.—Maiden records it from Barber's Creek and Nowra (Illawarra district) to the Queensland border, and says it finds its greatest development on the Northern Rivers and to a less extent the Northern Tableland.

Queensland.—It has a wide distribution in Queensland, and finds its greatest development in the south-eastern corner of the State. Our northernmost record in the Queensland Herbarium is Ravenshoe, Ather-ton Tableland (J. Tardent), and our westernmost records are Biggenden (C. T. White, 7304) and Kinleymore (Miss F. H. Beutel), both in the Burnett district.

It is a small tree mostly found along creek sides, but is sometimes frequent as undergrowth in *Eucalyptus* forests.

I have seen what I take to be the co-type of Domin's var. *Whiteana* and hardly think it worthy of a distinguishing name. *A. fimbriata* A. Cunn. as I recognise it is a species with a wide distribution and considerable variation.

Acacia fimbriata A. Cunn. var. *glabra* var. nov.

Tota planta glabra pilis paucis in partibus novellis excepta.

Differs from the type in being glabrous in all parts except for a few hairs on the shoots in the bud stage. Queensland: near Biggenden, Burnett district, W. R. Petrie, No. 18A (type of the variety); slopes of Bunya Mountain, C. T. White, October, 1919.

Acacia fimbriata A. Cunn. var. *perangusta* var. nov.

Tota planta glabra; phyllodia perangusta 4–9 cm. longa, 1–1.5 mm. lata; glandula marginali 0.5–1.8 cm. supra basin.

Differs from the type in its glabrous character, and longer, narrower phyllodes. In the type the marginal gland is usually near the base of the phyllode, in var. *perangusta* it is placed 0.5–1.8 cm. from the base on the upper edge; sometimes a second gland is present further up.

Queensland.—Slack's Creek, Rev. Norman Michael, Nos. 1936 and 2004. Wellington Point, J. Wedd (Oct., 1891). Castra, near Brisbane, very common along creek banks, C. T. White, No. 3554, 7th August, 1927 (type of the variety; flowers in late bud stage); Burrum River, C. T. White, No. 6286 (immature pods), 5th October, 1929 (tree 20 feet high, overhanging the river).

Acacia pubicosta sp. nov.

Arbor parva, 3–5 m. alta; partibus novellis pilis aureis sericeis vestitis (Goy, 319), ramulis junioribus subangularibus canescentibus. Phyllodia linearia, 4.5–8 cm. longa, 2–3.5 mm. lata, utrinque canescentia vel demum glabrescentia costa media excepta, ad apicem apiculo incrassato parvo rostrato superata, ad basin in petiolum brevum incrassata; glandulum marginale obsoletum vel nullum. Racemi in axillis superioribus dispositi, 3–5 cm. longi; rhachi et pedunculis pilis albis vel aureis (Goy, 319) brevibus dense vestitis, pedicellis 3 mm. longis, bractea ad basin pedicelli parva apiculata incrassata persistenti. Sepala ovata, distincta, 1 mm. longa, margine albociliata. Petala glabra sepalis duplo longiora. Legumen lineare 8–10 cm. longum, 0.8–1 cm. latum, undulatum; semina ca. 10, longitudinalia, funiculo leviter plicato ad apicem incrassato.

Burnett District.—Biggenden Bluff, C. T. White, No. 7722 (type: flowering specimens), 17th August, 1931 (small tree, 3–5 m. high, of slender upright growth, flowers white or pale cream); West Mount Morgan, Doris A. Goy, No. 319 (flowering specimens), 18th July, 1938 (small spreading tree, about 15 feet high, leaves silver, flowers pale lemon).

The Mount Morgan specimens possess shorter, more pubescent leaves than the type, the young shoots are markedly golden yellow, a character that persists for some time, and the flowers are a deeper colour. I think there is no doubt, however, that both collections represent the same species.

The affinities of the present species lie with *Acacia fimbriata* A. Cunn.

The following key gives the distinctions between *A. linifolia* Willd., *A. fimbriata* A. Cunn. and its varieties, and *A. pubicosta* C. T. White:—

Phyllodes glabrous	1
Phyllodes ciliate on the margins	2
Phyllodes clothed with grey or silvery hairs on both sides or glabrescent in age except the midrib ..	3
1A. Slender upright shrub of rather spindly growth, phyllodes glabrous 2.4 cm. long and 1.2 mm. broad, central nerve indistinct in the narrower phyllodes, marginal gland indistinct	<i>A. linifolia</i>
1B. Tree with dense spreading top and rather pendulous branches or shrub with ultimate branches drooping, phyllodes 3.4 cm. long, 2.4 mm. broad, midrib distinct, marginal gland prominent 0.5–1 cm. from the base ..	<i>A. fimbriata</i> var. <i>glabra</i>

- 1c. Tree with dense spreading top and drooping branches, phyllodes glabrous 4-9 cm. long, 1-1.5 mm. broad, midrib rather prominent, marginal gland prominent 0.5-1.8 cm. from the base, sometimes a second one present .. *A. fimbriata* var. *perangusta*
2. Tree with dense spreading top and rather pendulous branches or shrub with ultimate branches drooping, branchlets pubescent, phyllodes ciliate on the margin, 2.5 cm. long, 1.5-5 mm. broad, midrib rather prominent, marginal gland prominent, 1-7 mm. from the base .. *A. fimbriata*
3. Small tree of spreading habit or upright growth, young parts canescent or clothed with silky hairs of a golden colour, phyllodia 4.5-8 cm. long, 2-3.5 mm. broad, clothed on both sides with grey or silvery hairs, glabrescent when old except the midrib, marginal gland obsolete or none *A. pubicosta*

Cassia queenslandica sp. nov.

C. Brewsteri F.v.M. var. *sylvestris* F. M. Bailey. Bull. No. 9 (Bot. Bull. 3), Dept. Agric., Brisbane, p. 11 (1891).

Arbor elata, ramulis floriferis tomentosis, leviter, costatis. Folia 6- to 8-juga, ca. 18 cm. longa, rhachis puberula, subangulata, eglandulosa; foliola oblonga, 4-7 cm. longa, 2-2.5 cm. lata, apice obtusa, basi cuneata, utrinque prominule reticulata, supra glabra, subtus pilis albis inspersis vestita; petiolulus dense puberulus 3-4 mm. longus. Racemi 25-35 cm. longi, 50- to 60-flori; rhachis subangulata, dense puberula; bracteae lanceolatae 2 mm. longae mox deciduae; pedicelli graciles 2.5-3 cm. longi, sepala late ovata ca. 6 mm. longa, utrinque minute puberula. Petala flava ovali-oblonga 1.7 cm. longa, in unguem brevem contracta, in sicco valde nervosa. Stamina 3 infima majora, petala aequilonga, filamentis supra medium glandulo magno incrassata; stamina 7 inferiora 3-6 mm. longa; antherae basi leviter bifidae, loculi poris basilaribus dehiscentibus. Ovarium dense pubescens. Legumen pendulum, ca. 35 cm. longum ca. 1 cm. latum, subapplanatum, suturis laevibus continuis, inter suturas torulosum, intus transverse inter semina septatum. Semina transversa, horizontalia (septis parallela).

Kamerunga (now Redlynch), Barron River, E. Cowley. Bloomfield River, W. Poland (pods), Nov., 1902. Mount Molloy, E. Fryer (type: flowers and pods), Sept., 1936.

The above plant was named by F. M. Bailey l.c. and "Queensland Flora," II., 458, as *C. Brewsteri* F.v.M. var. *sylvestris*. He based this opinion on the similarity of his specimens to the plant figured by Rumphius in the "Herbarium Amboinense," 2, 88, t. 22, as *Cassia fistula sylvestris*. Merrill in his interpretation of Rumphius' work refers this to *C. javanica* L., but the Australian plant shows marked differences.

Racemes 5-8 cm. long, 20-30 fld.; bracts ovate, subpersistent; flowers pink and white; pod terete *C. javanica*

Racemes 25-35 cm. long, 50-60 fld.; bracts lanceolate, very soon deciduous; fls. yellow; pod applanate, much constricted transversely between the seeds *C. queenslandica*

Pultenaea paleacea Willd. var. *pauciflora* var. nov.

Differt a forma typica foliis brevioribus, ad 1.2 cm. longis, in sicco supra subconcavis; capitulis multo minoribus, paucifloris; tubo calycis pilis strigosis paucis obsitis, bracteolis and basim affixis.

Wide Bay District.—Near Nikenbah, in damp places in open forest, S. T. Blake (type of the variety: flowering specimens), 5th June, 1932 (small, erect shrub, flowers yellow, keel more or less red). Goodwood, E. W. Bick (leaves only), June, 1915.

Port Curtis District.—Byfield, in damp places in "wallum country," comparatively rare, C. T. White, No. 8173 (nearly finished flowering), 25th September, 1931 (slender shrub, 1.5 m., flowers yellow).

P. paleacea Willd. as at present understood is a very polymorphic species with several named varieties. The present one is very different in appearance from the common Queensland form—var. *robusta* Williamson—and is much more like the typical form that grows in the Port Jackson area, New South Wales. When the group comes to be revised with more material I think it will have to be split up into several distinct species, of which the variety *pauciflora* C. T. White will be one. The Goodwood specimens were seen by H. B. Williamson when preparing his monograph of the genus, and he noted on them—"Flowers may show this to be a form of *P. paleacea* Willd."

Family MYRTACEAE.

Eucalyptus codonocarpa Blakely and McKie.

Lamington National Park, C. T. White, No. 11,119, 22nd October, 1934—common on trachytic hills, in more sheltered places; small gnarled tree up to 5 m. or more high and with a subfibrous bark at the base; in more exposed places a shrub of Mallee-like growth, numerous clean-barked stems from a common stock.

Mount Barney, altitude 3,500–4,000 feet, S. L. Everist, No. 1391, 13th October, 1935.—Small Mallee-like trees common on the upper slopes of the mountain on granophyre cliffs; bark grey, smooth; leaves stiff, coriaceous.

The determinations of these specimens have been kindly verified by Mr. W. F. Blakely, National Herbarium, Sydney, who adds: "The specimens of *Eucalyptus codonocarpa* vary to some extent from the type. The one from Lamington National Park has smaller and more numerous fruits than the typical form, which is usually confined to three in the umbel, while the specimen from Mount Barney has pedicellate fruits. The localities are interesting additions to the range of the species."

Leptospermum attenuatum J. Sm.

Darling Downs district, Q., Wyberba, C. T. White (flowering specimens), 13th October, 1933 (large shrub or small tree, very common; often forms dense thickets as second growth in paddocks).

Smith in his original description (Trans. Linn. Soc., London, Vol. III., p. 262) gave no locality record nor any indication as to where the specimen was obtained. I have not seen his type, but probably the common Port Jackson form represents it. The above specimens from Wyberba are a good match for this.

Leptospermum attenuatum J. Sm. forma.

Leichhardt District.—Ranges near Peak Downs, F.v.Mueller, Nov., 1858. Burnett District.—Biggenden, C. T. White, 7318 (flowering specimens), 13th October, 1930. (Shrub up to 2 m. high, moderately common on rocky places towards the top of Biggenden Bluff, alt. 2,000 feet, flowers white.) Eidsvold, Dr. T. L. Bancroft.

The Peak Downs specimens which I have been able to see through the courtesy of Mr. F. J. Rae have a label in addition to the official one of the National Herbarium (Melb.). This bears no heading, and the handwriting is unknown to me. They are named "*Leptospermum sericatum* Ldl. var. ? *pedunculatum*, ranges near Peak Downs, Dr. M., Nov., '58." The whole group is in need of revision with much more complete material. When better known *L. sericatum* Lindl. may be found a good species. Pieces of bark are included in Bancroft's specimens from Eidsvold, and these show the bark typical of *L. stellatum* Cav., under which Bentham included *L. sericatum* Lindl. I am not absolutely certain that all the specimens quoted above represent the same form.

Leptospermum attenuatum Sm. var. *subsessile* n. var.

Arbor parva, partibus novellis sericeis mox glabris. Flores singuli; pedicelli 1 mm. longi sericei. Calyx 3.5–4 mm. diam., tubo sericeo, lobis albidis, late triangularibus extus tenuiter sericeis, margine ciliolatis. Petala suborbicularia, 5 mm. longa, 4 mm. lata ad basem in unguem brevem contracta. Capsula parva, subsessilis.

Wide Bay District.—Moderately common in sandy soils in mixed xerophytic forest, Traverston, C. T. White, No. 6353 (flowering specimens), 6th October, 1929. (Tree up to 40 feet high and trunk 6 inches diam., with a close fibrous bark and very hard wood. Hervey Bay District.—Rosedale, common on sandy flats, estuarine sediments, L. G., Dovey, No. 988 (fruiting specimens), 26th May, 1937. (Small tree up to 25 feet.)

At first sight the above specimens seem quite distinct from *L. attenuatum* J. Sm., and when the *L. stellatum-attenuatum* series is revised may have to be raised to specific rank. The following are the chief differences:—

Young parts densely silky, the silkiness remaining for some time but gradually disappearing. Flowers single or in pairs. Pedicels 3–4 mm. Calyx tube and lobes both very densely sericeous, lobes triangular. Petals obovate, 4 mm. long, mostly about 2 mm. but sometimes up to 3 mm. diam. Fruiting pedicels 4–5 mm. *L. attenuatum* (typical form)

Young parts sericeous, soon glabrous. Flowers single. Pedicels 1 mm. Calyx tube sericeous, lobes white, broadly triangular, outside thinly sericeous, margins ciliolate. Petals suborbicular, 5 mm. long, 4 mm. wide. Capsule small, subsessile . . . *L. attenuatum* var. *subsessile*

Myrtus dulcis sp. nov. (Plate VI.).

M. tenuifolia Sm. var. *latifolia* Maiden and Betche, Census N.S.W. Plants, p. 143, 1916.

Frutex 1–1.5 m. altus, ramulis junioribus pubescentibus angularibus, vetustioribus glabris, teretibus, cortice in filis deciduo. Folia ovata, ovato-elliptica vel ovato-lanceolata, supra glabra, subtus sericeis albis dense obsita vel glabra, margine leviter recurva; petiolus 1 mm. longus; lamina 1.5–2.5 cm. longa, 2.5–8 mm. lata. Pedicelli singulares, axillares, tenues, pilis sericeis obsiti, 3 mm.–1.1 cm. longi; bracteolae lineares, pilis sericeis paucis obsitae, 1 mm. longae. Calycis tubus dense sericeus, turbinatus, 2 mm. diam.; lobi 5, suborbiculares, extus glabrescentes, intus dense tomentosi. Petala suborbicularia, 4 mm. diam., extus dense tomentosa, intus glabra. Stamina numerosa, filamentis glabris tenuibus

leviter applanatis, ad 7 mm. longis. Ovarium ad apicem pubescens, stylo glabro. Bacca alba, nigro-punctata, dulcis; semina straminea nitida, sublenticularia 2 mm. diam.

This shrub is very common as undergrowth in the sandy forest lands of North-eastern New South Wales and South-eastern Queensland. Sometimes it grows in heavier forests a few miles inland, and most of the latter specimens seen by me have been of a more glabrescent character. The plant is characterised by its white berries marked with small blackish dots. It is familiarly known as Midgen Berry. It is represented in the Queensland Herbarium by a number of localities from Byron Bay in New South Wales to Fraser Island in Queensland. The following is a selection:—

New South Wales.—Byron Bay, E. Cheel; Cudgen, C. T. White, No. 9666 (very common on sandy hillsides, low shrub 1 m. high); Tweed Heads, Dr. F. H. Kenny.

Queensland.—Palm Beach, between Currumbin and Tallebudgera Creeks, C. T. White, No. 6506 (type, flowering specimens), Nov., 1929 (spreading shrub 1 m., leaves light green above, whitish beneath, flowers white); (fruiting specimens) sine number, April, 1928, shrub 1 m., common on sandy land, fruit white with small black dots, sickly sweet to taste); Pimpama, J. Shirley; Stradbroke Island, C. T. White; Moreton Island, C. T. White; Bribie Island, C. T. White; Mooloolah River, C. T. White; Eumundi, J. H. Simmonds; Cootharaba, W. D. Francis; Noosa Heads, C. T. White; Fraser Island, C. E. Hubbard, No. 4656 (shrub with spreading branches, leaves green above, grey-green below, young growth reddish, common in Eucalyptus forest on sandy slopes).

This plant is certainly very closely allied to *M. tenuifolia* Sm., but differs in its constantly broader, differently shaped leaves and somewhat larger flowers. In their original description Maiden and Betcher state—“Bentham mentions the two forms of *M. tenuifolia* in the Flora Australiensis, but did not distinguish them as named varieties. The form common about Port Jackson and the Blue Mountains has from linear to very narrow-lanceolate leaves, and is a stiff, upright-growing, small shrub, generally found in the rocky beds of creeks; the variety *latifolia* has lanceolate to broad-lanceolate leaves, and is a spreading shrub generally found as undergrowth in the brush-forests of Northern New South Wales. Bentham knew the two forms only from herbarium specimens, and could not know their marked difference in habit.”

Some time ago I sent specimens to the National Herbarium, Sydney, where they were examined by Mr. Cheel, who remarked that he thought the plant worthy of specific rank. Though it presents considerable variation in width of leaf and degree of pubescence, it can always be distinguished at a glance from typical *M. tenuifolia* Sm. It has also a different habitat and geographical range.

The accompanying plate shows *Myrtus dulcis* C. T. White from two localities compared with *M. tenuifolia* Sm. from the Port Jackson district, New South Wales.

Myrtus pubiflora sp. nov.

Frutex elatus, ramulis junioribus pubescentibus. Folia ovata vel ovato-lanceolata, apice acuminata, lamina 3–5 cm. longa, 1.5–2.5 cm. lata, petiolo 2 mm. longo, nervis lateralibus et vena intramarginali in sicco utrinque prominulis. Flores axillares singuli vel bini, pedicellis

2-4 mm. longis, pubescentibus. Calycis tubus dense hirsutus, subgloboseus, 2-3 mm. diam., lobis 4, utrinque sericeo-hirsutis, angustotriangularibus, 5 mm. longis. Petala 4, orbiculari-ovata, extus tomentosa intus glabra, 4 mm. diam. Stamina numerosa 4 mm. longa. Ovarium 2-loculare. Bacca 8 mm. diam.

Strathdickie, near Proserpine, Rev. N. Michael, No. 1476 (type: flowering specimens), 1497 (fruiting specimens). Strathdickie North, Ken Macpherson, No. 81 (flowering specimens), Aug., 1936. (Mr. Macpherson's specimens were received from the Herbarium, North Queensland Naturalists' Club, under No. 2742.)

Family OENOTHERACEAE.

Ludwigia prostrata Roxb.

Mossman, North Queensland, H. Flecker (flowering and fruiting specimens), 9th August, 1936, No. 2132. Erect herb, yellow flowers, growing in alluvial soil on bank of Mossman River. A plant with a wide range in the Indo-Malayan area, probably naturalised in North Queensland. Det. L. S. Smith.

Family RUBIACEAE.

Plectronia odorata (Forst.) Hillebrand, Fl.

Hawaiian Island, 175 (1888), var. *reticulata* var. nov. Folia suborbicularia vel late obovata ad 9 cm. longa et 6.5 cm. lata, breviter petiolata, supra nitida, subtus pallidiora et opaca, utrinque reticulata.

Thursday Island (E. Cowley, No. 10, type of the variety, flowering specimens); No. 29 (fruiting specimens; small tree, fruit black). A very distinctive-looking plant; unfortunately the flowers are too badly destroyed by insects to describe, but when better known may have to be raised to specific rank. The specimens were labelled by F. M. Bailey as a "form of *P. odorata*." They were seen by W. D. Francis when working at the Australian species of *Plectronia* at Kew, and he noted on the sheets "*Canthium* species aff. *C. odoratum*."

Spermacoce hispida L.

Cairns, Dr. H. Flecker, No. 1434, 21 February, 1936. Recumbent herb, growing near Esplanade, stems deep red, flowers white, pale mauve when faded.

Wendlandia connata sp. nov.

Arbor mediocris, ramulis junioribus saepe in sicco valde complanatis. Folia subcoriacea late lanceolata apice obtuse acuminata, basi cuneata utrinque glabra costa et nervis primariis subtus excepta; nervi laterales subtus prominuli, in axillis foveolati; venae transversae immersae, sub lente vix manifestae; lamina 9-16 cm. longa, 3.5-6.5 cm. lata; petiolus 2-3 cm. longus; stipulae anguste triangulares in ramulis floriferis parviores, mox deciduae. Panicula terminalis, pedunculis ramulis pedicellisque pilis canescentibus obsitis, pedunculo communi 4-6 cm. longo. Flores primum albi deinde rosei; pedicelli 1.5-2 mm. pilis albis strigosis obsiti, bracteolis glabris 1-1.25 mm. longis. Calycis tubus subcylindricus, 3 mm. longus, pilis albis strigosis paucis obsitus; lobi 5, glabri, 2 mm. longi, in parte inferiore 2 mm. lati. Corolla glabra; tubus 3 mm. longus lobi oblongi, 3 mm. longi. Stamina exserta; filamenta in tubum connata, 4 mm. longa, ad basem tubi affixa, in parte superiore (apicem versus) pilis albis longis obsita; antherae basifixae,

3 mm. longae. Stylus 8.5 mm. longus; stigma capitata. Capsula subcylindrica, crustacea, 2-locularis, polysperma; sperma parva, testa rugoso-reticulata.

Mt. Spurgeon, in rain forest along creek bank, C. T. White No. 10663 (type: flowering specimens) Sept. 1936 (medium tree, flowers at first white, later pink, borne in great profusion). A. L. Merrotsy No. 35 (fruiting specimens) Feb. 1922 (shrub about 6 ft. high).

The specific name has reference to the stamens being united in a tube which is affixed to the corolla. On this account I had at first thought to make the species the type of a new genus, but the other characters are so much those of *Wendlandia* that I think it better to leave it in that genus.

Wendlandia urceolata sp. nov.

Arbor mediocris, ramulis novellis complanatis. Folia coriacea, late lanceolata vel elliptica, apice obtuse acuminata, basi cuneata, utrinque glabra, domatia in axillis nervorum subtus excepta; nervi praecipui subtus valde elevati; venae transversae sub lente prominulae; lamina 9-16 cm. longa, 5-7 cm. lata; petiolus 2.5-3 cm. longus. Panícula terminalis, pedunculis ramulisque roseis (Kajewski), subcomplanatis, in medio pubescentibus, lateribus leviter incrassatis, pedunculo communi 2-3 cm. longo. Flores sessiles, glabri, roseo-virides (Kajewski). Calyx: tubus 2.5 mm. longus; limbus 5-partitus, lobis late triangularibus vix 0.5 mm. longis. Corolla urceolata; tubus 1.5 cm. longus, lobi 5, parvi rotundi, apicem versus incrassati et intus infra apicem ipsum inflexi. Stamina 2 mm. longa, filamentis perbrevis, applanatis ad basem corollae affixis. Stylus cylindricus, 2 mm. longus, leviter striatus. Capsula subcylindrica, crustacea, 6 mm. longa.

Foothills of Mt. Bartle Frere, alt. 800 m., common in poor rain forest, S. F. Kajewski, No. 1349 (flowering specimens and a few old seed capsules) 1st October, 1936 (specimens gathered off small tree about 15 m. high, bark medium grey, light pink-brown when cut, no particular odour; young stems (branches of the panicle) bearing buds bright pink, buds pink-green.

Remarkable on account of its urceolate corolla, the lobes inflexed inside below the rounded apex. Though they have the appearance, as remarked by Mr. Kajewski, of being unopened, I think the flowers fully developed.

Family COMPOSITAE.

Centipeda thespidioides F. v. M.

Maranoa District.—St. George, J. Wedd. Nindigully, in red soil, R. H. Roe, July 1937.

Warrego District.—Murweh, R. Cameron, September 1916. Wedd's specimens were recorded by F. M. Bailey as *Coleocoma centaurea* F. v. M. This latter species should be deleted from the Queensland Flora until authentic specimens have been collected.

Cosmos caudatus L.

Kuranda, North Queensland. Dr. H. Flecker, No. 2046 (flowering and fruiting specimens, 19th July, 1936). Common weed 4 ft. high, pink flowers. Acclimatised in the Barron River Valley.

A native of Tropical America, but now widely spread over the tropics of the world.

Pterocaulon spheranthoides DC.

Received from Mr. T. H. Dowling, Oban Station, Mount Isa, 23rd December, 1935. (Determination by D. A. Goy.)

Helichrysum vagans sp. nov.

Frutex vagans virgatus, ramulis novellis albo-tomentosis, adultis glabris sulcato-striatis valde angulatis, angulis plerumque 5. Folia lineari-lanceolata supra glabra subtus albo-tomentosa vel rarius glabrescentia, 2.5-4 cm. longa, 4-5 mm. lata, trinervia, nervis lateralibus saepe indistinctis sed sub lente plerumque visibilibus. Capitula parva in paniculas compactas (1-2.5 cm. diam) terminales disposita. Involucra late campanulata 3 mm. longa 3 mm. lata, bracteis numerosis scariosis. Flosculi ca. 12. Achenia glabra cylindracea, pappi setis 2 mm. longis tenuiter barbellulatis ad basim coalitis.

Queensland.—Lamington National Park, Macpherson Range, alt. 1,000 m., C. T. White Feb. 1920 (type; scrambling scrub 2 m. high, common on edge of rain-forest). Springbrook C. T. White No. 8226, October 1931 (Shrub of straggling habit, 2 m. high, common on edge of rain-forest).

New South Wales.—Murwillumbah, W. Forsayth (ex Nat. Herb. Sydney). Mount Warning, L. J. Brass and C. T. White Jan. 1938 (straggling shrub common on edge of rain-forest).

This shrub is very common on the higher parts of the Macpherson Range and its offshoots in south-eastern Queensland. Some time ago I sent specimens to the National Herbarium, Botanic Gardens, Sydney, where they were reported on by Mr. W. F. Blakely who said that he recognised the plant at once as one that was in the *H. Beckleri* box in that Herbarium. He had put it aside meaning to work out the determination, but having greater interest in other plants he had not bothered to draw up a description of it as a new species. The species is most closely allied to *H. Beckleri* F. v.M. which is also a very common species in many of the mountain ranges of south-eastern Queensland and northern New South Wales. In their habits the two species are very distinct, *H. Beckleri* being an upright growing shrub and *H. vagans* a shrub of very straggling habit mostly growing on the edge of rain-forest. *H. Beckleri* is very common as secondary growth in rain-forest clearings in mountain localities. In this stage it is an intricately branched shrub with very small leaves green on the upper surface and clothed with white cottony wool on the under. *H. vagans* is not so common as secondary growth but is frequently seen on the edge of new clearings. It is a straggling shrub in its younger stages with leaves up to 6 cm. in length. The two species may be characterised as follows:—

Upright shrub. Juvenile leaves very small, 2-5 mm. long. Branchlets terete or nearly so, usually tomentose. Leaves mostly about 1.5 cm. long and 4 mm. wide	<i>H. Beckleri</i>
Shrub of straggling habit. Juvenile leaves narrow-lanceolate, up to 6 cm. long. Branchlets very angular, usually quite glabrous or nearly so in the adult stage. Leaves somewhat variable, mostly 3-4 cm. long and 4-5 mm. broad	<i>H. vagans</i>

Family MYRSINACEAE.

Ardisia fasciculata sp. nov. (Subgenus *Tinus*.)

Arbor parva, ramulis robustis. Folia coriacea, late lanceolata vel anguste obovata, basi acuta, apice subobtusata, nervis lateralibus in sicco utrinque visibilibus vix sed prominulis; petiolus crassiusculus teres 1-2

cm. longus; lamina 7–10 cm. longa, 3–4 cm. lata. Inflorescentiae 3–6-florae, glabrae, in fasciculos axillares dispositae; pedicellis crassis angularibus ca. 7 mm. longis. Calyx late campanulatus, 3 mm. diam., lobis suborbicularibus atropunctatis. Corollae lobi brevi, alte connati, crassi (in albastro modo visi). Stamina corolla aequilonga, antheris anguste ovatis, filamentis brevis applanatis, ovarium glabrum, conicum, stylo brevissimo.

Mt. Spurgeon, C. T. White No. 10673 (flowering specimens), Sept. 1936 (small tree in rain-forest).

A very distinctive species. Unfortunately I was able to get only very limited material. The flowers available are a few in the bud stage, and others with the corollas shed. From the appearance of the bud one gets the impression that they may fall off in a calyptrate fashion; this can only be proved, however, by observation in the field or by the collection of more material. Among Australian species it is most closely allied to *A. brevipedata* F. v. M. and *A. pachyrachis* F. v. M., which are both distinct in the pedunculate inflorescence with more slender pedicels and fewer flowers.

Family SAPOTACEAE.

Sideroxylon euphlebiu F. v. M. var. *cryptophlebiu* var. nov.

Folia coriacea, supra in sicco opaca, nervis secundariis et tertiariis in foliis novellis supra leviter impressis in foliis adultis paene invisibilibus, subtus visibilibus sed vix prominulis. Flores solitarii vel bini in axillis foliorum.

Mt. Spurgeon, C. T. White No. 10655 (flowering specimens) Sept. 1936. (Medium tree, on hillsides in rather dry rain-forest; very hard wood.)

I had drawn up a description of this tree as a new species, but the leaf-shape, the robust branchlets and the ferruginous tomentum of the young shoots are so much the characters typical of *S. euphlebiu* F. v. M. that I felt that at most it could only be regarded as a variety. *S. euphlebiu* is represented by several sheets in the Queensland Herbarium but only in fruit, and flowers were imperfectly known to Mueller. The flowers in this variety are solitary or in pairs not in clusters as described by Mueller, but this character may be variable.

Family SYMPLOCACEAE.

Symplocos ampulliformis sp. nov.

Arbor parva, ramulis junioribus subangularibus. Folia late lanceolata, in sicco subchartacea, apice acuminata, basi cuneata, margine leviter recurva undulata; costa media supra impressa, subtus elevata; nervi laterales distantes, utrinque 4–5, venis et venulis prominulis; petiolus 0.5–1 cm. longus; lamina 6–12 cm. longus, 2.5–5 cm. latus. Inflorescentiae (simplices vel ad basem ramosae?), in axillis inferioribus vel in axillis defoliatis infra folia dispositae; *rhachis 0.5–1 cm. longa. Fructus ampulliformis, 1–1.2 cm. longus, in parte inferiore 5–6 mm. diam.

Mount Spurgeon, common in rain-forest, C. T. White, No. 10581 (fruiting specimens), September, 1936 (small tree, fruits green).

* The specimens are in fruit only, and it is difficult to say whether the racemes are simple or bear very short branches simulating pedicels. When a longer branch is borne this is situated at the very base, and has the appearance of a second slightly shorter raceme from the axil.

In the absence of flowers it is difficult to assign this species to its correct place in the genus. I should say it belongs to the Section Bobua (DC.) Brand, and its closest affinity among Australian species is with *S. Thwaitesii* F.v.M. It is still closer to *S. aneityensis* Brand, but differs from both. The racemes are only as long as or little longer than the petioles and are borne in the lower leaf-axils and usually below all the leaves, not crowded in the upper axils and often pseudo-terminal as in the two species mentioned.

Symplocos Stawelii F. v. Muell. Fragm. Phytogr. Austr. v. 60. (1865) var. *montana* var. nov.

Folia parva (3.5–6.5 cm. longa, 1–2 cm. lata). Inflorescentia valde reducta 3–7-flora, spicata, pseudo-spicata vel ad basem breviter ramosa.

Mount Bartle Frere, H. Flecker, No. 857 (flowers), 7th October, 1935.

At first glance one would take this to be a distinct species, but on closer examination I feel it is only a reduced mountain form of *S. Stawelii* F. v. M. Both leaves and flowers dry a deep yellow. The inflorescence is very much reduced and is either a simple spike or with one or two short branches at the base or with 1–2-flowered very short branches in the lower part. The branches in this case may easily be mistaken for pedicels like the very short secondary branches in the compound inflorescence of *S. Stawelii* F. v. M.

Family OLEACEAE.

Linociera Sleumeri comb. nov.

L. coriacea C. T. White, Proc. Roy. Soc. Queens., Vol. 47, 20, 1936.

Dr. H. Sleumer, of the Botanic Gardens and Museum, Berlin, writes me that there is already a valid name, *L. coriacea* Vidal Rev. Pl. Vasc. Filip. (1886), 181. I have pleasure in naming the plant now after Dr. Sleumer, who has helped me considerably with Queensland and Pacific Islands Oleaceae and other plants.

Family SOLANACEAE.

Solanum dimorphispinum sp. nov.

Frutex 3–4 m. altus; rami pilis stellatis dense tomentosi, aculeis rectis vel recurvis 2–3 mm. longis a latere compressis armati; internodia 7–9 cm. longa. Folia plerumque ad nodos bina; petioli 2–2.5 cm. longi, sicut rami pilis stellatis tomentosi et aculeis muniti sed aculeis tenuioribus rectis et ad 4 mm. longis; lamina elliptica repanda vel raro sub-integra, apice acuta 12–18 cm. longa, 5.5–7 cm. lata, supra glabra inermis vel aculeis rectis ad 8 mm. longis paucis armata, subtus breviter et dense albo-tomentosa, in costa media basem versus aculeis rectis 1–2 armata. Inflorescentia simpliciter racemosa, inermis ca. 7-flora; rhachis ad 2 cm. longa dense stellato-tomentosa; pedicelli apicem versus racemi conferta, ad 1.5 cm. longi, tenues, apicem versus incrassati sicut rachis dense stellato-pubescentes. Calyx campanulatus, extus dense stellato-tomentosus, 5-costatus, intus glaber, 1 cm. diam. Corolla violacea, campanulato-stellata, ca. 2 cm. diam., in lobos lanceolatos 5 divisa; lobi extus dense tomentosi intus in parte superiore pilis stellatis paucis obsiti; membranea inter petala glabra. Stamina glabra; filamenta brevissima, applanata; antherae 6 mm. longae. Ovarium pilis stellatis crebis obsitum.

Mount Spurgeon, common along tracks and on the edge of clearings in rain-forest, C. T. White, No. 10619 (flowering specimens), September, 1936 (large straggling bushes, 3-4 m. high, flowers mauve).

Very close to *S. hamulosum* C. T. White, but can be distinguished as follows:—

Prickles all recurved and stout (except on the upper surface of the leaves); leaves 8-11 cm. long, 4-5 cm. broad, densely clothed with short stellate hairs above, paler and densely and loosely stellate-tomentose beneath	<i>S. hamulosum.</i>
Prickles slender and straight on leaves and young stems, recurved on older stems. Leaves 12-18 cm. long, 5-5-7 cm. broad, glabrous above, white and densely and very shortly tomentose beneath	<i>S. dimorphispinum</i>

Family SCROPHULARIACEAE.

Linaria Elatine Miller. Pointed Toad Flax.

Kangaroo Point, Brisbane. L. S. Smith, No. 372 (flowering specimens), 5th December, 1938.

A native of Europe, naturalised in the Southern States, but not previously recorded for Queensland.

Family ACANTHACEAE.

Graptophyllum Thorogoodii sp. nov.

Frutex intricate ramosus; ramulis spinosis, spinis tenuibus ca. 1 cm. longis; ramulis junioribus angulatis, breviter pubescentibus. Folia perbreviter petiolata, 1.5-2.5 cm. longa, 0.5-1 cm. lata, lanceolata vel elliptico-lanceolata, margine remote dentata. Flores 3-3.7 cm. longi, axillares, solitarii; pedicello tenui 6-10 mm. longo; calycis lobis linearibus, acutis, 6-8 mm. longis; corollae tubo 1.8-2.5 cm. longo; limbo bilabiato, lobis duobis superioribus (labio superiore) 10 mm. longis, lobis tribus inferioribus (labio inferiore) 12 mm. longis. Stamina exserta, stylo subaequalibus. Ovarium 5 mm. longo; stylo tenui, stigmata minute bilobo.

Kelsey Creek, near Proserpine, H. Thorogood (No. 1, received March, 1937), flowering specimens (shrub, grows in a thick mass almost impossible to penetrate; limbs often take root where they touch the ground; main flowering time seems to be May, June, and July.)

The present species has all the vegetative characters of *G. spinigerum* F. v. M., but the flowers in that species are several on very short pedicels in the axils of the leaves, not solitary on long, slender pedicels, and the flowers are at most only half the size of the new species. When better known *G. spinigerum* may be found to possess more than one type of inflorescence and flower, and the present species may have to be reduced to a synonym or at most to a variety.

Type at Brisbane.

Family PLANTAGINACEAE.

Plantago coronopus Linn.

Manly, Moreton Bay. C. T. White, No. 10740, June, 1936.

Common as a weed along the esplanade in made-up land.

These specimens have been determined for me at the Royal Botanic Gardens, Kew, and have been identified as the subspecies *commutata* (Guss.) Pilger.

Family CHENOPODIACEAE.

Atriplex elachophyllum F. v. M.

Gregory North District: Glenormiston. A. C. Boyle, 28th January, 1935.

New for Queensland. (Determination by S. L. Everist.)

Kochia ciliata F. v. Muell. Rep. Babb. Exped. 20.

Maranoa District.—Noondoo Station, via Dirranbandi, S. L. Everist, No. 767, 14th December, 1934; small herb from a woody base, not common. Between Warkon and Surat, B. A. Smith, No. 13; Nindigully, R. Roe, No. 13, July, 1937. In hard red soil. Det. W. D. Francis. Not previously recorded for Queensland.

The Noondoo specimens possessed a slight thickening of the upper rim of the perianth, and it was thought at first that it might be *K. coronata* J. M. Black. Specimens of both the Noondoo plant and the Surat plant were forwarded to Mr. J. M. Black, who replied that Mr. Smith's specimen was typical *K. ciliata*, and, though the Noondoo specimen showed a slight thickening of the upper rim of the perianth, he could find nothing like the conspicuous crown possessed by his *K. coronata*, and he would place it under *K. ciliata*. Both species are well figured by Mr. Black in his "Additions to the Flora of South Australia, No. 11," in Transactions and Proceedings of the Royal Society of South Australia, Vol. 41, 1917. Both illustrations are reproduced in his Handbook of the Flora of South Australia.

Kochia coronata J. M. Black in Trans. Roy. Soc. Sth. Aus. XLI., 43. Pl. IX. (1917).

Currawilla, J. Mann. Not previously recorded for Queensland. (Determination by W. D. Francis.)

Blackall.—S. L. Everist, February, 1938. Very common on edge of claypans. (Determination by S. L. Everist.))

Family LAURACEAE.

Endiandra rubescens Blume ex Miq. Plantae Jungh. 176.*E. montana* C. T. White Contr. Arn. Arb. IV. 36 (1933)).

Mount Alexander; alt. 1,300 m. Common in poor scrub on top of the mountain. S.F. Kajewski No. 1497 (flowering and fruiting specimens), 18th Dec., 1929. (Small, twisted, and gnarled tree up to 6 m. high; flowers cream; fruit yellow when ripe, slightly flattened on both sides.)

When looking through some non-Australian specimens of Lauraceae I was struck with the similarity of some specimens from Buitenzorg, labelled *Endiandra variabilis* Meissner (Winckel No. 1792B) and determined by Dr. Camerloher with my recently described *E. montana* from North Queensland. As I could not find the name *E. variabilis* in literature, I wrote to Buitenzorg and got a reply from Dr. Van Slooten as follows:—

"*Endiandra variabilis* Meissner was given (on the label only) by Dr. Camerloher (who studied only the genus *Cinnamomum*) for *Dictyodaphe variabilis* Meissner, and not published by him. In the Buitenzorg Herbarium this species is represented by one specimen only (from Java), a duplicate of which you possess."

The Queensland specimens seem to be an exact match for the Javanese, and I think there is no doubt about the identity of the two species. As most botanists regard *E. variabilis* as only a synonym of *E. rubescens* Blume, the Australian plant is now recorded as above.

Family PROTEACEAE.

Orites racemosa sp. nov.

Arbor elata, partibus novellis ferrugineo-pubescentibus mox glabris; ramulis robustis. Folia lanceolata, apice acuta, basin versus in petiolum gradatim angustata, coriacea, cum petiolo 8–15 cm. longa, 2–3 cm. lata; costa media supra leviter impressa, subtus leviter elevata, nervis secundariis plerumque indistinctis. Racemi axillares ca. 9-flori, 2.5–3 cm. longi; rhachibus pedicellis bracteisque pubescentibus; pedicellis 2.5–3 mm. longis; bracteis linearibus 2 mm. longis. Petala linearia, tenuiter pubescentia, 4 mm. longa, 1.75 mm. lata (vix matura in alabastro modo visa). Stamina libera vel ad basin petalorum affixa; filamentis appianatis 1.75 mm. longis, in connectivum latum inter antherae loculos productis; antheris 1.75 mm. longis. Ovarium in parte inferiori pilis longis obsitum. Folliculus sublignosus, applanatus, margine incrassatus, 4.5–5.5 cm. longus, apice rostratus, basin versus in stipitem angustatus; seminibus 2, compressis, ala membranacea alba cincta; ala ipsa ad apicem profunde emarginata; placenta compressa lignoso-spongiosa.

Mount Spurgeon, C. T. White, 10621 (nearly mature flowers and seed capsules—mostly open), Sept., 1936 (large tree in rain-forest).

Distinguished from all previously described species by its flowers single in the axils and on distinct pedicels. The flowers, though only collected in the bud stage, were nearly mature. Type in Queensland Herbarium, Brisbane. Co-type specimens at Arnold Arboretum, U.S.A., and Royal Botanic Gardens, Kew (Eng.).

Family EUPHORBIACEAE.

Actephila Mearsii sp. nov.

Arbor ad 20 m. alta, ramulis robustis. Folia supra atroviridia, subtus pallidiora, margine subremote crenato-dentata, petiolo 2 cm. longo, apicem versus incrassato; lamina 7–14 cm. longa, 2.5–5 cm. lata; nervis lateralibus tenuibus in utroque latere 7–8, in sicco utrinque visibilibus sed subtus prominentioribus. Pedicelli (in fructu modo visi) 2.5–5 cm. longi, apicem versus gradatim incrassati, recti vel curvati saepe valde recurvati. Sepala non-visa. Petala (vel glandula petaloidea) 5, persistentes crassa dura 1.5 mm. longa. Capsula globosa vel ovoidea 4 cm. diam., pericarpio lignoso, 1.5 mm. crasso, extus griseo, leviter ruguloso, intus stramineo; endocarpi cartilagineo; semina ovoidea arillo spongioso-pulposo rubro involuta cum arillo ca. 2.5 cm. longa, 2 cm. lata; sine arillo ca. 2 cm. longa, 1.5 cm. lata; testa cartilaginea, straminea.

Millaa Millaa, J. E. Mears (leaves and unripe fruits), Dec., 1937 (type: ripe fruits and seeds), Feb., 1938. Gadgarra, alt. 800 m., common in rain-forest, S. F. Kajewski, No. 1139 (empty seed capsules), 24th July, 1929 (medium-sized tree, up to 20 m. high, leaves dark green).

Mr. Mears wrote under date 18th December, 1937, as follows:—
“I am sending you some unripe nuts, and will send on some more as soon as they are ripe (early February). They are soft-shelled, very sweet and palatable, but of course I should be afraid to eat them, but

the opossums get them very quickly; very prolific, it's the only patch I know of on the Tableland." And later, under date 11th February, 1938: "Herewith please find nuts as you desired—the best I could get. The birds eat them as fast as they ripen."

It is very distinct from previously described Queensland species, and is a notable plant. It is most closely allied to *A. grandifolia* Baill., which differs in its entire or nearly entire leaves on shorter petioles, and much smaller seed capsules on shorter pedicels. I have not seen an arillus developed in the seed of *Actephila* before, but it is a feature that would be hard to observe on a dried seed.

Beyeria viscosa Miq. var. *obovata* var. nov.

Frutex 2 m. altus; partibus novellis viscosis; ramulis junioribus angulatis, complanatis. Folia plana, obovata vel spathulato-lineararia, apice obtusa vel leviter emarginata, basi cuneata in petiolum gradatim angustata; lamina 3–4 cm. longa 1–2 cm. lata.

Torrens Creek, C. T. White, 8731 (female flowers and capsules), 19th March, 1933 (shrub 2 m., growing on rocky sandstone hills).

I had at first drawn up a description of this as a distinct species, for the general appearance is different from that of typical *B. viscosa* and its described varieties. Apart from the broader leaves, however, and the total lack of viscosity except in the very young leaf-buds, it shows no essential differences.

Type of the variety at Queensland Herbarium, Brisbane. Co-type material at Royal Botanic Gardens, Kew (Eng.), and Arnold Arboretum, Boston (U.S.A.).

Bertya oleifolia Planch. in Hook. Lond. Journ. Bot., IV., 473, tab. XVI., fig. 1, 1845, var. *glabrescens* var. nov.

Folia demum supra glabra, lineari-lanceolata 4–7.5 cm. longa, 2–4 mm. lata. Bracteae stellato-tomentosae. Flores glabri. Ovarium glabrum.

Eidsvold, Dr. T. L. Bancroft (type of the variety); Copperfield, G. Smith.

A rather distinctive plant which, when better known, may have to be raised to specific rank. There are two very small specimens from Copperfield; one is an exact match for the Eidsvold plant, the other is the typical form with densely hairy ovary.

Euphorbia hypericifolia L.

Trinity Beach, in sandy soil.

H. Flecker, 26th March, 1937 (North Queensland Naturalists' Club, No. 2942).

A common tropical species, not previously recorded for Queensland.

Family LILIACEAE.

Rhipogonum papuanum C. T. White, Proc. Roy. Soc. Queens., Vol. 34, p. 19, 1923.

R. album, R.Br. var. *leptostachya* Benth. Fl. Austr., Vol. VII., p. 9, 1878.

Papua Bet. Kubunah and Fofofoto, C. T. White, No. 687, August, 1918.



Left Bay, N. S. Wales. 3. M.
tenuifolia S.



Myrtus dulcis C. T. White and *M. tenuifolia* Sm.

Left to Right.—1. *M. dulcis* C. T. W., Eumundi, Q., 2. *M. dulcis* C. T. W., Byron Bay, N. S. Wales. 3. *M. tenuifolia* Sm., Mossman, Port Jackson, N. S. Wales.

Queensland.—Rockingham Bay, J. Dallachy. Whelanian Pools, Bellenden Ker Range, F. M. Bailey. Atherton, C. T. White. Tarzali, C. T. White. Malanda, C. T. White.

Family GRAMINEAE.

Hierochloe rariflora Hook.

Lamington National Park, common in heavy Eucalyptus and Casuarina forest, C. T. White, No. 11,163, 22nd October, 1934.

Lagurus ovatus L., Hare's Tail. Farm School, St. Lucia, Brisbane River. C. T. White, 11160, 30th November, 1934, subspontaneous.

A native of Southern Europe, cultivated as an ornamental grass. It is completely naturalised in the Southern States.

Neurachne Muelleri Hackel.

Frazerborough, Jundah, E. M. Bowman.

Neurachne Munroi, F. v. Muell.

Wittenburra Station, 36 miles south of Eulo. S. L. Everist and L. S. Smith, No. 64, 7th January, 1937. Fairly common on hillside.

I am indebted to the Director and Government Botanist (Mr. F. J. Rae), Botanic Gardens and National Herbarium, Melbourne, for the determination of the above species of *Neurachne*. Mr. Bowman describes *N. Muelleri* as an excellent fodder.

Themeda quadrivalvis O. Ktze.

A native of India, naturalised in Fiji and not previously recorded for Australia. Collected at Habana, 14 miles north-east of Mackay, September, 1935, by J. P. Kahler, who makes the following remarks:—

“Grows in dense patches, not very common. In paddocks cattle keep it down. Tall, up to 5 ft.”
(Determination by S. L. Everist.)



White, C. T. 1939. "Contributions to the Queensland Flora, No. 6." *The Proceedings of the Royal Society of Queensland* 50, 66–87.

<https://doi.org/10.5962/p.351649>.

View This Item Online: <https://www.biodiversitylibrary.org/item/192520>

DOI: <https://doi.org/10.5962/p.351649>

Permalink: <https://www.biodiversitylibrary.org/partpdf/351649>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at

<https://www.biodiversitylibrary.org>.