CONTRIBUTIONS TO THE QUEENSLAND FLORA, No. 8

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(Plates III. and IV.)

The present paper contains additions to the flora of Queensland since the publication of the previous Contributions (these Proceedings Vol. 53, pp. 201-228).

Family Ranunculaceae.

Ranunculus sceleratus *L.* Sp. Pl. 551 (1753). Celery Ranunculus.

Moreton District: Gold Creek near Brisbane, in wet place associated with *Triglochin* and *Samolus, M. S. Clemens* (flowers) 18-5-1943.

A native of the Northern Hemisphere (North America, Europe and Asia) naturalised in the southern States of Australia but not previously recorded for Queensland.

Family Rutaceae.

Eriostemon lanceolatus *Gaertn. f.* de Fruct. iii. 154, t. 210 (1807).

E. salicifolius Smith in Rees Cyclop. xiii. No. 1.

Darling Downs District: Pyramid Mt., about 30 miles from Stanthorpe, *H. Jarvis* (flowers) 6-11-1921. Wide Bay District: Fraser Island, *Miss S. Lovell* (fruits) 7-1-1894; Tin Can Bay, very common in restricted area in very sandy soil, *C. T. White* 12284 (flowers) 12-9-1943 (shrub 1–1.5 m., slender upright growth, flowers mauve).

Three definite localities for this species, previously admitted into the Queensland flora by Mueller and Bailey without definite locality records. It is a very common wild-flower of the Hawkesbury sandstone, New South Wales, and one would expect to find it in Queensland towards the Tweed River, in the south-eastern corner of the State. Its occurrence in the Wide Bay district extends our knowledge of its range considerably northwards.

Family Malvaceae.

Sida Cunninghamii *sp. nov.*

S. pedunculata A. Cunn. ex Benth. Fl. Austr. i. 193 (1863), non Domin.

Suffrutex vel herba perennis, caulibus foliisque dense stellato-tomentosis, canescentibus vel lutescentibus. Folia longe petiolata elliptico-ovata ad lineari-lanceolata apice obtusa vel subacuta, basi obtusa, leviter cordata vel in foliis latioribus manifeste cordata, margine crenulata, supra mollia subtus mollia vel saepe scabriuscula, nervis praecipuis supra impressis, subtus elevatis; petiolus 1-4 cm. longus; lamina 3–6 cm. longa, 1–3 cm. lata; stipulae setaceae 5 mm. longae stellato-tomentosae. Flores in racemos elongatos graciles dispositi vel raro pedunculis unifloris; racemi in longitudine variabili ad 28 cm. longi vel saepe ad 3 cm. reducti; bracteae ad setas 3 subaequales 5–7 mm.

longas reductae (unam folio respondentem et 2 e stipulis ortas). Calyx pilis stellatis dense obsitus, 7–8 mm. diam., 5-lobatus, tubo campanulato, 2 mm. alto, lobis late triangularibus 2·5 mm. longis. Calyx sub fructu leviter amplificatus. Fructus vix 1 cm. diam., depresso-globosus, carpellis dorso valde rugulosis lateribus profunde rugoso-reticulatis 2–2·5 mm. longis.

New South Wales.—Peels Range, *A. Cunningham* (Type: Herb. Kew).

Queensland.—Darling Downs: Hannaford, common on red soil ridges, *C. T. White* 11179 (flowers), 9-6-1938. Maranoa District: Nebine Creek, common, *C. T. White* 11781 (flowers and fruits), 3-4-1941. St. George, *J. Wedd* (flowers and fruits), Feb. 1894; Narine, south-east of Dirranbandi, in damp shady depressions on very sandy loam, only the one specimen seen, *S. T. Blake* 10694 (flowers and fruits), 5-3-1936 (erect, ca. 9 in., leaves subglaucous above, glaucous beneath, flowers yellow); about 30 miles west of St. George, on reddish fine sand in Eucalyptus forest, *S. T. Blake* 10797 (flowers and fruits), 15-3-1936 (stems tufted on a woody base, obliquely ascending up to 6 in. long, leaves dull green above, glaucous beneath, flowers yellow); Roma, alt. ca. 1000 ft., open places in mixed open forest on sandy soil, *S. T. Blake* 13287 (flowers and fruits), 15-2-1938 (tufted, spreading, ascending or erect to ca. 1 ft., leaves somewhat dull green above, glaucous beneath, flowers yellow). Warrego District: Charleville, alt. ca. 1000 ft., in dense Mulga (*Acacia aneura*) forest on orange, very sandy soil, *S. T. Blake* 11058 (flowers and fruits), 5-4-1936 (base woody, stems tufted, up to 1 ft. long, hoary, leaves dull light green above, glacous beneath, flowers yellow); Thargomindah, alt, ca. 400 ft., on stony reddish sandy loam plain in open mulga scrub, *S. T. Blake* 11780 (flowers and fruit remains), 24-6-1936 (base woody, stems oblique up to 1 ft., leaves glaucous above, hoary beneath); Gilruth Plains, east of Cunnamulla, alt. ca. 600 ft., in mulga country on reddish sandy soil, *S. T. Blake* 14036 (flowers and fruits), 19-5-1939 (very hoary perennial, stems erect, branched, up to 1 ft.; inflorescence long, trailing, flowers yellow). Gregory South District: Windorah, on red sand ridge with *Acacia aneura* and *Eucalyptus* spp., *S. T. Blake* 12092 (flowers and fruits), 12-7-1936 (tufted, oblique, glaucous, ca. 6 in.; inflorescence very lax, flowers yellow. Mitchell District: Torrens Creek, *J. E. Young*.

The present species comes closest to *S. pedunculata* Domin non Cunn. The only thing it has in common, however, apart from hoary vestiture, is its inflorescence which varies from simple to compound, in the latter case the branches or pedicels being subtended by three bracts, the two outer of which probably represent stipules, the inner one a much reduced leaf. *S. pedunculata* Domin (at least as far as the Queensland specimens are concerned), I should say is referable to *S. fibulifera* Lindl. This has a much shorter inflorescence and smaller fruits and carpels than *S. Cunninghamii* C. T. White. I would like to have retained Cunningham's name for the species but this was only quoted in synonymy (though accompanied by a few descriptive notes) and Domin's name must therefore stand.

Family Sterculiaceae.

Rulingia pannosa *R. Br.* in Bot. Mag. tab. 2191 (1821).

R. rugosa Steetz ex Bail. in Queens. Agric. Journ. i. 78 (1897), quoad Queensl.

This plant is moderately common in south-east Queensland. The plant recorded by Bailey l.c. as *R. rugosa* belongs here, so the species should be deleted from the Queensland Flora until authentic specimens have been collected.

Rulingia prostrata *Maid. & Betche,* Proc. Linn. Soc. N.S.Wales xxiii. 18 (1898).

Moreton District: Top of Mt. French, flat rock country, *E. J. Smith* (capsules), May, 1942. New for Queensland.

Family Hippocrateaceae.

Loeseneriella barbata (*F. Muell.*) *comb. nov.*

Hippocratea barbata F. Muell. in Trans. Phil. Instit. Vic. iii., 23 (1859).

Hippocratea obtusifolia Roxb. var *barbata* Benth. Fl. Austr. i. 404 (1863); Bailey Queens. Fl. i. 260 (1899).

Moreton District: Simpson's Gap near Brisbane, *J. H. Simmonds* (fruits), Nov. 1887; Brisbane River, *F. M. Bailey, Amalie Dietrich*; Rosewood, *F. M. Bailey, J. Shirley;* Mt. French, *E. J. Smith* (flowers and immature fruits), Jan. 1940 (a creeper). Wide Bay District: Bundaberg, *Jas. Keys*; Imbil, *local Forest Officer.* Port Curtis District: Rosedale, *L. G. Dovey* 222 (flowers), Nov. 1923 (flowers), Oct. 1930 (vine in "bastard scrub"; something appears to eat the young shoots). Cook District: Innisfail, *H. G. Ladbook.*

This species though represented by a number of sheets in the Queensland Herbarium cannot be said to be a common plant. It is typically found in the drier rain-forests or mixed soft-wood forests of the south-eastern parts of the State. The Innisfail plant is somewhat different in general appearance largely on account of its drying brown, instead of the very pale green of all the other specimens. Innisfail is distant from the other localities quoted and the district carries a very different vegetation—heavy tropical rain forest. Our specimen is rather scrappy and when better known may be found distinct. On examination, however, I can find no tangible differences of specific importance. Judging from its distribution it is unlikely the Australian plant would be the same as the Indian one to which Bentham l.c. referred it. Wright's figure (Ic. t. 963) of *Loeseneriella obtusifolia* (Roxb.) A. C. Smith is quoted by A. C. Smith as typical and shows a very different plant to the Australian one. The genus *Loeseneriella* was proposed by Smith (Amer. Journ. Bot. 28, 439, 1941) to separate the Asiatic and Western Pacific plants from the American *Hippocratea* where they had previously been placed.

Salacicratea disepala sp. nov.

Frutex scandens ubique glaber, ramulis subvalidis leviter applanatis sed mox teretibus et lenticellatis. Folia opposita vel subopposita; petiolus validus, supra canaliculatus, subtus convexus, 5–7 mm. longus; lamina chartacea vel tenuiter coriacea, oblonga, elliptica vel fere lanceolata 6–15 cm. longa, 3–6 cm. lata, basi subacuta et in petiolum decurrens, apice obtusa vel obtuse acuta, margine integra sed undulata; costa media utrinque valde elevata, nervi secundarii utrinsecus 8–10; venulae plerumque in sicco subtus prominulae. Inflorescentia axillaris, cymosa, pedunculo communi leviter applanato 1–1.5 cm. longo, ramis secudariis perbrevibus ad 5 mm. longis, bracteis triangularibus 1 mm. longis,

pedicellis 2–6 mm. longis. Calyx in alabastro calyptriformis, prominenter apiculatus deinde in sepala 2 fissus. Sepala tenuiter carnosa, suborbicularia, 5 mm. longa, 4 mm. diam. Petala textura sepalis similia, suborbicularia, 4 mm. longa, 3 mm. diam. Discus crasso-carnosus annulari-pulvinatus, 1 mm. altus, indistincte 3–4–lobatus. Stamina 3–4, demum recurvata, filamentis ligulatis, apicem versus gradatim angustatis, 2 mm. longis. Ovarium in disco immersum, stylo pyramidato-conico 1 mm. alto, stigmatibus obscuris. Fructus globosus 1.2 cm. diam, sed in speciminibus nostris immaturus.

Cook District: Yarrabah, *Rev. N. Michael* (old flowers and very immature fruits); Murray River, *H. Flecker* (ex herb. N.Q. Naturalists' Club No. 7826); Etty Bay, rain-forest regrowth, *C. T. White* 11751 (immature fruits), Dec. 1941 (climber); Boonjee, near Malanda, alt. 2,400 feet, common in rain forest, *S. T. Blake* 15188 (type: flowers), August 1943 (slender woody twiner, the lateral branches often twining tendril-like at base, stem about 2 cm. diam., with grey, nearly smooth bark, deep green beneath the surface; wood white; leaves green, paler beneath; flowers greenish white, stamens at first erect, then reflexed).

The present species is extremely interesting as providing a connection between *Salacia* L. and *Salicicratea* Loes. In its early stages the calyx is distinctly calyptrate in appearance but later splits into two equal orbicular sepals which are persistent for some considerable time even after the petals have fallen and the ovary started to fill out. The genus *Salacia* finds its greatest development in tropical America and A. C. Smith, in his revision of the American species (Brittonia 4, 424) remarks that even as far as the American ones are concerned this genus does not form an entirely coherent group, and some of the sections could conveniently form distinct genera. In typical *Salacicratea* the calyx forms a calyptra, dehiscing in an irregular line near the base leaving a narrow ring of calycine tissue below the petals. Dr. A. C. Smith, to whom I submitted a piece of the present plant, thinks it fits into *Salacicratea* and remarks "It is unusual for the calyx of this genus to spread into two sepals and to remain persistent, but I believe that the genus should be expanded to include this species. The true *Salacia*, in my opinion, never has a completely closed calyx in the bud."

In the past *Salacicratea disepala* has been confused with *Salacia prinoides* L. but apart from the calyx the two can be distinguished as follows:—

Inflorescence fasciculate	*Salacia prinoides.*
Inflorescence cymose	*Salacicratea disepala.*

Family Sapindaceae.

Atalaya virens sp. nov.

Arbor parva vel mediocris; ramuli glabri sub lente lenticellati. Folia plerumque 2–juga rarius 1–juga; petiolus et rhachis 3–7 cm. longa, in juventute distincte alata, in statu adulto angulata vel saepe minute alata; foliola lanceolata, basi in petiolum crassum brevem angustata, apice acuta, utrinque in sicco prominenter venulosa, viridia sed subtus pallidiora, 7–12 cm. longa, 1.5–2 cm. lata. Paniculae multiflorae, 8–12 cm. longae, 5–10 cm. latae, ramulis angulatis, tenuiter pubescentibus vel deinde glabris. Flores albi, pedicellis 2–3 mm. longis. Sepala oblonga, glabra, 2 mm. longa. Petala oblonga, 5 mm. longa, extus basi densissime hirsuta vel pubescentes partem superiorem versus gradatim

glabra, intus ad basem squama magna cristata ornata. Discus annularis, lobatus. Stamina petalis breviora, filamentis leviter applanatis tenuiter hirsutis. Ovarium profunde triangulare, lobis dorso hirsutis, lateribus glabris. Fructus glaber; loculi ascendentes; carpella prominenter costato-venosa, cum ala 3.5 cm. longa.

Moreton District: Kalbar, *E. J. Smith* (flowers), Oct. 1935; Kilcoy, *C. England* (flowers), Oct. 1919. Wide Bay District: Biggenden, *C. T. White* 7337; Mt. Bauple, on rain-forest slopes, and common as second growth, *C. T. White* 3488 (juvenile stage); Sinai, via Oakview, *F. Reynolds* (old flowers), Nov. 1923 (tree up to 75 ft. high and 2 ft. diam., bark fairly smooth, ½ in. thick, fresh blaze white, flowers in October). Burnett District: Eidsvold, *Dr. T. L. Bancroft* (type); Gayndah, *C. T. White* (juvenile leaves only). Leichhardt District: Dawson River, *Dr. T. L. Bancroft* (old flowers), Nov. 1915; Gogango Range, near Edungalba, in monsoon forest on light brown shallow stony soil, alt. 400-500 ft., *S. T. Blake* 15347 (flowers), 27-9-1943 (tree 20-30 ft. with rather open green crown; trunk with occasional protuberances; bark grey to light grey with numerous transverse ridges, scaly below, smooth above except for fine longitudinal lines, unusually hard, green immediately beneath surface, then dark cream; sapwood white; leaves green to dark green; flowers white). North Kennedy District: Kinrara, alt. 1,900 ft., in closed forest on basalt rock, *S. T. Blake* 14443 (fruits), 25-11-1941 (bushy-headed tree, 10–20 ft., leaves green, bark light grey, smooth to fissured).

This tree is common and widely spread in the mixed soft-wood (closed) forests ("scrubs") of the near coastal belt of Queensland. The specimens from Toowoomba (Darling Downs District) referred to by Radlkofer (Das Pflanzenreich IV. 165, Sapindaceae, p. 610 under *A. salicifolia* (DC.) Blume) probably belong here. It is a most unlikely locality record for this latter species, which is a native of Timor and North Austraila.

In the past the present species has been confused with *A. hemiglauca* F. Muell. but is easily picked out both in the field and herbarium by its rather bright green leaves and more glabrous character. The two species can be distinguished as follows:—

Leaves 2-5-jugate, glaucous green above, pale green beneath. Sepals tomentose. Petals tomentose. Ovary densely pubescent. Fruit tomentose .. .. *A. hemiglauca.*

Leaves 1-2-jugate, green on both surfaces. Sepals glabrous. Petals pubescent or hirsute in the lower part, glabrous in the upper. Ovary pubescent on the angles, glabrous on the sides. Fruit glabrous .. .. *A. virens.*

Family Leguminosae.

Acacia catenulata *sp. nov.*

Arbor mediocris, ramulis tomentosis, partibus novellis pilis aureis obsitis mox canescentibus. Phyllodia subcoriacea, recta vel falcata, anguste lanceolata ad basin glandulam marginalem plerumque ornata, venis parallelis numerosis et crebris, apice leviter et minute uncinata, basi angustata in petiolum brevem incrassata; lamina 3.5–9 cm. longa, 3–6 mm. lata; petiolus 2 mm. longus, validus, transverse rugulosus. Spicae tenues subdensae vel interruptae, singulae, pedunculatae, cum pedunculo 5 cm. longae. Flores 5–meri. Sepala 5, spathulata, limbo subrotundo ciliato, ungui tenui glabro. Petala libera elliptica 1.5 mm. longa. Legumen 2-6 cm. longum, 2-7-spermum, inter semina valde

constrictum plus vel minus planum sed supra semina leviter convexum; valvis chartaceis extus laxe reticulatis; semina longitudinaliter disposita, atro-castanea, funiculo haud plicato tenui sed ad apicem in arillum parvum incrassato.

Maranoa District: Between Mitchell and Morven, common on rocky hills, *C. T. White* 12092 (type, flowers and pods), 6-9-1941 (medium tree, hard somewhat furrowed bark; local name "Bendee," wood in demand for turnery); between Roma and Coogoon *L. Wright* (flowers) 17-3-1936; same locality (juvenile and sterile material only) *C. T. White,* May 1935; 20 miles west of Mitchell, co-dominant with *Cadellia pentastylis* in dense forest on greyish silt loam, alt. 1,600 ft., *S. T. Blake* 10936 (flowers), 31-3-1936 (tree, 30–40 ft., bark grey, compact, slightly fissured, thin, branches oblique, crown rather dense, glaucous, flowers bright yellow; local name "Bendee"). Warrego District: Morven, on timbered rocky sandy hill-top with *Acacia harpophylla* and *Eremophila Mitchellii,* alt. 1,400 ft., *S. T. Blake* 10918 (flowers), 31-3-1936 (tree ca. 20 ft. high with glaucous, rather dense crown; bark grey, furrowed, fibrous-flaky, flowers bright yellow). Mitchell District: Main Range, between Beta and Jericho (flowers), 10-2-1939 (received from Divisional Engineer's Office, Queensland Railways); Lorne Peak, about 50 miles S.S.W. of Blackall, growing among boulders on northern scarp of the Gowan Range, *S. L. Everist* No. 1872 (nearly ripe pods), August 1939 (tree about 20 ft. with slender branches; local name "Bendee").

It is difficult to know whether the present species should be placed in Bentham's series Stenophyllae or Falcatae of the Juliflorae. It has some of the characters of both but as its affinities obviously lie with *A. aneura* F. Muell. and *A. brachystachya* Benth., it is I think best placed in the former series.

The three species can be distinguished as follows:—

Phyllodia straight, thick, coriaceous, 4-8 cm. long, 3-4 mm. broad, sometimes terete, spikes 1.5-2.5 cm. Pods flat, 2.5-4 cm. long, 8-14 mm. broad, seeds oblique or transverse	*A. aneura* (Mulga).
Phyllodia narrow-linear, 5-18 cm. long, 1-3 mm. broad; spikes 1.5-2.5 cm. long; pod coriaceous, flattish but biconvex when ripe, straight, broad-linear, 2-8 cm. long, 6-8 mm. broad, seeds longitudinal or oblique	*A. brachystachya* (Umbrella Mulga).
Phyllodia thinly coriaceous, straight or falcate, narrow-lanceolate, 3.5-9 cm. long, 3-6 mm. broad. Spikes 2.5 cm. long. Pod flattish but slightly convex over the seeds, markedly moniliform due to constriction between the seeds, 2-6 cm. long; seeds longitudinal	*A. catenulata* (Bendee).

Family Combretaceae.

Terminalia insularis sp. nov. (Sect. *Myrobalanus*).

Arbor, ramulis validis apicem versus leviter incrassatis. Folia apicem versus ramulorum plus vel minus conferta, subtus molliter pubescentia; lamina obovata, vel elliptico-lanceolata, epunctata, plerumque plus vel minus abrupte et obtuse acuminata, basi cuneata, 8–17 cm. longa, 4.5–9 cm. lata, nervis praecipuis 8–9 in utroque latere, subtus elevatis, venis et venulis prominulis, petioli molliter pubescentes, 1–2·5 cm. longi. Spicae folia aequantes vel superantes densiflorae. Calycis tubus 2 mm. longus, dense sericeo-tomentosus; lobi deltoidei extus pilis albis sparsissime obsiti; intus ad basin pilis longis sericeis densissime

obsiti. Stamina 5 mm. longa. Drupa ovoidea vel oblonga, apice breviter cornuta, purpurea, tenuiter pubescens, exangulata, 2 cm. longa, 1 cm. diam.

NORTH QUEENSLAND.—Cook District: Thursday Island, Torres Straits, *F. M. Bailey, E. Cowley.*

HAWAII.—Manoa Arboretum (cultivated) *E. L. Caum* (type: flowers and fruits), 13-10-1940, Herbarium Experiment Station, H.S.P.A., No. 1696.

Photostats of specimens of the present plant were sent me by Mr. Caum some time ago and from these I could not place it satisfactorily. When specimens were received later I went through the Terminalia material in the Queensland Herbarium and found we had specimens (all imperfect) of the same plant in the folders of *T. platyphylla* F. Muell., *T. microcarpa* Dcne. and *T. petiolaris* A. Cunn. Specimens had been seen by Mr. A. E. Exell of the British Museum, who noted it as "aff. *T. petiolaris* A. Cunn." In Bentham's key to the Australian species in the "Flora Australiensis" it could be placed as follows:—

Leaves very obtuse, usually broad .. .. *T. platyphylla.*
Leaves mostly shortly acuminate:
  Leaves three or four times as long as the petiole:
    Pellucid dots very conspicuous under a lens .. .. *T. microcarpa.*
    Pellucid dots quite microscopic .. .. .. *T. insularis.*
  Leaves not twice as long as the petiole:
    Pellucid dots quite microscopic .. .. .. *T. petiolaris.*

Family MYRTACEAE.

Baeckea frutescens *L.* Sp. Pl. 358 (1753).

Cook District: Temple Bay, Cape York Peninsula, sandy plain, *J. E. Young* (leaves only), July 1923.

The above material is in leaf only but is an exact match for much Malayan material seen by me. The record will have to be verified later with flowering specimens.

Baeckea linearis sp. nov.

Frutex glaber ca. 1 m. altus, ramulis subquadrangularibus cortice griseo obtectis, internodiis 2–4 mm. longis. Folia linearia, plana, 5–8 mm. longa, vix 1 mm. lata, ad basin in petiolum perbrevem incrassata. Flores solitarii, breviter pedicellati, pedicello vix 1 mm. longo, ad basin 2 bracteato, bracteis pedicellum leviter excedentibus. Calyx late turbinatus in sicco prominenter 5–angulatus, 2.75 mm. diam., dentibus vel lobis latis. Petala alba 1 mm. diam. stamina 5, calycis lobis opposita, filamentis basin versus applanatis, antherarum loculis longitudinaliter dehiscentibus. Ovarium 3–loculare; ovula in quoque loculo ca. 10 sed saepe 1 loculo abortivo.

NEW SOUTH WALES.—Tweed River, *Jas. Keys.*

QUEENSLAND.—Moreton District: Stradbroke Island, *C. T. White*; Tugun, 66 miles S.E. of Brisbane, in "Wallum" country (*Banksia aemula*, low shrubs, &c.), grey sandy soil (white sand and humus), *C. E. Hubbard* 3894 (flowers) 5-9-1930, distributed from Herbarium, Kew (Eng.) as *Baeckea* sp. near *densifolia* Sm.; Tugun, sandy land edge of large peat swamp, not very common, *C. T. White* 7108 (flowers),

7-9-1930 (slender shrub 0.7–1 m. high, flowers greenish white, very small); Tugun, *G. H. Barker* (type, flowers), Sept. 1940. Wide Bay District: Traveston, mouth of Burrum River, common in sandy soil in the "Wallum" country, *C. T. White* 6333 (old flowers), 6-10-1929 (upright shrub about 1 m. high, flowers white or greenish white); Noosa, *H. A. Longman*; Lake Cootharaba, *Jas. Keys* 66 (slender shrub, on lake beach); Fraser Island, in fine sand, *C. E. Hubbard* 4525 (capsules) 15-10-1930; Fraser Island, *C. T. White sine no.* (flowers), Oct. 1921 (mixed in the herbarium folder with *B. stenophylla* F. Muell.).

The present species is undoubtedly very close to *B. stenophylla* F. Muell. but I found no difficulty in separating it at sight from the abundant material of that species in the Queensland Herbarium. It has also in the past been distributed from the Herbarium, Kew (Eng.) and Herbarium, Brisbane (Aus.) as *B. densifolia* Sm. vel aff. It is a spring flowering shrub, *B. stenophylla* F. Muell. a summer one, though I have seen a few flowers out in August.

The two species can be distinguished as follows:—

Leaves narrow, straight or curved, mostly concave, at least some and frequently nearly all clustered on short lateral branches; oil pustules always visible under a lens. Main flowering period Nov.-Jan. Stamens 8-13 .. .. *B. stenophylla.*

Leaves straight, flat, rather distantly placed along the stem (internodes 2-4 mm. long); oil pustules not visible. Flowers in Sept. Stamens 5 .. .. *B. linearis.*

Baeckea stenophylla F. Muell. Fragm. Phytogr. Aust. i. 12 (1858).

Bentham (Fl. Austr. iii. 80) described the stamens of this species as 5–6 and this was copied by Bailey (Queens. Fl. ii. 585). When examining the large series of specimens of this plant in the Queensland Herbarium I found the stamens to vary from 8–13, 11 being a very common number. Mueller in his original description says "Staminibus 10." The species is very common in the "Wallum" country, south-eastern Queensland (Moreton and Wide Bay Districts).

Callistemon linearis *DC.* Prodr. iii. 223 (1828).

North Kennedy District: Milray, south of Pentland, on sandy sloping banks of Crooked Creek, among low shrubs, *S. T. Blake* 9979 (flowers and fruits), 21-10-1935 (small irregular shrub up to 8 ft., calyx and corolla greenish, stamens crimson).

New for Queensland.

I had at first drawn up a description of the present specimens as a new species and later as a variety of *C. rigidus* R. Br., but on further examination of material in the Queensland Herbarium cannot separate the plant satisfactorily from *C. linearis* DC. This extends the range of the species very considerably as it was only previously known from the Hawkesbury sandstone in New South Wales. It is strange the plant has not been found in any connecting localities, though *C. rigidus* R. Br. comes into Queensland and *C. Chisholmi* Cheel from Central Queensland is apparently very closely allied.

Callistemon pachyphyllus *Cheel* var. **viridis** *Cheel* Proc. Linn. Soc. N.S. Wales l. 261 (1925).

Moreton District: Caloundra, *Miss E. Taylor* (type). Wide Bay District: Ringtail Creek, near Tewantin, *C. T. White* (flowers), March

1923; mainland opposite southern end of Fraser Island, on sandy swampy soil, rare, *S. F. Kajewski* 21 (young fruits), Jan. 1928 (shrub of few erect stems up to 4 ft. high); Fraser Island, *Miss Lovell,* Jan. 1894, *W. R. Petrie* 166, *C. T. White* 1345 (flowers), Oct. 1921, *F. C. Epps* (flowers—main flowering period just passed), Nov. 1922; Traveston, mouth of the Burrum River, only one plant seen in a "Wallum" swamp, *C. T. White* 6322, 6-10-1929 (upright shrub 1 m. high); Wallum, *Jas. Keys* (old flowers), Jan. 1904; Tin Can Bay, common in wet places in "Wallum" flats, *C. T. White* 12293 (flowers), 12-9-1943 (slender upright shrub 1–2 m., simple or little branched towards the top, flowers greenish yellow).

This variety is widely spread but not very common in the Wide Bay District. It is very variable but on the whole is characterised by very narrow leaves; some of those on the Fraser Island specimens measure up to 13 cm. long and only 3 mm. wide.

Callistemon salignus *DC.* var. **roseus** *n. var.*

Flores rosei.

Port Curtis District: Forest Reserve 20, Maryvale, Yeppoon, *E. J. Richter* (flowers), Oct. 1924.

A beautiful pink-flowered variety of this common tree.

Eucalyptus exserta F. Muell. Journ. Linn. Soc. (Lond.) iii. 85 (1859).

E. insulana F. M. Bail. in Queens. Agric. Journ. xvii. 103 (1906).

E. exserta is one of the most widely distributed eucalypts in Queensland. In going through our boxes of *E. resinifera* J. Sm. recently I came across specimens determined as such from Middle Percy Island collected by H. Tryon. These were evidently identical with Bailey's *insulana* and were much better than the specimens from the same collection on which he founded his species. I have no hesitation in placing all the material I have seen under *E. exserta* F. Muell. which is abundant on the adjacent mainland.

Leptospermum phylicoideum (*A. Cunn.*) *Cheel* Journ. & Proc. Roy. Soc. N.S.W. lxxvi. 231, 1943.

Kunzea peduncularis F. Muell. in Trans. Vic. Instit. 1855, 124 and in Hook. Kew Journ. viii. 67 (1856).

Darling Downs District: Lyra, *W. R. Petrie* (old capsules), June 1921; Ballandean National Park, alt. 3,400 ft., in rock crevices, *S. T. Blake,* 14136 (flowers), 29-1-1940 (dense showy, crooked-stemmed shrub, about 6 ft. high, with hard, compact, whitish papery bark, rather green leaves and white flowers).

The species was previously recorded by Mueller in his Second Census for Queensland without definite locality record.

Thryptomene hexandra sp. nov.

Frutex patens, ca. 1 cm. altus, ramulis cicatricibus foliorum delapsorum notatis. Folia linearia, apice mucronata, fere plana vel in sicco supra canaliculata dorso convexa et nigro-punctata, 4–6 mm. longa, 1 mm. lata. Flores numerosi, 1–3 in axillis foliorum superiorum, pedicellis 1 mm. longis, ad apicem 2–bracteolatis sed bracteolis mox deciduis; bracteolae lineares, 2 mm. longae calycis tubum aequantes vel leviter

superantes. Calycis tubus anguste urceolaris, profunde 12–costatus ad apicem ovarii leviter constrictus. Sepala 6 alba, suborbicularia, 1 mm. diam. Petala alba suborbicularia 1·5 mm. diam. Stamina 6–8 (plerumque 6 sepali opposita), filamentis brevibus validis; antherarum loculi globosi, connectivo in glandulam globosam producto. Ovarium 1–loculare; ovula 2 erecta, placentae brevi basilari intra loculum parvum ad apicem partis adnatae tubi calycis affixa.

Warrego District: Dynevor Downs, common on dry stony hillsides and ridges, *C. T. White* 11871 (type: flowers), 2-4-1941 (shrub 1 m., spreading habit, flowers white); near Adavale, on a range, *Dr. W. MacGillivray* 955 (flowers), 29-8-1923 (beautiful white-flowered shrub). (These last specimens were distributed from Herb. A. Morris as *T. oligandra* F. Muell. var. *parviflora* F. Muell.)

In its irregular number of stamens the present plant agrees with some species of *Baeckea* but has the persistent petaloid sepals and 1-celled ovary of *Thryptomene*. The stamens are mostly 6 in number but vary from 6–8, in the latter case 1 or 2 being opposite a petal. In botanical sequence the species comes between *T. Mitchelliana* F. Muell. and *T. Miqueliana* F. Muell. but in addition to floral characters differs from both in the narrow, linear not oblong or obovate leaves.

Family Rubiaceae.

Mitracarpum hirtum (*L.*) *DC.* Prodr. iv. 572 (1830).

Cook District: Cairns, *H. Flecker* (flowers and fruits) 25-6-41, N.Q. Nat. Club, No. 7582.

A native of tropical South America not previously recorded as a naturalised alien in Australia. (Det. by L. S. Smith).

Family Compositae.

Calotis inermis *Maid. & Betche* Proc. Linn. Soc. N.S.Wales xxvi., 84 (1901).

Warrego District: Goonamurra near Eulo, on hard red soil flats, *S. L. Everist* 1656 (flowers), 20-9-1938 (small erect herb, ray florets purple); Dynevor Downs, on hard dry stony ridges, *C. T. White* 11827 (flowers), 2-4-1941 (herb, flowers mauve).

The above specimens seem to agree well with the description published by Maiden and Betche except that I would hardly call the hairs scale-like, nor would I say the achenes are striate. On this account specimens were forwarded to the National Herbarium, Botanic Gardens, Sydney, where they were examined by Miss Melvaine, who reported that the Queensland plants were entirely conspecific with the only remaining specimen, from close to the type locality, of *Calotis inermis* in their Herbarium, the type having been evacuated. Miss Melvaine states that the achenes certainly do not appear striate, though it is possible that the mature fruits have that appearance. The description of the hairs, she says, presumably refers to their flattened character in the collapsed dried state when they do resemble narrow scales, though they are apparently narrowly conical when fresh.

Olearia glabra sp. nov. (Sect. *Merismotriche*).

Suffrutex glaber, ramosissimus, 0.5 m. altus, ramulis cortice griseo obtectis, junioribus angularibus. Folia sessilia, anguste linearia, plana,

apice acuta, basi subobtusa, in sicco leviter rugulosa 1–2 cm. longa, 1–1·5 mm. lata. Capitulae pedunculatae, pedunculis tenuibus 2–3 cm. longis. Bracteae involucri anguste lineares, acutae, interioribus 5 mm. longis, margine scariosae. Involucrum planum. Flosculi radii ca. 12, tubo corollae 4 mm. longo, ligula spathulata 2·5 mm. longa; flosculi disci corollae tubo 3.5 mm., limbo 5–dentato. Achaenia (vix matura) angulata, pubescentia; pappi setis 8 mm. longis.

Warrego District: Dynevor Downs, *C. T. White* 11829 (flowers), 2-4-1941 (intricately branched subshrub, 0.5 m., flowers whitish).

I had provisionally determined the above plant as *O. tenuifolia* Benth. vel aff. but as this species is only known from New South Wales I sent specimens to Mr. R. H. Anderson, Botanist in Charge of the National Herbarium, Sydney, and he replied: "I regret that we have been unable to reach any very satisfactory conclusion in regard to your specimen of *Olearia* species. The only specimen of *O. tenuifolia* Benth. in our herbarium is a small fragment collected by Fraser. So far as can be judged from such a small piece, this somewhat resembles yours, but differs in bearing glandular papillae, as described by Bentham, while yours appears to be smooth and glabrous. Your specimen also somewhat resembles our material of *O. adenophora* F. Muell. but this speices too is distinctly glandular-pubescent. I have not been able to find any sheets from New South Wales agreeing exactly with yours from the Warrego District."

Family Epacridaceae.

Leucopogon pedicellatus sp. nov.

Frutex erectus, 0·5–1 m. altus, caulibus rigidis in parte superiore ramosis, ramulis dense foliatis junioribus tomentosis. Folia erecta, lineari-lanceolata, apice subacuta valde mucronata sed vix pungentia, basi subobtusa breviter petiolata, convexa vel raro plana, supra viridia nitida enervia, subtus glauca striato-nervosa; lamina 1.5–2.5 cm. longa, 2–3 mm. lata; petiolus 1 mm. longus. Flores albi suaveolentes in racemos 5–10–flores in axillis superioribus dispositi, rhaci dense tomentosa, bracteis scariosis suborbicularibus ciliolatis 1.5 mm. diam., bracteolis bracteis similibus sed angustioribus, pedicellis tomentosis 2 mm. longis. Sepala bracteolis similia, late ovata, 2 mm. longa, 1.5 mm. lata. Corolla 4 mm. longa, anguste campanulata, lobis anguste lanceolatis tubo paulo brevioribus. Stamina prope faucem affixa, antheris oblongis apicibus sterilibus nullis. Ovarium glabrum, 6–9–loculare, disco hypogyno 0.5 mm. alto 5–lobato, stylo robusto 1 mm. alto. Drupa depresso-globosa 6 mm. diam.

New South Wales.—Byron Bay, very common on sandy land, *C. T. White* 10434 (flowers), 24-8-1936 (shrub 2 ft., flowers white, sweetly scented). Distributed as *L. Richei* R. Br.

Queensland.—Moreton District: Tugun, 66 miles S.E. of Brisbane, in "wallum" country (*Banksia aemula* and low shrubs), grey, sandy acid soil (white sand + humus), *C. E. Hubbard* 3865 (flowers), Sept. 1930 (distributed from Herb. Kew as *Leucopogon* sp.); Tugun, common in sandy land edge of large peat swamp, *C. T. White* 7107 (flowers), Sept. 1930 (upright shrub, 0.5–1 m. high, flowers white, pleasantly scented); Chermside, near Brisbane, on rocky (quartz) hillslopes, in open Eucalyptus forest, common and scattered through the forest, *C. E. Hubbard* 4047 (flowers), Sept. 1930 (distributed from Herb. Kew, Eng.,

as *L. muticus* R. Br.) ; Chermside, near Brisbane, common on rocky hills, *C. T. White* 6137, Aug. 1928 (upright shrub about 1 m. high, very handsome and floriferous, leaves light green above, glaucescent beneath, flowers white) ; Chermside, near Brisbane, common on rocky hills, *C. T. White* 6206 (type: flowers and young fruits), Sept. 1928 (erect shrub, stems branched towards the top, flowers white, young fruits 9–celled) ; Caloundra, *Dr. F. H. Kenny* (flowers), Aug. 1906. Wide Bay District: Noosa, *H. A. Longman* (fruits), Oct. 1912; Tin Can Bay, moderately common on "wallum" flats, *C. T. White* 12248 (flowers), Sept. 1943 (much-branched shrub, under 1 m., many stems from a common stock, flowers white) ; mainland opposite Fraser Island, common in sandy soil —"wallum" country, *S. F. Kajewski* 10 (sterile), Jan. 1928; Fraser Island, *C. T. White* (flowers and young fruits), Oct. 1921 (detd. and distributed from Herb. Brisb. as *L. Richei* R. Br.

In the past this has been mostly confused with *L. Richei* R. Br. which differs in having oblanceolate leaves, sessile flowers, the anthers with sterile tips and the ovary 5–celled. It has also been determined as *L. muticus* R. Br. which differs in the leaves being paler, hardly glacous beneath, spikes short and at most 5–flowered, flowers sessile and ovary 5–celled. The present species is undoubtedly nearest to *L. pleiospermus* F. Muell. which differs, however, in concave not convex leaves, green not glaucous beneath, and pedicels shorter (not exceeding the bracteoles). The geographical range of both species is distinct, *L. pleiospermus* F. Muell. is an inland, *L. pedicellatus* C. T. White a costal plant.

Leucopogon recurvisepalus sp. nov.

Frutex 1.5 m. altus rigidus et anguste erectus vel plus vel minus vagans, ramulis pubescentibus vel paene hirsutis. Folia linearia 0.6–1 cm. longa, utrinque tenuiter pubescentia deinde glabra, sessilia vel subsessilia, supra viridia enervosa, subtus pallidiora, paralleli-nervosa cum 5–7 nervis prominulis, apicem in acumen validum pungentem longum gradatim angustata, acumine ipso ca. 1 mm. longo. Flores singuli cum vel sine rudimento, rarissime in spicas 2–3–floras dispositi; bracteis anguste ovatis acutis 0.75 mm. longis, bracteolis late ovatis vel fere orbiculatis ciliatis apice abrupte longe mucronatis, sine mucrone 1.5 mm. longis 1 mm. latis, mucrone ipso 1 mm. longo. Sepala lineari-lanceolata 4 mm. longa, margine ciliata, apice in acumen longum gradatim angustata mox recurva. Corolla 5 mm. longa, lobis tubo longioribus. Antherae lineares, 1 mm. longae, apicibus sterilibus nullis. Ovarium 5–loculare; discus hypogynus cupuliformis, prominenter 5–dentatus. Fructus costatus ellipsoideus cum basi brevi sterili 3 mm. longus.

Moreton District: Hills near Plunkett, S. of Brisbane, sandstone ridge, open Eucalyptus forest, *C. E. Hubbard* 3798 (type: flowers), 31-8-1930 (distributed from Herb. Kew as *L. ericoides* R. Br.) ; Plunkett, *C. T. White* sine No. (flowers and fruits), Aug. 1923 (determined and distributed by Herb. Brisbane as *L. ericoides* R. Br.) ; Plunkett, fairly common on sandstone ridges, *C. T. White* 5584 (flowers), 24-2-1929 (shrub 4 ft., of narrow, upright or rather straggling growth).

The present plant is very close to *L. ericoides* R. Br. though it can easily be detected at sight. The two species key out as follows:—

Branchlets glabrous or minutely pubescent, bracteoles with a short blunt point, minutely denticulate-ciliolate, sepals straight scarcely 3 mm. long, bluntly acuminate, almost obtuse, margins minutely denticulate-ciliolate; corolla 4 mm. long .. .. *L. ericoides.*

Branchlets pubescent, almost hirsute; bracteoles with a long sharp point of about 1 mm., prominently ciliate; sepals 4 mm. long, gradually and lengthily acute, soon recurved, margins ciliate; corolla 5 mm. long .. .. *L. recurvisepala.*

Leucopogon rupicolus sp. nov.

Frutex densus, 1.5 m. altus, ramulis rigidis albo-villosis. Folia conferta, erecta vel deinde patentia margine valde plerumque ad costam mediam revoluta utrinque breviter et plus vel minus dense pubescentia, supra viridia subtus glaucescentia, breviter petiolata, lineari-lanceolata, apice acumine pungente 1–2 mm. longo terminata, lamina cum acumine 1–1.4 cm. longa, petiolo vix 1 mm. longo. Flores axillares, solitarii, subsessiles, bracteis minutis, bracteolis subrotundis 1 mm. diam. ciliolatis. Sepala ovato-lanceolata, 3 mm. longa. Corolla 7 mm. longa, tubo 4.5 mm. longo, faucem versus ampliato, lobis angustis 2.5 mm. longis. Antherae obtusae, lineares, 1 mm. longae, apicibus sterilibus nullis. Discus hypogynus cupularis, 5–dentatus. Ovarium 1–2–loculare in parte superiore pilis albis plus vel minus sparsis vestitum. Fructus 6 mm. longus, ellipsoideus, leviter et irregulariter striato-costatus.

Moreton District: Glasshouse Mts., alt. 1,760 ft., on summit of mountain, *D. A. Goy* 63 (flowers and young fruits), Oct. 1935 (small bushy subshrub, flowers white). Burnett District: Biggenden Bluff, alt. 2,000 ft., in rocky places, hillslopes, *C. T. White* 7723 (type: flowers and fruits), Aug. 1931 (shrub 1.5 m. of rather dense growth, flowers white).

The present species is very close to *L. margarodes* R. Br. but the two can be distinguished as follows:—

Small tree 2-3 m. in sandy land, leaves glabrous or hairy, 0.7-1 cm. long, acumen very short, rather blunt; flowers in 3-fld. spikes, sometimes reduced to 1 flower and rudiment, corolla 4 mm. long, shorter than the calyx, fruit prominently striate with a sterile base .. .. *L. margarodes.*

Shrub 1-1.5 m. in rocky places, leaves hairy on both sides, 1-1.4 cm. long, acumen 1-2 mm. long, strong and very pungent; flowers solitary, corolla 7 mm. long, tube considerably longer than the calyx, fruit slightly striate without a sterile base .. .. *L. rupicolus.*

Family Solanaceae.

Solanum discolor *R. Br.* var. **procumbens** *var. nov.*

Planta procumbens, foliis ellipticis vel ovatis.

Darling Downs District: Upper Teviot, *Rev. B. Scortechini* (type: Herb. Melb.). Moreton District: Canungra, in rain-forest, *C. T. White,* May 1917. Wide Bay District: Kin Kin, *C. T. White,* Jan. 1917.

In the National Herbarium, Melbourne, Scortechini's plant bears a label honouring his name by Mueller. The field label in Scortechini's handwriting is as follows: "Solanum discolor ? R. Br., Upper Teviot. It trails closely to the ground, forming large patches, the calyx is deeply lobed, the berry is red, characters removing it from *S. discolor.*"

In Bentham's "Flora Australiensis" iv. 456 and in Bailey's "Queensland Flora" iv. 1082 the berry of *S. discolor* R. Br. is described as greenish white. It is a very common shrub, however, in Queensland and the berry so far as I have observed is always a bright red when ripe. The type comes from the Coen River, Cape York Peninsula, so it is more than likely when examined the southern plant may be found distinct.

Solanum stelligerum *J.E. Sm.* var. **procumbens** *var. nov.*

Planta decumbens, caulibus radicantibus, ramis ascendentibus 20–30 cm. alt., foliis late ovatis, ellipticis vel fere oblongis.

Moreton District: Lamington National Park, alt. ca. 1,000 m., in rain-forest, *C. T. White* 11889 (type: flowers), 27-11-1942 (prostrate Solanum, creeping stems rooting freely and here and there sending up shoots 20–30 cm. high, flowers lilac); Numinbah, *C. T. White* 10232 (flowers), 10-4-1935 (procumbent Solanum common on floor of rain-forest, rooting here and there at the nodes); Currumbin, *C. T. White sine No.* (flowers), Sept. 1912 (quite prostrate, almost carpet-like, occasionally half-climbing), head of Little Nerang River, *C. T. White sine No.* (flowers), Jan. 1916 (a Solanum creeping near the ground).

Apart from its prostrate habit the present variety can generally be told at sight from the normal form by its broad short leaves. After considerable time spent on an examination of all our material, however, I consider it only worthy of varietal rank, especially as a prostrate variety also occurs of the closely allied *S. discolor* R. Br.

Family Scrophulariaceae.

Angelonia salicariaefolia *Humboldt & Bonpland* Plantae aequinoctiales Vol. 2, p. 92, t. 108.

Cook District: Innisfail, subspontaneous about the town, *C. T. White* 11735 (flowers), 7-12-1941 (perennial herb, flowers bluish purple in the centre, white towards the edges); Horn Island, Torres Straits, on site of old garden, *H. J. Tyack Bake* (flowers), June 1943.

This plant, a native of Venezuela, is very common in cultivation in North Queensland and is subspontaneous around many towns. There is considerable colour range in the flowers from white to dark purplish blue.

Family Acanthaceae.

Xerothamnella *gen. nov.*

Calyx in sepalos 5 profunde divisus, sepalis angustis. Corolla bilabiata. Corollae tubus limbo brevior, rectus; limbus 2–labiatus, labio superiore 4–lobato, labio inferiore integro. Stamina 2, filamentis applanatis, parte libera brevi prope basin loborum labii superioris affixa; antherarum loculus unus perfectus terminalis, altero ad dentem parvum reducto; pollen ellipsoideum, laeve. Staminodia 0. Discus crassus. Capsula applanata, ellipsoidea basi in stipitem solidum angustata. Semina 2 vel abortu 1, plano-compressa, tuberculata. Frutex. Folia integra, parva. Flores solitarii, ad axillas foliorum superiorum confertorum dispositi. Bracteae 0. Species 1, Australiana.

X. parvifolia *sp. nov.*

Frutex parvus, vagans, ramosissimus, ramulis pilis appressis dense obsitis. Folia sessilia, elliptica, crassa, tenuiter pubescentia vel deinde glabra, 6–8 mm. longa, 2.5–3 mm. lata, costa media subtus elevata, nervis lateralibus non visibilibus. Flores singuli, ad axillas foliorum confertorum plerumque ad apicem ramulorum brevium lateralium dispositi. Bracteae 0. Sepala angusta, acuta, 5 mm. longa, 0·75 mm. lata, pubescentia. Corolla bilabiata, labio superiore 4–lobato, 7 mm. longo (parte integra 4 mm., lobis 3 mm.), lobis albis basi rubro-punctatis, labio inferiore integro 6 mm. longo extus albo intus atro-sanguineo, tubo

labiis breviore, 3 mm. longo. Stamina 2, filamentis applanatis, parte libera brevi prope basin loborum labii superioris affixa; antherarum loculus unus perfectus terminalis, altero ad dentem parvum reducto; pollen ellipsoideum laeve. Staminodia 0. Discus crassus. Ovarium glabrum, stylo pubescenti gracili. Capsula plano-compressa, ellipsoidea, basi in stipitem solidum angustata, cum stipite 1 cm. longa, 3 mm. lata, 2–sperma vel abortu 1–sperma; semina plana, tuberculata, vix 3 mm. lata.

Warrego District: Dynevor Downs, rather rare on dry hard stony hillsides, *C. T. White* 12052 (type: flowers and capsules), 1-4-1941 (small straggling intricately branched shrub 1 m. or slightly more high; upper lip of corolla 4–lobed, lobes white with a few red spots at the base; lower lobe entire, deep blood red inside; white outside); Wittenburra Station, about 36 m. south of Eulo, growing on hillsides, *S. L. Everist & L. S. Smith* 48 (flowers), 7-1-1937 (small shrubby, woody).

In Lindau's account of the family Acanthaceae in Engler & Prantl's Pflanzenfamilien (Vol. IV, pt. 36) *Xerothamnella* would come into the section IV. B.13 *Acanthoideae—Imbricatae—Pseuderanthemeae* with affinities to *Pseuderanthemum* Radlk. which differs in possessing a long slender corolla tube with a spreading almost equally 5–lobed limb. The most characteristic feature of the new genus is the 2–lipped corolla limb, the upper segment 4–lobed, the lower entire. In the field the difference in colour of the two lips is most striking.

Family Myoporaceae.

Eremophila tetraptera sp. nov. (Pl. III).

Frutex glaber, ramulis robustis, partibus novellis viscidulis. Folia lineari-lanceolata, 4–5·5 cm. longa, 4–7 mm. lata, in sicco rugulosa, in vivo probabiliter carnosula, nervis et venis invisibilibus, apice subobtusa, basi in petiolum brevem gradatim attenuata. Flores atro-rubri singuli in axillis foliorum superiorum; pedunculi graciles, apicem versus incrassati et obscure angulati, ca. 1·5 cm. longi. Calyx basin usque fissus, segmenta linearia, in sicco rugulosa, in alabastro basi imbricata, in flore adulto patentia, 5 mm. longa. Corolla basi angusta abrupte ampliata, leviter curvata vel fere recta, 3 cm. longa, bilabiata, sed lobis subaequalibus; os 1·5 cm. diam.; lobi subrotundi, intus brevissime et tenuiter tomentosi. Stamina exserta; filamenta glabra juxta basin tubi inserta, antherarum loculi divergentes. Ovarium glabrum, 4–angulatum, deinde 4–alatum, stylus gracilis, flexuosus, satis longus, post anthesin diu persistens. Fructus siccus, profunde 4–alatus, 1·2 cm. longus, 1 cm. latus.

Gregory North District: Old Cork and between Diamantina Gates and Springvale, *L. G. Walker* (flower-buds and old capsules), Feb. 1942.

The prominently winged Dodonaea-like fruits are very characteristic. The only other *Eremophila* described with winged fruits is *E. pterocarpa* W. V. Fitzg. from West Australia but from the description this seems a totally different plant.

Family Labiatae.

Microcorys queenslandica sp. nov.

Frutex 2 m. altus, erectus, virgatus, ramulis glabris subquadrangulis internodiis plus vel minus profunde 2–sulcatis. Folia opposita glabra, sessilia, anguste linearia, supra concava, apice acuta (vix mucronata),

1.5–2 cm. longa, 1 mm. lata. Pedicelli glabri axillares, 1 mm. longi, prope apicem bracteati; bracteis 0·5–0·75 mm. longis, minute ciliolatis. Calyx nitidus, prominenter 5–dentatus, glaber; tubo 10–costato, 3 mm. longo, dentibus acutis triangularibus vix 1 mm. longis. Corolla extus pubescens, 7 mm. longa, exserta, tubo cylindrico superne in faucem campanulatum dilatato, limbo 2–labiato, postico concavo emarginato antico 3–lobato breviore. Stamina perfecta 2, postica; antheris dimidiatim 1–locularibus, connectivo elongato antice in appendicem dilatatum barbatumque productum; staminodia 2 antica, staminibus aequilonga, antheris ad connectivum parvum in ramos 2 breves productis. Nuculae reticulatae.

Mitchell District: Enniskillen, common in rocky sandstone hills, *C. T. White* 12403 (flowers), 13th Nov., 1943 (shrub 2 m. twiggy upright growth; flowers white, sometimes with a faint purplish tinge).

The genus was previously thought to be confined to West Australia. It comes into the section *Hemigenioides* and has closest affinity to *M. tenuifolia* Benth. which differs in the branches being hoary or white with minute appressed hairs, the flowers larger and the calyx clother with a minute hoary pubescence.

Prostanthera lepidota sp. nov.

Frutex expansus, ramosus, 2 m. altus, odore gratissimo, ramulis rigidis sparse pilosis plus vel minus dense lepidotis. Folia conferta, utrinque densissime glanduloso-lepidota, anguste obovata, crassiuscula, enervia, apice obtusiuscula, basi in petiolum brevem gradatim angustata, integerrima, plana vel leviter concava vel petiolum versus plus minusve involuta; petioli 1–2 mm. longi; laminae 0.8–1.4 cm. longae, 3–4 mm. latae. Flores singuli in axillis foliorum superiorum ramorum brevium lateralium; pedicellus 2–3 mm. longus, albo-villosus et papillosus, prope basin bracteis 2 minutis praeditus. Calyx papilloso-glandulosus, 8 mm. longus, bilabiatus, tubo basin versus leviter costato, labiis obtusis fere aequilongis. Corolla 2·5 cm. longa, pilis albis plus vel minus sparsis obsita, labio postico concavo antico multo breviore. Stamina 4; antherae 2–loculares, loculis leviter divergentibus, connectivo parvo in appendiculam non productivo. Nuculae (immaturae) rugulosae.

Mitchell District: Enniskillen, common in rocky sandstone hills, *C. T. White* 12404 (flowers), 13th Nov., 1943 (shrub 2 m., spreading branching habit, flowers at first greenish yellow or cream, later a peculiar bluish green (olivaceous or almost cupreous) with a tinge of purple).

In Bentham's arrangement in the "Flora Australiensis" this species comes into Section *Euprostanthera,* Series *Subconcavae,* with closest affinities probably to *P. lithospermoides* F. Muell. which differs in the young shoots being silky, the leaves 2–5 cm. long, calyx smaller 5 mm. long and anthers with one appendage about twice as long as the cell.

Family Amaranthaceae.

Ptilotus leucocoma (*Moq.*) *F. Muell.* Census Aus. Plants (First Edition) 29 (1882).

Warrego District: Near Adavale (only one plant seen), *Dr. MacGillivray* (ex herb. A. Morris No. 944); Cunnamulla, *C. B. Christesen* (flowers), Sept. 1932; Charleville, E. W. Bick (flowers), Dec. 1916; Wallal, common on sand plains, *C. T. White* 12026 (flowers), 26-3-1941 (annual; flowers lavender).

Several of the above specimens had been distributed previously as *Trichinium calostachyum* F. Muell. but the scale-like teeth between the stamens characteristic of that species are missing in the specimens quoted above. The type gathering is not available to me and the description in the "Flora Australiensis" v. 238 "dorsal hairs not so dense nor so long as in most species" I hardly think applies. Our specimens agree, however, with material from north-west New South Wales distributed by the National Herbarium, Sydney. According to J. M. Black, "Flora of South Australia," 213, the species occurs in New South Wales but has not been collected in South Australia since the original gathering was made in that State.

Family CHENOPODIACEAE.

Bassia bicornis (*Lindl.*) *F. Muell.* var. **horrida** *n. comb.*

Sclerolaena bicornis Lindl. var. *horrida* Domin Bibl. Bot. Heft. 89, Teil 1, 69 (623) (1921).

Sclerolaena horrida Domin, l.c. (in obs.).

This plant is very common in Western Queensland, where along with the normal form it is popularly known as Goat Head. It is one of the most objectionable burr plants of the interior. Domin has suggested it might be worthy of specific rank and this was my impression for some time, but on close examination I cannot find any substantial differences other than the size of the fruiting perianth and the length of the spines. In the normal form the fruiting perianth averages 1 cm. across and the spines 1 inch long; in var. *horrida* the fruiting perianth averages 5 mm. across and the spines 5 mm. long.

The variety is represented in the Queensland Herbarium by the following specimens:—

Maranoa District: St. George, *T. W. Gillham*; Noondoo Station, via Dirranbandi, *S. L. Everist* 756 (fruits), 14-12-1934 (woody subshrub); Muckadilla, *D. Grieve;* Mungalalla, alt. 1,390 ft., in railway enclosure amongst grass in brown stony soil, *C. E. Hubbard and C. W. Winders* 6077 (fruits), 1-1-1931 (herb with woody rootstock, grey leaves). Warrego District: Near Wyandra, common on claypans, *C. T. White* 11701 (fruits), 26-3-1941. Mitchell District: Northampton Downs, east of Blackall, *S. L. Everist* 1308 (fruits), 27-8-1935 (intricately branched subshrub on light soil, leaves light green or glaucous cottony); Malvern Hills, 22 miles west of Blackall, *S. L. Everist* 2139 (fruits), 28-6-1940 (subshrub, common on brown clay soils, particularly in areas devoid of grass); Longreach (very prevalent in the district), *T. J. Costello* (fruits), 12-7-1934; Longreach, downs country on more or less stony light, yellowish brown clay loam, *S. T. Blake* 6600 (fruits), 3-7-1934 (tufted, rather bushy, 1–1½ ft. high, glaucous); Arrilalah, *S. T. Blake* 6642 (fruits), 4-7-1934 (more or less bushy light dull green annual); Isisford *S. T. Blake* 6665 (fruits), 6-7-1934 (tufted, stems suberect, leaves more or less glaucous). Leichhardt District: Clermont, *F. J. Graham* (fruits), 17-12-1934.

Bassia decurrens J. M. Black, Trans. Roy. Soc. S. Aust. xlvi. 567 (1922).

Warrego District: Dynevor Downs, *C. T. White* 11703, 2-4-1941. Gregory South District: Nockatunga Station, approx. 27 deg. 40 min. S. 143 deg. E., on claypans, *S. T. Blake* 11811, 26-6-1936 (somewhat spreading, green, about 6 in. high); Nockatunga Station, approx. 27 deg. 40

min. S. 142 deg. 50 min. E., between channels of Wilson River, on loamy sand "claypans," among other chenopods, ca. 300 ft., 27-6-1936, *S. T. Blake* 11838 (tufted, nearly prostrate green undershrub) and *S. T. Blake* 11835 (straggling undershrub, the stems ascending to 9 in., the leaves dull light green—specimens less mature than 11838); on Tanbar, S.W. of Canterbury, on silt beds, *S. T. Blake* 12138, 15-7-1936 (tufted bushy dull green annual of ca. 6 in.); Birdsville, in drift sand between sand-hills, *S. T. Blake* 12250, 19-7-1936 (bushy somewhat spreading subglaucous annual of ca. 6 in.).

Not previously recorded for Queensland.

Bassia ramulosa *sp. nov.*

Suffrutex ramosissimus, ramis hirsutis costatis deinde sublignosis. Folia lineari-lanceolata, pilis longis plus vel minus dense obsita, in sicco leviter longitudinaliter rugulosa, 5–6 mm. longa. Flores solitarii. Perianthium fructiferum persistens, subglobosum, depressum, hirsutum, 2.5 mm. diam., spinis 4 vel raro 5, quarum una brevis et bifida, horizontaliter patentibus rectis 2–3 mm. longis. Utriculus oblique verticalis.

South Kennedy District: Banchory, 42 miles W. of Clermont, *Bassingthwaite and Cole* 6 (fruits in various stages), Oct.-Nov., 1935.

In Anderson's key (Proc. Linn. Soc. N.S.W. xlviii. 231-235) the present species would be placed nearest to *B. Drummondii* (Benth.) F. Muell. The distinctions are as follows:—

Fruiting perianth with 3-4 spines, 2 of which are more or less equal, the others smaller	*B. Drummondii* (Benth.) F. Muell.
Fruiting perianth with 4 or 5 spines, one of which is shorter and bifid	*B. ramulosa* C. T. White.

Bassia tetracuspis sp. nov. (Sect. *Anisacantha*).

Suffrutex glaber, caule decumbens, ramis adscendentibus sublignosis valde costatis. Folia linearia, crassiuscula 0.7–1 cm. longa, in sicco ca. 1 mm. lata. Flores solitarii. Perianthium fructiferum persistens, depresso-oblongum, 1–2 mm. diam.; spinis 4, subaequalibus 3–8 mm. longis rectis divergentibus. Utriculus horizontalis vel leviter obliquus.

Darling Downs District: The Oaks, 20 miles S.W. of Tara, common on grey clay soil, following ring-barking of Brigalow (*Acacia harpophylla*), *S. L. Everist* 1738 (type: fruits), 13-3-1939 (intricately branched subshrub, relished by sheep, local name "Bindy-eye"); Hannaford, common in cleared Brigalow (*Acacia harpophylla*) country, *C. T. White* 11305 (fruits), 8-2-1938 (generally regarded by local graziers as a useful fodder for sheep; local names "Tara Lucerne," "Prickly Saltbush," and "Bindy-eye"). Wyaga, near Goondiwindi, *C. T. White*, Sept. 1919; Surat, *T. S. Leonard*, 24-2-1927; Kindon, about 54 miles N.N.E. of Goondiwindi, common where there has been heavy stocking around troughs, *L. S. Smith* 599 (fruits), 7-12-1938; Chinchilla, *J. Mann*, 12-2-1922; Palardo, on land which has been cleared of prickly-pear (*Opuntia inermis*) by *Cactoblastis* (Comm. Director of Agriculture), 26-2-1930; Palardo, alt. 1,100 ft., Brigalow-Beelah country, very common, *S. T. Blake* 5863 (fruits), 9-5-1934 (tufted, more or less prostrate, green; local name "Bindie"). Maranoa District: Mount Abundance, *Story* (local name—Dog Burr). Port Curtis District: Gogango, *Cole*. Warrego District: Morven, alt. 1,400 ft., Acacia forest on dull brown

silty clay, *S. T. Blake* 5674 (fruits), 1-5-1934 (tufted, decumbent, scarcely glaucous). Leichhardt District: Wandoan, in Brigalow country on heavy clay soil, *C. E. Hubbard* 5041 (fruits), 17-18-11-1930 (plants spreading over the ground, with glaucous-green leaves. Distributed ex Herb. Kew as *Bassia divaricata* (R. Br.) F. Muell.).

A very distinctive species so far as observed confined to cleared Brigalow (*Acacia harpophylla*) scrub country where it is very common. It is distinguished from its near allies by its decumbent habit and constantly four nearly equal spines of the fruiting perianth. Its closest affinities lie with *B. tricuspis* (F. Muell.) Anders. and it seems more distinct from that species than does *B. longicuspis* F. Muell. Both these are common in Queensland but most of our material of the latter is scarcely typical and is hardly separable from *B. tricuspis* (F. Muell.) Anders. Anderson in his monograph has remarked on this point when referring to a Queensland specimen. In Anderson's key the new species proposed could be placed as follows:—

Fruiting perianth attached by a broad distended base. Spines 3, more or less equal. Limb erect	*B. tricuspis* (F. Muell.) Anders.
Base of fruiting perianth not distended. Spines 4, more or less equal. Limb erect	*B. tetracuspis* C. T. White.

Bassia *All.* Sectio **Trachycarpus** *sect. nov.*

Perianthium fructiferum biloculatum, loculo superiore minore, semine impleto, loculo inferiore vacuo; tubus irregulariter 10–costatus, costis 5 in spinas compresso-angulatas productis, costis alternantibus minoribus in dentes minutos productis.

Bassia Walkeri sp. nov. (Pl. IV).

Suffrutex, ramis tomento lanoso dense obtectis, deinde glabrescentibus. Folia linearia, crassiuscula, in juventute pilis longis albis sparsis obsita, 5–6 mm. longa, in sicco ca. 0.75 mm. lata. Flores solitarii; perianthium floriferum subdisciforme, lanuginosum. Perianthium fructiferum depresso-globosum coriaceum, 2.5 mm. diam., biloculatum, loculo superiore minore utriculo impleto, loculo inferiore vacuo; tubus 10–angulatus, angulis vel costis alternantibus minoribus, costis majoribus in processus (vel spinas) compresso-angulatos, plerumque furcatos, ca. 1 mm. altos productis. Utriculus horizontalis.

Gregory North District: Diamantina-Mackunda Creek Channels, on flats associated with Soda Bush (*Threlkeldia proceriflora*), *L. G. Walker* (flowers), July 1941 (fruits; type), Feb. 1942.

I have failed to place this in any of the sections of *Bassia* proposed by Anderson in his key to Australian members of the genus *Bassia* (Proc. Linn. Soc. N.S.W. Vol. xlviii., pp. 321-325). The position of the new section in Anderson's arrangement is as follows:—

3A. Flower clusters solitary, the fruiting perianths not connate.

5.	Spines broadly flattened, forming horizontal appendages	Section V. *Platyacantha.*
5a.	Spines not flattened, acicular	Section III. *Anisacantha.*
5b.	Spines compressed-angular, erect, mostly furcate or lobed at the top	Section IIIA. *Trachycarpus.*

In Ulbrich's account of the Chenopodiaceae (Pflanzenf. ed. II 16c. 1934) I should say *B. Walkeri* would come under his genus *Austrobassia* (Sect. *Ventricosae*).

In the horizontal utricle and seed, large cavernous base of the fruiting perianth and irregular upright spines, *Bassia Walkeri* seems to come closest to *B. anisacanthoides* (F. Muell) Anders. but it is very distinct from that species. Ulbrich l.c. follows Domin in retaining this latter species under *Coilocarpus* F. Muell. ex Domin but does not recognise that Anderson, after an examination of the types, united *Bassia brevicuspis* F. Muell. with *Echinopsila anisacanthoides* F. Muell. The full synonymy of this species is therefore as follows:—

Bassia anisacanthoides *R. H. Anderson* Proc. Linn. Soc. N.S.W. xlviii. 330 (1923).

Echinopsila anisacanthoides F. Muell. Trans. Phil. Instit. Vic. ii. 76 (1858) (oldest name).

Sclerolaena anisacanthoides Domin Bibl. Bot. Bd. xxi. Heft 89, Teil 1, 624 (1921).

Anisacantha brevicuspis F. Muell. Fragm. iv. 150 (1864).

Kentropsis brevicuspis F. Muell. l.c.

Threlkeldia brevicuspis F. Muell. ex Benth. F. Austr. v. 198 (1870).

Bassia brevicuspis F. Muell. First Census 30 (1882), and Icon. Austr. Salsol. Pl. Plate lxvii. (1889).

Coilocarpus brevicuspis Domin Bibl. Bot. Bd. xxi., Heft 89, Teil 1, 625 (1921).

Distribution.—Queensland and New South Wales. Very widely spread and common especially in the former State where it is popularly known along with *B. echinopsila* F. Muell. as Red Burr.

Family Monimiaceae.

Steganthera australiana sp. nov.

Arbor parva, ramulis subteretibus glabris. Folia opposita, petiolata; petiolus ca. 5 mm. longus; lamina glabra, lanceolata 9–12 cm. longa, 2.5–4 cm. lata, apice gradatim acuminata, basi cuneata, chartacea, integra vel in parte superiore distanter dentata vel margine in sicco undulata et semi-dentata, nervis venisque supra parum conspicuis, subtus subprominentibus, venis laxe reticulatis, nervis praecipuis 6–8 in utroque latere in venam intramarginalem prominulam 3–5 mm. a margine confluentibus. Flores masculi in cymas paucifloras (semper 3–floras in speciminibus nostris) laterales dispositi, pedunculis pedicellisque pilis brunneis longis obsitis, pedunculo ca. 1 cm. longo, pedicellis 1.5–2 mm. longis; flores (alabastri ?) depresse globosi, 3 mm. diam., pubescentes. Stamina 4, filamentis applanatis, dense hirsutis, antheris 0.5 mm. latis. Flores foeminei et fructi ignoti.

Cook District: Garradunga, common in rain-forest, *C. T. White* 11738 (flowers), 5-12-1941 (small tree, flowers cream).

The genus previously contained seventeen described species all but one of which, in the Celebes, were found in New Guinea. Among previously described species the Australian plant seems to come closest to *S. Schlechteri* Perk. and the two can be distinguished as follows:—

Leaves oblong or ovate-oblong, 9-13 cm. long, 3.75-5.75 cm. broad, toothed in upper part .. .. *S. Schlechteri.*

Leaves lanceolate, 9-12 cm. long, 2.5-4 cm. broad, entire, undulate or with a few distant teeth in the upper part .. .. .. *S. australiana.*

Family Proteaceae.

Grevillea albiflora sp. nov.

Frutex 2–5 m. altus, ramulis robustis subrigidis dense sericeis. Folia 12–18 cm. longa, profunde pinnatifida, segmentis 5–7 angustissime linearibus, infimis saepe bilobis, 8–12 cm. longis, 1.5 mm. latis, apice leviter pungentibus, utrinque sericeis supra deinde glabris, subtus 2–sulcatis. Racemi in paniculos terminales dispositi, 10–14 cm. longi, ramis et pedicellis lanuginosis, pedicellis robustis 5–6 mm. longis. Petala extus dense sericea intus glabra, 7 mm. longa. Torus rectus. Ovarium dense sericeum manifeste stipitatum, stipite 1·5 mm. longo, stylo glabro, stigma obliquo. Folliculus extus tomentoso-sericeus, 2 cm. longus, 1.5 cm. latus.

Warrego District: Gilruth Plains, E. of Cunnamulla, on sandridge with *Callitris, Triodia,* &c., *S. T. Blake* 14065 (flowers and old capsules), 20-5-1939 (irregular hoary shrub 6–15 ft.; flowers white).

According to the arrangement by Bentham in the "Flora Australiensis" the present species comes in the Section *Eugrevillea* but fits into neither series as outlined by him for the ovary is both densely villous and stipitate. The series *Hebegynae* could be emended to include it when it would come very close to *G. eriostachya* Lindl. but the two species can be distinguished as follows:—

Leaves simply pinnately divided (rarely undivided). Flowers subsessile, ovary sessile. Native of West Australia .. .. *G. eriostachya.*

Leaves pinnately divided, lowest segments often again divided. Flowers on pedicels of 5-6 mm. Ovary distinctly stipitate (stipes 1.5 mm.). Native of South-west Queensland .. .. *G. albiflora.*

Hakea collina sp. nov.

Frutex dense et contorte ramosus, ramulis robustis rigidis juvenilibus dense vel tenuiter appressee hirsutis. Folia teretia pungentia, 2–4 cm. longa, ca. 2 mm. diam. Flores parvi, in fasciculos axillares dispositi. Pedicelli graciles, 4 mm. longi, appresse et plus vel minus tenuiter pubescentes. Petala extus pilis longis albis sericeis adpressis vestita, 5 mm. longa. Torus rectus; glandula magna carnea unilateralis patelliformis. Ovarium glabrum perbreviter stipitatum, stylo elongato, glabro, stigmate obliquo fere plano sed in medio apiculo parvo instructo. Folliculus (in specimine nostro imperfectus) laevis, ca. 2 cm. longus, 7 mm. latus, basi angustatus curvatus.

Warrego District: Dynevor Downs, E. of Thargomindah, on sandstone tableland, in open stunted Acacia scrub, alt. 600-700 ft., *S. T. Blake* 14088 (type: flowers), 22-5-1939 (irregular, gnarled, more or less intricately branched shrub of ca. 3–4 ft.; leaves dull green, perianth whitish, style reddish); near Eromanga, on rugged sandstone hills, alt. about 1,000 ft., *S. T. Blake* 11893 (flowers and old capsules), 1-7-1936 (rather dense, intricate shrub ca. 3 ft. high; leaves dull olive green or dull subglaucous; perianth cream, style red); Quilpie, *A. K. Shield* (flowers), Dec. 1933.

In Bentham's arrangement in the "Flora Australiensis" the present species would come in the Section *Euhakea* series *Pubiflorae* and

would come between *H. rugosa* R. Br. and *H. epiglottis* Labill. The present species would key out as follows:—

Fruit rugose, stigmatic disk with a central cone.

Fruit above 1 inch long, ¾ inch broad .. .. *H. rostrata.*

Fruit ½-¾ inch long, under ½ inch broad .. .. .. *H. rugosa.*

Fruit smooth or slightly rugose, stigmatic disk flat or with a minute central apiculum.

Leaves 4-7.5 cm. long, 1 mm. diam. Native of Tasmania .. *H. epiglottis.*

Leaves 2-4 cm. long, 2 mm. diam. Native of South-west Queensland .. .. *H. collina.*

Hakea intermedia *Ewart and Davies* Fl. North. Terr. 86, tab. 10 (1917).

Gregory South District: Mount Howitt Station, about 80 miles W. of Eromanga, in drifted sand at and near the base of sandhills, *S. T. Blake* 11935 (flower buds, a few older flowers and old fruits), 4-7-1936 (irregular small tree up to 20 ft., with very thick dark grey deeply furrowed corky bark; flowers dull yellow, scented); Tanbar Station, S.W. of Canterbury, on sand-plain among *Triodia Basedowii, S. T. Blake* 12142 (flowers), 15-7-1936 (narrow, rather irregular shrub or small tree, up to 15 ft., with dark grey rather rugged bark; leaves dull subglaucous; flowers dirty yellow).

Specimen No. 11935 bears mostly young buds rather badly insect-eaten but they have the oblique gland of *H. intermedia* Ewart and Davies. It consists of two sheets taken from separate trees; a sterile vigorous shoot has leaves up to 20 cm. long. No. 12142 has leaves mostly about 5 cm. long, racemes up to 12 cm. long and large flowers on pedicles up to 1 cm. long, the flowers are badly insect eaten, especially the stigmatic tops of the pistils but one or two in better preservation show the peculiar stigmatic top of *H. intermedia* Ewart and Davies described by the authors.

Helicia Bauerlenii sp. nov.

Arbor parva, 6–10 m. alta, ramulis robustis junioribus dense ferrugineo-pubescentibus. Folia perbreviter petiolata, serrulata, lanceolata, apice acuta, basin versus leviter angustata sed basi ipsa obtusa, utrinque valde reticulata, supra glabra, costa media excepta; costa media impressa plus vel minus dense ferrugineo-floccosa; venis et venulis elevatis; subtus ferrugineo-pubescentia, costa media et nervis praecipuis valde elevatis; petiolo 2–2·3 mm. longo; lamina 12–18 cm. longa, 3–4 cm. lata. Racemi densiflori, 5–8 cm. longi; rhachi pedicellis petalisque densissime ferrugineo-pubescentibus; pedicellis bifloris, 1.5–2 cm. longis. Petala 5 mm. longa; antherae 2 mm. longae. Pistillum 4.5 mm. longum; ovario dense ferrugineo-hirsuto; stylo in parte inferiori pilis paucis longis vestito; stigmate clavato, glabro. Fructus ellipsoideus, 1.3 cm. longus, 1 cm. diam.

New South Wales.—Uralba, *W. Bauerlen* 629 (type: flowering specimens), Nov. 1891 (small tree 20–30 ft. high, 3–6 in. diam.); several sheets in Herbarium Technological Museum, Sydney, labelled *H. ferruginea* F.v.M.?; Chillingham, Upper Tweed River; Mullumbimby, *W. Bauerlen* (flower-buds), Sept. 1895; Murwillumbah, *W. Bauerlen* (flowering specimens), Nov. 1892—all in Herbarium, Technological Museum, Sydney; Chillingham, Upper Tweed River, *J. Dixon*—in Queensland Herbarium, Brisbane.

QUEENSLAND.—Moreton District: Springbrook, only one plant seen as secondary growth, *C. T. White* 6275 (leaves only), 21-9-1929 (shrub 8 ft.); Lamington National Park, *H. Gresty* (flower-buds), Jan. 1941; Lamington National Park, alt. about 3,000 ft., in rain-forest, only a few trees seen, *C. T. White* 11874 (leaves only), 26-11-1942 (tree 30 ft. high, spreading top, conspicuous on account of the large leaves, brown hairy beneath).

This new species is closely allied to *H. ferruginea* F. Muell. and was labelled as such in the herbarium of the Technological Museum, Sydney, and Queensland Herbarium, Brisbane. The two species are closely allied but can readily be told at a glance by a number of small though constant distinctions. In geographical range they are nearly 1,000 miles apart. They can be distinguished as follows:—

Leaves 7-16 cm. long, 3-6 cm. broad, 2 rarely up to 3½ times longer than broad, mainly drying a dark green, sometimes in parts with a slightly yellowish tinge, scarcely reticulate above, secondary and tertiary veins depressed or very slightly raised on the upper surface. Flower-buds slender, 1 mm. diam. in the upper part. Tropical species .. .. *H. ferruginea.*

Leaves 12-26 cm. long, 3-7.5 cm. broad, 3½-5 times longer than broad, drying a bright yellow, with a faint tinge of green, prominently reticulate above, secondary and tertiary nerves prominently raised. Flower-buds stout, 2 mm. diam. in the upper part. Extra-tropical (temperate or at most subtropical) species .. *H. Bauerlenii.*

Helicia glabrescens sp. nov.

Arbor parva, partibus novellis ferrugineo-pubescentibus, ramulis robustis mox glabris. Folia utrinque glabra vel subtus costa media pilis rufis paucis obsita, late lanceolata, 10–16 cm. longa, 4–7 cm. lata, apice obtuse acuminata, basi in petiolum brevem incrassatum gradatim angustata, margine dentata plerumque plus vel minus undulata raro fere integra, nervis praecipuis ca. 8 in utroque latere, nervis venulisque subtus prominentibus supra in sicco prominulis. Racemi axillares 7–12 cm. longi, rhachi glabra vel pilis ferrugineis tenuiter vel subdense obsita, pedicellis 1.5 mm. longis, unifloris binatim dispositis, tenuiter vel raro subdense ferrugineo-pubescentibus. Perianthium 1–1.2 cm. longum, segmentis glabris. Disci squamae 4 liberae, ovarium aequantes. Ovarium dense hirsutum, stylo glabro, stigmate cylindrico, 2 mm. longo. Fructus ellipsoideus, 1.3 cm. longus, 0.7 cm. diam.

Cook District: Barron River, *E. Cowley* 74B (type: flowers), Sept. 1892 (large shrub); near Cairns, in rain-forest on banks of Pine Creek, *S. T. Blake* 12415 (flowers), 2-8-1936 (tree 30 ft. with a dense crown of rich light green leaves which are paler beneath; buds reddish towards the base, cream in upper part, perianth white inside); Freshwater Creek, near Cairns, *F. M. Bailey;* Mount Spurgeon, in rain-forest, *C. T. White* 10643 (old flowers), Sept. 1936 (small tree. Distributed as *Helicia ferruginea* (a form with glabrous leaves and larger flowers)); Julatten, *T. Carr* (young fruits), Oct. 1936; Malanda, *R. F. Martin* (fruits), 30-1-1923; Atherton Tableland, rain-forest on rich alluvial soil, *R. F. Martin* 26 (tree up to 4 ft. girth, very tough and sound).

The present species is very closely allied to *H. ferruginea* F. Muell. and several of the sheets quoted above were labelled in the Queensland Herbarium as a glabrescent form of that species. It is probably the plant referred to by F. Mueller (Vic. Nat. Vol. 2, p. 75) as a form of *H. ferruginea* with almost sessile leaves and glabrous flowers. Several

specimens had been labelled in the Queensland Herbarium as *H. australasica* F. Muell., a native of the Northern Territory. This species is known to me only from the description in the "Flora Australiensis" (Vol. 5, p. 405), which might however fit several species of the genus. From the locality records given it is very unlikely it is identical with *H. glabrescens.*

The differences between *H. ferruginea* F. Muell. and *H. glabrescens* C. T. White can be set out as follows:—

Leaves always prominently toothed, ferrugineous-pubescent underneath on the midrib, secondary and tertiary veins, the hairs sometimes almost disappearing from the two latter but never totally absent from the midrib, base commonly subobtuse, petiole without any prominent pulvinus. Perianth not exceeding 5-6 mm., densely ferrugineous-pubescent .. .. .. *H. ferruginea.*

Leaves toothed or almost entire, quite glabrous on both sides in the adult stage, base cuneate, tapering into a short petiole with a rather prominent pulvinus. Perianth 1-1.2 cm. glabrous .. *H. glabrescens.*

Family THYMELAEACEAE.

Pimelea penicillaris F. Muell. in Melbourne Chemist and Druggist (October, 1883).

P. dioica C. T. White. Proc. Roy. Soc. Queensl. xlvii, 29 (1936).

NEW SOUTH WALES.—Near Gwydir, *T. W. Shepherd*; Thurulgoona, Warrego River, *L. Henry,* Sept. 1884, both in National Herbarium, Melbourne.

QUEENSLAND.—Darling Downs District: Near Goondiwindi, *W. Dixon* (Queensland Herbarium, Brisbane).

I am indebted to Mr. A. W. Jessep, Director and Government Botanist, Melbourne Botanic Gardens and National Herbarium, for part of the type and fragment from another collection of *P. penicillaris* F. Muell. Mueller's plant was described from female, mine from male specimens and I should say represent the one species.

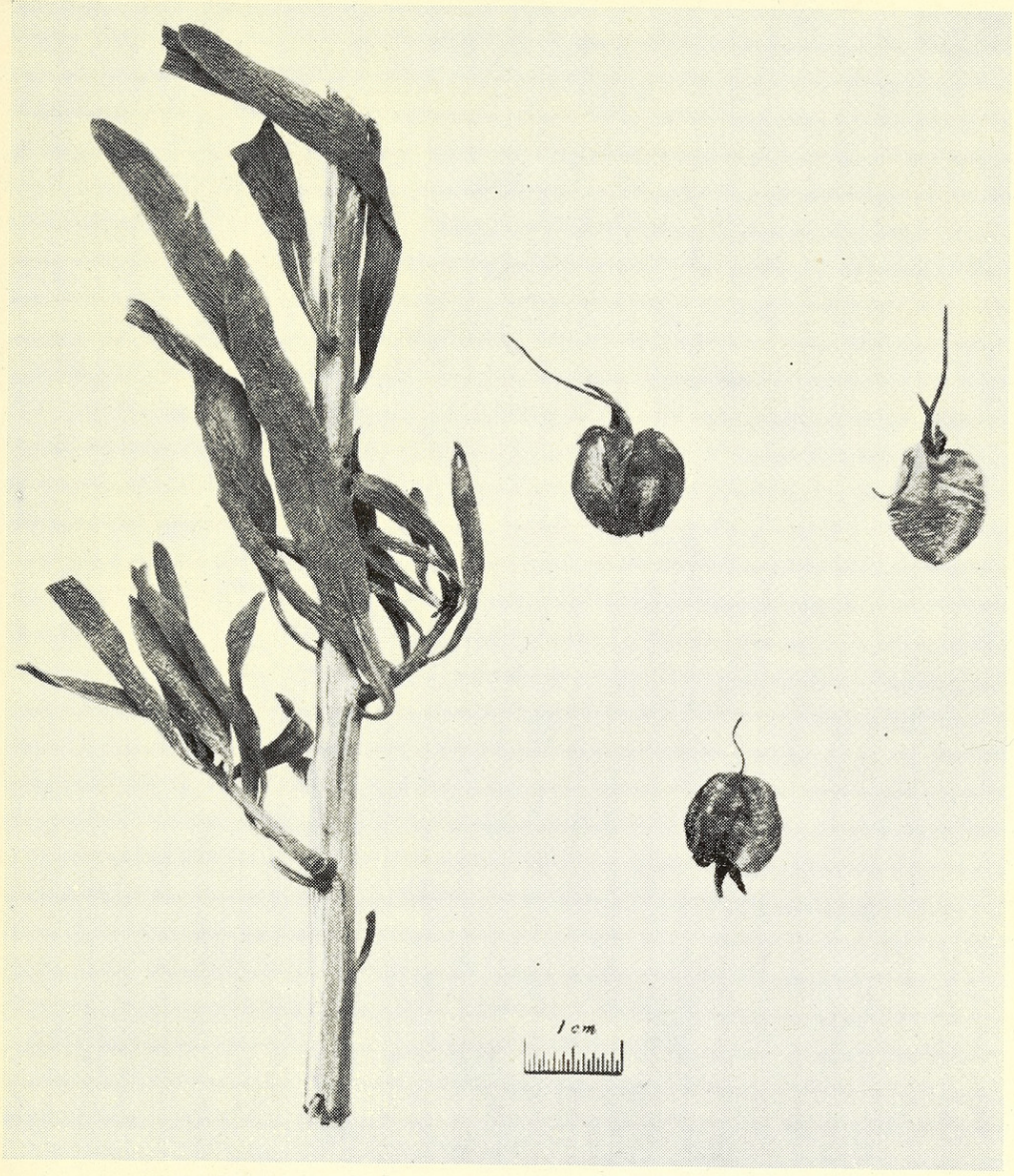
Family EUPHORBIACEAE.

Cleistanthus densiflorus sp. nov. (Sect. *Australes*).

Arbor, ramulis robustis junioribus ferrugineo-pubescentibus adultis glabris cortice griseo, crasso obtectis. Folia lanceolata, utrinque viridia sed subtus pallidiora, glabra, reticulata, apicem versus angustata sed apice ipso subobtusa, basin versus in petiolum crassum brevem angustata; lamina 5–9 cm. longa, 1–2 cm. lata; petiolus 2 mm. longus. Flores in fasciculos densifloros sessiles axillares dispositi; bracteae dense hirsutae. Flos masc.:—Calyx glaber, 3 mm. longus, profunde 5–lobatus. Petala 5, squamiformia spathulata. Stamina 5, columna filamentis longiora. Flos foem.:—Calyx (sub fructu immaturo) 6–lobatus, lobis inaequalibus (3 magnis et 3 parvis alternantibus). Fructus sessilis trilocularis glaber.

Cook District: Bloomfield River, *Rev. W. Poland* (flowers and immature fruits), Nov. 1902.

In the absence of seeds for examination it is not quite certain whether the present species belongs to the section *Australes* Jabl. or section *Nanopetalum* (Hussk). Pax. The latter contains no Australian



Eremophila tetraptera sp. nov. Leafy shoot and detached fruits (all nat. size).

Bassia Walkeri sp. nov. Fruiting branch (nat. size) and fruiting perianths view from above and from the side (× 8).