THE AUSTRALIAN SPECIES OF RHODAMNIA (MYRTACEAE)

by

C. T. WHITE

(Government Botanist, Brisbane).

The genus *Rhodamnia,* founded by W. JACK (Malayan Miscellanies 1822) on the common Malayan *R. cinerea,* find its greatest development in the Australian and Papuan regions. DIELS (in LAUTERB., Beitr. Fl. Papuasien, V, ex ENGL., Bot. Jahrb. LVII, 360, 1922) recognizes five species, with a doubtful sixth, in New Guinea.

I believe at least seven distinct species occur in Australia. In the present account of the Australian members of the genus, two new species are described, and a complete description of one, previously only known from sterile material is given.

Key to the Australian species.

1. Flowers sessile in the axils . . . . . **1. R. sessiliflora**
   Flowers in pedunculate cymes or if single at least distinctly pedicellate . 2
2. Flowers glabrous in all parts . . . . . **3. R. Maideniana**
   Flowers pubescent 3
3. Branchlets and young leaves beneath densely ferruginous-pubescent. . . **4. R. Blairiana**
   Branchlets and young leaves underneath pubescent but not ferruginous, or almost glabrous 4
4. Leaves white or dull grey beneath . . . . . **5. R. argentea**
   Leaves paler beneath, if argenteous then nitidulous 5
5. Young leaves densely pubescent beneath at least on the mid-rib and main nerves . . . . . **2. R. trinervia**
   Leaves glabrous beneath or nearly so 6
6. Leaves somewhat lustrous and often sub-argenteous beneath. Flowers in distinct pedunculate cymes, peduncle 5 mm or more **6. R. acuminata**
   Leaves dull beneath. Inflorescence as in preceding **5. R. argentea forma**
   Leaves dull beneath. Flowers singly pedicellate or if in cymes peduncle very short (not above 3 mm) . . . . . **7. R. spongiosa**

1. **R. sessiliflora** BENTH., Fl. Austr. III, (1866) 277; F. M. BAILEY, Queensl. Fl. II, (1900) 652.

Queensland: Common in northern rain forests, from Johnstone River (N. MICHAEL) to Daintree River (L. J. BRASS); it extends inland to the Atherton Tableland.

2. **R. trinervia** BLUME, Mus. Bot. Lugd. Bat. 1. (1849) 79; F. M. BAILEY, Queensl. Fl. II, (1900) 652; W. D. FRANCIS, Austr. Rainforest Trees, 273, Figs 179 and 180 — *Myrtus trinervia* SMITH in Trans. Linn. Society, III, (1797) 280.

New South Wales: Common in the coastal brushes and rain-forests from the Illawarra District to the Tweed River; extends inland to the Blue Mountains.

Queensland: Common along the coast from the New South Wales border to the Wide Bay District. It does not seem to extend into the tropical parts of the state.

The Australian plant seems to me quite distinct from the Malayan *R. cinerea* JACK (including perhaps *R. spectabilis* BLUME).

Through the kindness of Mr HOLTTUM, Singapore, and Dr VAN SLOOTEN, Buitenzorg, I have been able to see a good range of Malayan specimens. A further difference lies in the fact that in *R. cinerea*, the flowers are pedicellate but amassed in clusters or fascicles, not in pedunculate cymes as in the Australian *R. trinervia* BL.

Some specimens from Annam, Indo-China (J. & M. S. CLEMENS 3689: May-July 1927) have the inflorescence character of the Australian plant and approach it more closely that any others I have seen.

A further indication of the endemism of the Australian species is the fact that it does not extend into the tropical regions of the Continent, but is confined to the cooler sub-tropical rain-forests below 25 degrees South Latitude. It does not extend into New Guinea.

R. trinervia is a very common tree in the coastal rain-forests of New South Wales, and extra-tropical Queensland. It attains a height of nearly 30 m and is familiarly known as *"Scrub Turpentine."* [1])

It is particularly abundant as secondary growth, and flowers profusely as a shrub 2 m high or even less.

3. **Rhodamnia Maideniana**, sp. nov. — *R. trinervis* BLUME var. *glabra* MAIDEN & BETCHE in Proc. Linn. Soc. N.S.W. XXIV (1899) 146 —

[1]) In Queensland, the term "scrub" is popularly applied to rain-forest; the Eucalyptus savannah forest being called "forest" or "forest country".

Frutex vel arbor parva; partibus novellis pubescentibus; ramulis junioribus subangulatis vetustioribus cortice subfibroso vestitis. Folia lanceolata vel late lanceolata, breviter petiolata; petiolo 0.5 cm, lamina 4—7 cm longa, 1.5—4 cm lata, utrinque glabra basi cuneata, apice longe acuminata; folia angustoria penninervia sed nervis lateralibus in venam prominulam prope marginem conjunctis, vena intramarginali 1—1.5 mm a margine remota; folia latiora subtrinervia, vena intramarginali ad 4 mm a margine remota. Flores glabri pedicellati fasciculati, vel raro in cymas trifloras in furcis ramulorum dispositi; bracteolis lineari-lanceolatis 1 mm longis. Pedicellis 0.5—1 cm longis ad apicem sub calyce bracteolatis; Calyx late turbinatus; lobis rotundis 1 mm latis. Petala subrotunda 4 mm longa. Stamina numerosa, petalis aequilongia.

New South Wales: Richmond River, W. BAUERLEN, April 1891 (fruiting specimens); Mullimbimby, W. BAUERLEN, Dec. 1895 (flowering specimens); Burringbar, E. BETCHE, April 1896 (All ex. Nat. Herb. Sydney).

Queensland: Tallebudgera, R. SCORTECHINI No. 434 (ex Nat. Herb. Melbourne); Springbrook, C. T. WHITE (*type*, flowering specimens) Dec. 1915 (Small tree, fairly common); Burleigh Heads, C. T. WHITE Dec. 1917 (flowering specimens).

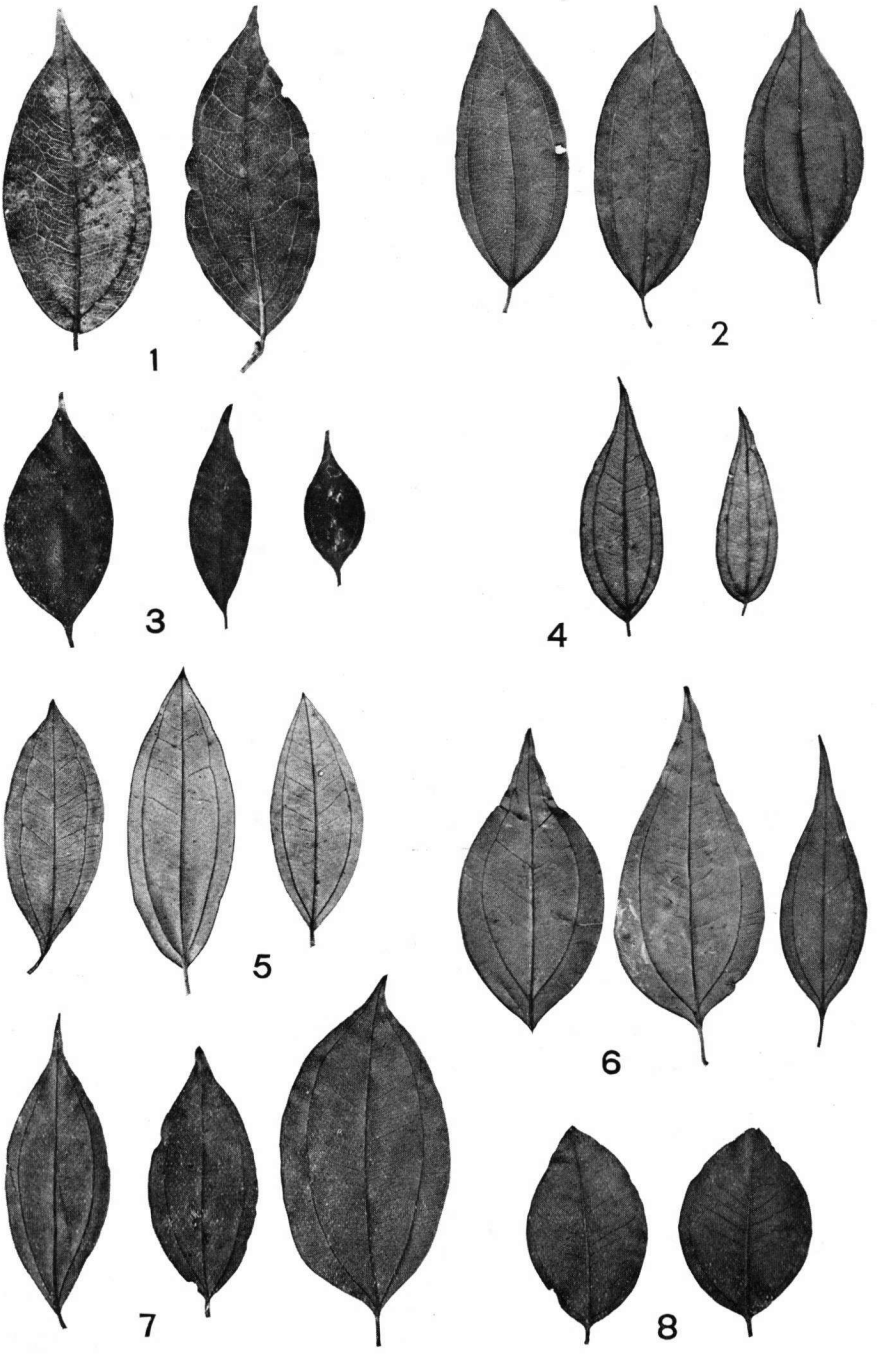
This small tree which is fairly common in Northern New South Wales and Southern Queensland seems sufficiently distinct and constant in its characters to warrant specific rank. The leaves are much less distinctly trinerved than in *R. trinervia* and the flowers are without a peduncle, or rarely with a short peduncle forming a simple 3-flowered cyme.

Some specimens collected at Yarramalong, N. S. Wales by W. A. DE BEUZEVILLE, and distributed from the National Herbarium, Sydney as *R. trinervia* BL. var. *glabra* MAID & BETCHE represent a rather glabrescent form of *R. trinervia* BL.

Explanation of the plate.

Australian Species of Rhodamnia, showing under-surface of leaves. Reduced approximately half natural size in all cases.

1. *Rhodamnia sessiliflora* BENTH.
2. *Rhodamnia trinervia* BLUME.
3. *Rhodamnia Maideniana* C. T. WHITE
4. *Rhodamnia Blairiana* F. v. M.
5. *Rhodamnia argentea* BENTH.
6. *Rhodamnia acuminata* C. T. WHITE
7. *Rhodamnia spongiosa* DOMIN
8. *Rhodamnia argentea* BENTH., forma



Explanation on p. 216.

4. Rhodamnia Blairiana F. v. M., Fragm. Phytogr. Austr. IX (1875) 141; F. M. BAILEY, Queensl. Fl. II, (1900) 653.

Queensland: Mountains about Rockingham Bay, J. DALLACHY; Palm Camp, Bellenden Ker, F. M. BAILEY.

5. R. argentea BENTH., Fl. Austr. III, (1866) 278; F. M. BAILEY Queensl. Fl. II, (1900) 653; W. D. FRANCIS, Australian Rainforest Trees, 280, figs 181 & 182.

New South Wales: Coastal rain forests from the Clarence River to the Tweed River.

Queensland: From the N. S. Wales border to Baffle Creek, (Port Curtis District).

This species is represented in the Queensland Herbarium, Brisbane, by a large number of specimens, unfortunately most of them sterile. They show a very considerable range of leaf variation.

The typical form as defined by BENTHAM with obtuse or sub-obtuse leaves, more or less silvery white beneath, is a very common tree in the heavier rain-forests of Northern New South Wales and South-east Queensland. It is familiarly known as *"White Myrtle."*

Other forms have more acuminate leaves, and others (probably representing coppice or young growth) are very obtuse and broadly elliptic, or almost subrotund and paler, but not at all argenteous beneath. This particular form is characteristic of the lighter and drier rain-forests, either further inland, or in localities with a lighter rainfall. Possibly the argenteous feature is not a character of much specific worth.

6. Rhodamnia acuminata, sp. nov. — Arbor parva; ramulis junioribus cortice griseo vestitis. Folia lanceolata vel ovato-lanceolata, breviter petiolata; petiolo 1—1.3 cm longo; lamina 5—8 cm longa, 2—4 cm lata; supra glabra, subtus argentea subnitida, basi cuneata apice gradatim et longe acuminata, triplinervia, nervis lateralibus exterioribus in venam intramarginalem conjunctis. Flores in cymas trifloras axillares dispositi; pedunculis bracteis bracteolisque fulvo-furfuraceis; pedunculis 0.5—0.7 cm longis; bracteis et bracteolis 1 mm longis. Calycis subglobosus, tubus late turbinatus vel subglobosus tomentosus saepe costatus; lobis oblongis 2 mm longis, extus furfuraceo-tomentosis, intus glabris, margine ciliolatis. Petala extus furfuraceo-tomentosa, intus glabra, oblonga, 5 mm longa. Stamina numerosa, petalis aequilonga.

Queensland: Lake Cootharaba, KEYS and WEDD, (*type*; flowering specimens); Eumundi Mrs MACKERRAS, March, 1918 (specimens in bud and some flowers nearly opened); Baffle Creek, C. T. WHITE, April

1920 (specimens in bud); Fraser Island, W. R. PETRIE, No. 60 and C. T. WHITE No. 2511; Nickenbar, H. TRYON.

7. Rhodamnia spongiosa DOMIN in Bibliotheca Botanica, 89 (V) (1928) 1030 — *R. trinervia* BLUME var. *spongiosa* F. M. BAILEY, Queensl. Fl. II, (1900) 652.

Small tree, younger branchlets subangular, and covered with a thin deciduous, reddish brown bark, later rounded and covered with a white spongy bark. Leaves petiolate, petiole 0.5 cm, blade 6—10 cm long, 3—5 cm broad, broad-lanceolate, apex acuminate, base acute or subacute, upper surface dark green, rather shining, under surface glaucescent, dull trinerved and with an intramarginal vein very close to the edge. Flowers borne in cymes on very short peduncles, sometimes practically sessile, cymes borne in the forks of the branches, peduncles, pedicels and calyces hoary. Calyx broadly turbinate 3 mm in diam. in the upper part, lobes rounded, 2 mm in diam. Petals oblong, 0.5 cm long, hoary-pubescent outside, glabrous inside. Stamens numerous, about as long as the petals. Berry 1 cm in diam.

Queensland: Trinity Bay, W. SAYER (flowering specimens Oct. 1886) ex. Nat. Herb. Melbourne; Granite Creek, Bellenden Ker, F. M. BAILEY (leaf-specimens only); Barron River, E. COWLEY, Nos. 39D and 60D (leaves only); Mt. Toressa, Bellenden Ker, H. NEWPORT (leaves only); Gadgara, T. FULLER No. 41B (fruiting specimens); Yungaburra, N. MICHAEL No. 359 (fruiting specimens) Jan. 1918 (small tree, berries red); Kuranda, C. T. WHITE No. 1529 (leaves only) Feb. 1922; Timber Reserve, Parish of Smithfield, R. H. DOGGRELL No. A. 41 (flowering specimens, 26/12/1929, small tree, 25 ft; 16 inches girth breast high, bark grey-brown, deciduous in papery-flakes, wood brown, hard and heavy, flowers white or pale pink).

The above is the first full description published of this species. It is rather unfortunate that DOMIN l. c. should have raised BAILEY's variety to specific rank with only a couple of lines of description and no reference to a type. All the specimens seen by BAILEY were sterile, but I think can be matched accurately with SAYER's in the National Herbarium, Melbourne, and DOGGRELL's in the Queensland Herbarium, Brisbane. DOGGRELL's specimens are particularly good, and the above description has been drawn up from them.