

PLANTS OF THE RECHERCHE ARCHIPELAGO, W.A.

(some adjustments to published records, and a list of the species collected there by Robert Brown).

by

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As *Part 3a* of the *Australian Geographical Society Reports* No. 1 (1953)*, I published an account of the land flora on the islands comprising the Archipelago of the Recherche. Critical examinations in the interim, including study of certain groups by specialists, have revealed the need for some changes affecting both identities and nomenclature. These amendments are set out here under the appropriate plant families, with explanatory notes, and I am grateful to Mrs. Rica Erickson of Bolgart (W.A.) for checking the seven *Stylidium* species, three of which had been mis-determined.

On page 4 of my account, reference was made to the visits of Robert Brown in January, 1802, and May, 1803, and the 29 species known to have been collected by that eminent botanist were indicated in the enumeration (pp. 23–30). It had been assumed that Brown collected no specimens on the latter occasion. In 1955, through the courtesy of Miss Nancy T. Burbidge (Division of Plant Industry, C.S.I.R.O., Canberra), I was enabled to peruse a typewritten index to Brown's unpublished botanical descriptions. In addition to the 29 species already recorded as from Middle Island in the Recherche Archipelago, 19 others in Brown's ms. descriptions bear the locality "Bay 2", "Goose Id. Bay" or "Large Island in Goose Id. Bay" (an obvious, if circumlocutory, allusion to Middle Island itself). Eight species are definitely dated May, 1803, proving that Brown *did* land and collect a few specimens on his second, late-autumnal visit to Middle Island. In the appended list I include all 48 Brownian collections, and have indicated the seven which are prerepresented by duplicate material in the National Herbarium at Melbourne; eight of these species were not re-discovered during our Australian Geographical Society's expedition of November, 1950, while three (*Gyrostemon sheathii*, *Alyogyne hakeifolia* and *Hibbertia cuneiformis*), which I had collected on the nearby mainland coast, are now presented as new records to the Archipelago.

Also, on p. 4 of the writer's previous article, it was suggested that Allan Cunningham may have collected at Middle Island in January, 1818, but conclusive evidence was not then available. Among a recent donation of early Australian collections received by Melbourne Herbarium from the British Museum (Natural History) are sheets of *Muehlenbeckia adpressa* (Labill.) Meissn., *Rhagodia baccata* (Labill.) Moq. and *Pimelea clavata* Labill., bearing Cunningham's numbers 14, 15 and 12 respectively, all with the caption:

"Middle Island, Recherche Archipelago. 1st Voyage 'Mermaid' 1818."

* For review, see *Vict. Nat.* 70: 109 (Oct. 1953).

In Ida Lee's *Early Explorers in Australia*, p. 312 (1925), is a transcription from Cunningham's journal entry of Friday, 16th January, 1818. This important entry proves that Cunningham landed and spent about an hour before dusk, observing "the botany of the sandy shores of the island" [i.e., the beach and dune vegetation along Goose Island Bay]. He mentions ten species of plants that were collected then, including the *Muehlenbeckia*—viz., "*Polygonum* sp., leaves cordate, undulately curved, three-nerved, stem fruticose, twining, flowers axillary." Presumably these items are still preserved in the herbarium, Royal Botanic Gardens at Kew.

AMENDMENT TO ENUMERATION OF 1953.

Ferns and Fern Allies

ISOËTACEÆ

- P. 23—For *Isoëtes drummondii* A. Br. (*forma*), read *I. humilior* F. Muell., 1852.

[The rootstock is bilobed and each sporangium veiled by an indusium.]

Flowering Plants

GRAMINEÆ

- P. 23—For **Scleropoa rigida* (L.) Griseb, read **Catapodium rigidum* (L.) Hubbard in Dony, 1953.

[A very recent generic change.]

- P. 23—For *Serrafalcus arenarius* (Labill.) C. A. Gardner, read *Bromus arenarius* Labill., 1804.

[A reversion to the original name, owing to present revised concept of the genus *Bromus* (*sensu stricto*).]

For AIZOACEÆ (p. 25), read FICOIDACEÆ [the prior and legitimate family name].

CRASSULACEÆ

- P. 26—For *Crassula bonariensis* (DC.) Cambess, read *C. purpurata* (Hook. f.) Domin, 1925.

[Dr. R. Melville, at the Kew Herbarium (23/3/1956) kindly made comparisons of the Australian plant with typical South American *C. bonariensis*; he found that the former is specifically distinct in its sharply acuminate leaves, rather smaller flowers and different proportion of floral parts.]

MYRTACEÆ

- P. 28—From *Kunzea sericea* (Labill.) Turcz., delete the parenthetic authority "(Labill.)".

[The name of this plant is not, as stated by Bentham in *Flora Aust.* 3: 117 (1866), based upon *Leptospermum sericeum* Labill. which is a true species of *Leptospermum*—endemic and widespread in Tasmania.]

RUBIACEÆ

- P. 29—For *Galium australe* DC., read **G. tenerum* Schleicher, 1821.

[A mis-determination by the writer in 1953; the Recherche Archipelago material shows 5 leaves per whorl, not 4 as in the very similar-looking but less-petiolate indigenous *G. australe*.]

LOBELIACEÆ

- P. 29—For *Lobelia anceps* Thunb., read *L. alata* Labill., 1804.

[In E. Wimmer's monograph on *Lobeliaceæ* (*Pflanzenr.* 107 Heft, 1953) the Australian population is distinguished specifically from *L. anceps* of Africa.]

STYLIDIACEÆ

P. 30—For *Stylidium pubigerum* Sond. in Lehm., read *S. corymbosum* R. Br., 1810.

[A mis-determination by the writer in 1953.]

P. 30—For *Stylidium perpusillum* Hook. f. in Hook., read *S. calcaratum* R. Br., 1810 (a diminutive form).

[A mis-determination of Mondrain and North Twin Peaks material by the writer in 1953; but G. Maxwell's recorded collection purporting to be *S. perpusillum* (from Middle Island, 1863) is not represented in Melbourne Herbarium, and I can express no opinion as to its correct identity.]

P. 30—For *Stylidium despectum* R. Br., read *S. brachyphyllum* Sond. in Lehm., 1845.

[A mis-determination by the writer in 1953; but these minute plants are very similar, often grow together and were confused by Ewart, Gardner and other Australian botanists. *S. despectum* has the petals paired longitudinally ("fore-and-aft") and lacks a rosette of basal leaves, while *S. brachyphyllum* is distinctly rosulate and has laterally-paired petals.]

COMPOSITÆ

P. 30—For *Brachycome pusilla* Steetz in Lehm. (var.), read *B. eyrensis* G. L. Davis, 1955.

[Recently recognized as a distinct species and typified by the Figure-of-eight Island material—in *Proc. Linn. Soc. N.S.W.* 79: 207 (Jan. 1955).]

Mosses

POTTIACEÆ

P. 32—From *Tortula princeps* De Not., delete the Middle Island record ("small form on moonah bark").

[This collection is referable to another, related species of the genus, viz. *T. papillosa* Wils. ex Spruce in Hook., 1845, which should now be added to the bryophyte flora of the Archipelago.]

Fungi

THELEPHORACEÆ

P. 33—For *Corticium calceum* Fr., read *Sebacina* sp. (in the family *Tremellaceæ*).

[A mis-determination by the writer in 1953.]

ROBERT BROWN'S 48 SPECIES FROM MIDDLE ISLAND

Conifers

CUPRESSACEÆ

Callitris preissii Miq. in Lehm., 1845 [TYPE of *C. tuberculata* R. Br. ex Baker & Smith, 1910].

Flowering Plants

CENTROLEPIDACEÆ

Centrolepis strigosa (R. Br.) Roem. & Schult., 1817.

PROTEACEÆ

Hakea clavata Labill., 1804.

Hakea suaveolens R. Br., 1811 [? TYPE].

LORANTHACEÆ

Amyema miraculosa (Miq.) van Tiegh., 1895, var. *melaleuca* (Tate) Willis, 1953 [leg. May, 1803, and bearing the name "*Loranthus melaleuca*" in Brown's ms.].

CHENOPODIACEÆ

- Rhagodia baccata* (Labill.) Moq., 1849.
Rhagodia crassifolia R. Br., 1810 [? TYPE in part].
Suaeda maritima (L.) Dum., 1827 [incl. *S. australis* (R. Br.) Moq.]—not observed in 1950.

PHYTOLACCACEÆ

- ? *Gyrostemon sheathii* W. V. Fitzg., 1903 [in Brown's ms. as "*G. crassifolium*", but presumably referable to *G. sheathii* which still occurs at Esperance]—a new record for the Archipelago, and not observed in 1950.

MIMOSACEÆ

- Acacia nitidula* Benth., 1864 [TYPE in part].
Acacia obscura DC., 1829.
 " *Mimosa amabilis* " [leg. May, 1803]—identity uncertain.
Albizzia lophantha Benth., 1844.

PAPILIONACEÆ

- Bossiaea dentata* (R. Br. ex Ait.) Benth. [TYPE in part, duplicate material being in Melbourne Herbarium].

RUTACEÆ

- Phebalium rude* Bartl. in Lehm., 1844 [in Brown's ms. as "*P. obcordatum*", duplicate material being in the Melbourne Herbarium].

ZYGOPHYLLACEÆ

- Nitraria schoberi* L., 1759 [in Brown's ms. as "*N. australis*"].
Zygophyllum billardieri DC., 1824 [in Brown's ms. as "*Zygophylloides*"].

EUPHORBIACEÆ

- Phyllanthus* ? *calycinus* Labill, 1806 [leg. May, 1803, and bearing the name "*P. inflexus*" in Brown's ms.].

STACKHOUSIACEÆ

- Stackhousia huegelii* Endl., 1837 [in Brown's ms. as "*S. glauca*"].

SAPINDACEÆ

- Dodonaea oblongifolia* Link, 1821 [duplicate material of Brown's in Melbourne Herbarium, labelled "*D. ceratocarpa* Endl."].

RHAMNACEÆ

- Pomaderris myrtilloides* Fenzl. in Endl. & al., 1837.
Spyridium globulosum (Labill.) Benth., 1863 [leg. May, 1803, and bearing the name "*Cyanothoides obovata*" in Brown's ms.].

MALVACEÆ

- Hibiscus huegelii* Endl., 1837.
Alyogyne hakeifolia (Giord.) Alef., 1863 [leg. May, 1803, and bearing the name "*Hibiscus filifolius*" in Brown's ms.]—a new record for the Archipelago, and not observed in 1950.

DILLENIACEÆ

- Hibbertia cuneiformis* (Labill.) Gilg, 1893—a new record for the Archipelago, and not observed in 1950.

FRANKENIACEÆ

- Frankenia tetrapetala* Labill., 1804 [in Brown's ms. as "*Frankenoides tetrandra*"].

THYMELÆACEÆ

- Pimelea argentea* R. Br., 1810 [TYPE].
Pimelea clavata Labill., 1804.

MYRTACEÆ

- Eucalyptus platypus* Hook., 1852, var. *heterophylla* Blakely, 1934.
Agonis marginata (Labill.) Schauer in Lehm., 1844.
 ? *Kunzea baxteri* (Klotzsch) Schauer in Lehm., 1844 [*leg.* May, 1803, and bearing the name "*Metrosideros quinquelocularis*" in Brown's ms.].
Melaleuca pubescens Schauer in Walp., 1843 [in Brown's ms. as "*M. albiflora*"].
Astartea fascicularis (Labill.) DC., 1828.

EPACRIDACEÆ

- Leucopogon interruptus* R. Br., 1810 [TYPE, represented by a duplicate in Melbourne Herbarium].
Leucopogon rotundifolius R. Br., 1810 [TYPE in part; a Lucky Bay syntype in Melbourne Herbarium].
Leucopogon apiculatus R. Br., 1810 [TYPE in part; a Lucky Bay syntype in Melbourne Herbarium].

PRIMULACEÆ

- Samolus repens* (Forst.) Pers., 1805 [in Brown's ms. as "*S. pusillus*", duplicate material being in Melbourne Herbarium].

GENTIANACEÆ

- Villarsia parnassifolia* (Labill.) R. Br., 1810—not observed in 1950.

APOCYNACEÆ

- Alyxia buxifolia* R. Br., 1810 [TYPE in part].

SOLANACEÆ

- Solanum simile* F. Muell., 1854 [*leg.* May, 1803, and in Brown's ms. as "*S. laciniatum* var."; duplicate material of the collection in Melbourne Herbarium].
Anthocercis viscosa R. Br., 1810 [? TYPE in part].
Anthocercis littorea Labill., 1806—not observed in 1950.

MYOPORACEÆ

- Myoporum parvifolium* R. Br., 1810 [? TYPE in part]—not observed in 1950.

LOBELIACEÆ

- Lobelia* ? *alata* Labill. 1804 [in Brown's ms. as "*L. pulchella*"].
Isotoma scapigera (R. Br.) G. Don, 1834.

GOODENIACEÆ

- Scævola æmula* R. Br., 1810 [*leg.* May, 1803. TYPE of *S. sinuata* R. Br., now regarded as a synonym of *S. æmula*; duplicate material of Brown's in Melbourne Herbarium].

STYLIDIACEÆ

- Stylidium adnatum* R. Br., 1810 [TYPE in part].

COMPOSITÆ

- Olearia axillaris* (DC.) F. Muell., 1865.
Calocephalus brownii (Cass.) F. Muell., 1859.