

CONTRIBUTIONS TO A KNOWLEDGE OF THE
FLORA OF AUSTRALIA.

PART IV.

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(Plates xxii.-xxiii.)

CELASTRINEÆ.

ELÆODENDRON AUSTRALE, *Vent.*—This species occurs as far west as Narrabri (W. Bäuerlen), thus showing that it belongs to the arid country flora as well as that of the mountain and coast.

BUTACEÆ.

ACRONYCHIA LÆVIS, *Forst.*—Mt. McKenzie, Tenterfield (W. Bäuerlen).

RHAMNEÆ.

POMADERRIS FERRUGINEA, *Sieb.*—Previously recorded from Port Jackson to Victoria, but it extends as far north as Tenterfield (W. Bäuerlen).

ANACARDIACEÆ.

EUROSCHINUS FALCATUS, *Hook. f.*—Specimens of this species have recently been forwarded to me from Stockton, near Newcastle, thus showing it to have a much more southern distribution than previously suspected. In that locality the tree is known as "Rosewood" or "Brown Beech," and grows in poor sandy soil adjacent to salt water. At one time it was very plentiful, but owing to its proximity to settlement it has been much thinned out. The timber has a very decided scent when freshly cut, and is specifically light, porous, and pale-coloured with sometimes a tinge of yellow. It is a splendid working timber, suitable for cabinet work, and is worthy of forest conservation.

LEGUMINOSÆ.

OXYLOBIUM TRILOBATUM var. ILICIFOLIUM, *Maiden & Betche*.—Drake (W. Bäuerlen). Only previously recorded from the Tweed River.

DAVIESIA LATIFOLIA, *R.Br.*—Extends as far north as Tenterfield (W. Bäuerlen).

PULTENÆA VILLOSA, *Willd.*—This species extends into the interior of New South Wales, as it is found to occur at Grenfell (W. Bäuerlen).

ACACIA LEPROSA, *Sieb.*—Mudgee is the most northern locality previously recorded for this species. It, however, extends as far north as Tenterfield (W. Bäuerlen).

A. LANIGERA, *A. Cunn.*—Tenterfield, which is now its most northern locality in New South Wales.

A. VERNICIFLUA, *A. Cunn.*—Grenfell (W. Bäuerlen).

A. PENNINERVIS, *Sieb.*—This species has a range much further west than previously recorded, as it is found on Mount Bolton near Moura, Parkes, where also occurs

A. MELANOXYLON, *R.Br.*, the most westerly record for that species.

A. PYCNOSTACHYA, *F.v.M.*—Narrabri (W. Bäuerlen). This is the most southern and western point recorded for this species.

HALORAGÆ.

HALORAGIS SERRA, *Brongn.*—Occurs as far south now as Cowra (W. Bäuerlen) and Gundagai (H. Deane).

MYRTACEÆ.

KUNZEA OPPOSITA, *F.v.M.*—Timbarra is the only locality so far recorded for this species. It, however, occurs as far south as Tenterfield (W. Bäuerlen).

EUCALYPTUS SMITHII, *R. T. Baker.*—This species, now famous for the excellence of its oil, is found to occur in almost all the gullies around Mittagong (H. G. Smith), where, however, it must

not be confounded with the rough-barked variety of *E. viminalis*, Labill., var. *pedicellaris*, of Deane & Maiden.

E. BRIDGESIANA, *R. T. Baker*.—This is now known to extend as far west as Moura, Grenfell (W. Bäuerlen).

E. VITREA, *R. T. Baker*.—Extends as far south as Delegate, and probably into Victoria (W. Bäuerlen).

E. OVALIFOLIA, *R. T. Baker*.—This "Red Box" tree occurs as far west as Moura, near Parkes (W. Bäuerlen), where it differs in no respect from the type which was described from Rylstone specimens. To further prove its claims to specific rank as distinct from *E. polyanthema*, Schau., it may be mentioned that the former is found at Linley Creek near Goulburn, being known also as "Red Box," where the latter species also occurs and is discriminated by settlers.

E. FLETCHERI, *R. T. Baker*.—Picton (*R. T. Baker*). This species is synonymised by Mr. Maiden in the Proceedings of this Society (1902, p. 216) with *E. Baueriana*, Schau., the type of which from the Vienna herbarium was exhibited at the June meeting. This specimen is only in flower and bud, whilst the description of it (Walp. Repert. ii. 924, Suppl. i. 1845) is practically useless for the purposes of Eucalyptus determination. *E. Fletcheri* as described places beyond dispute the tree referred to, whilst the fragmentary herbarium material now brought forward as its type, and which may do duty for any of the "Boxes" placed in the past with *E. polyanthemos*, Schau., will only lead to still further confusion in the species of the genus, and cause doubts in the minds of future workers.

From the Vienna type material and its published description I fail to see the connection between these two species, much less *E. conica*, Deane & Maiden, which was also synonymised at the same time under *E. Baueriana*, Schau., a species recorded by Bentham as tropical.

E. OVALIFOLIA, *R. T. Baker*, var. *LANCEOLATA*, *R. T. Baker* et *H. G. Smith*.—This "Box" tree occurs at Putty, midway between Richmond and Singleton (A. C. Barwick). The only previous recorded locality for this species is Camboon, Rylstone.

E. DIVES, *Schau.*—This species is known at Adelong as “Messmate,” which district is now its most western limit.

E. OCHROPHLOIA, *F.v.M.*—This species is found as far east as Goondiwindi, Queensland (C. N. Chapman), under the local name of “Yuppunyah.”

E. MACRORHYNCHA, *F.v.M.*—This species occurs at Gramen, N.W. of Glen Innes (Henry Hurst). This locality greatly extends the northern limit of this important economic Eucalypt, which will probably now be found to extend into Queensland.

E. TERETICORNIS, *Sm.*, var. *LINEARIS*, *R. T. Baker et H. G. Smith.*—This variety has now been found at Stroud, where the timber is regarded as much superior to that of the type, as posts made from it have stood for 50 years in the ground and still remain perfectly sound. Since this var. was recorded (‘Eucalypts and Essential Oils,’ by Baker and Smith) further investigation has shown that its differences from the type are much greater than was originally supposed; in fact, they are of such a nature as to fully justify its being raised to specific rank.

E. MORRISII, *R. T. Baker.*—Occurs as far west as Mt. Drysdale, on rocky ridges, and is known as “Scrub Gum” (G. Wardrop).

E. DEALBATA, *A. Cunn.*—The most easterly known locality for this species is now to be recorded, namely, Putty, south-west of Singleton, where it grows to a height of from 40 to 50 feet, with a smooth, dark-coloured bark falling off in patches, giving the tree a spotted appearance (A. C. Barwick).

In the Cassilis district there appears to be a form of this species with a very short blunt operculum; further investigation is being taken to prove whether it is really a variety or a new species.

E. SQUAMOSA, *Deane & Maiden.*—This tree, only previously recorded from National Park and Richmond, is now found to extend as far north as Putty, 50 miles south of Singleton, where it is known as “Blood-tree.” Mr. A. C. Barwick, who collected the specimen, states that he has never found the tree to attain a height of over 30 feet.

E. QUADRANGULATA, *Deane & Maiden*.—This rather rare species has recently been found at Putty, south of Singleton (A. C. Barwick), so far its northern limit.

E. RADIATA, *Sieb.*—Occurs at Putty, via Singleton, on the banks of creeks, where it is known as “Peppermint,” “Water Gum,” and “Box” (A. C. Barwick).

ONAGREÆ.

EPILOBIUM GLABELLUM, *Forst.*—Another remedy, it appears, is now to be added to those already recorded for this species, as Mr. J. A. Daley reports that it is greatly used at Bowna, Albury, in cases of dysentery, and with marked success in chronic cases.

COMPOSITÆ.

OLEARIA GLUTESCENS, *F.v.M.*—Girilambone (W. Bäuerlen). Previously only recorded from the southern coast district and southern interior.

O. ALPICOLA, *F.v.M.*—Previously recorded from the Southern Dividing Range, at high elevations; but it has recently been found at Mount Mackenzie, Tenterfield (W. Bäuerlen).

O. MYRSINOIDES, *F.v.M.*—This southern species also occurs at the same place (W. Bäuerlen).

BRACHYCOME SCAPIGERA, *DC.*—This hitherto reported southern species is now found to occur as far north as Tenterfield (W. Bäuerlen).

ERECHTITES MIXTA, *DC.*—This species has an extensive range along the coast district of New South Wales, having been collected at Tenterfield in the north and Clyde Mountain in the south (W. Bäuerlen).

ARALIACEÆ.

ASTROTRICHA LEDIFOLIA, *DC.*—The previously known range, Port Jackson to Victoria, of this species is now much extended, as it is now found to occur as far north as Tenterfield and west to Narrabri (W. Bäuerlen).

LORANTHACEÆ.

LORANTHUS BIDWILLI, Benth.—The only locality in New South Wales previously recorded for this species is Murrumbo (R. T. Baker); it has, however, recently been obtained at Narrabri on *Casuarina Luehmanni*, R. T. Baker (W. Bäuerlen).

RUBIACEÆ.

KNOXIA CORYMBOSA, Willd.—Woodburn is now its most southern locality in New South Wales (W. Bäuerlen).

ASCLEPIADEÆ.

LYONSIA STRAMINEA, R.Br.—Putty, south-west of Singleton, its northern limit so far (A. C. Barwick).

ILLECOBRACEÆ.

SCLERANTHUS BIFLORUS, Hook. f.—Mount Mackenzie, Tenterfield (W. Bäuerlen).

POLYGONEÆ.

EMEX AUSTRALIS, Steinb.—This maritime plant has been found at New Angledool (A. Paddison) in the northern interior, where it is locally known as “Wild Rhubarb.”

In Western Australia it is known as “Doublegee.”

MUEHLENBECKIA ADPRESSA, Meissn.—The Nepean River has been regarded as the usual northern limit of this species; it extends, however, as far north as Tenterfield (W. Bäuerlen).

EUPHORBIACEÆ.

PHYLLANTHUS THYMOIDES, Sieb.—A rather interesting red variety of this plant occurs at Bateman's Bay (W. Bäuerlen).

P. GUNNII, Hook. f.—Only previously recorded from the Two-fold Bay district, but it has now been found in the dry interior at Palesthan, Condobolin (M. A. C.).

CASUARINEÆ.

CASUARINA LUEHMANNI, R. T. Baker.—Under the local name of “Bull-Oak” (W. Bäuerlen) this tree occurs at Narrabri, which is thus its nearest recorded eastern limit.

LYCOPODIACEÆ.

LYCOPodium CERNUUM, *Linn.*—Evans River, between the Richmond and Clarence Rivers (W. Bäuerlen). This is its most southern locality recorded.

FILICES.

*POLYPODIUM AUSTRALE, *Metten.*, var. ALPICOLA, *F.v.M.*—Bullrock Mountain, Snowy Mountains (W. Bäuerlen).

LOMARIA CAPENSIS, *Willd.*, var. BAEUERLENI, *Bailey.*—This variety was first discovered by Mr. Bäuerlen at Milton in 1884, but so far it has not been recorded for New South Wales. It was described by Bailey in his Supplement to the 'Fern World of Australia' (p. 4). Baron von Mueller in writing to the finder stated that if it should prove to be not merely local it might be looked upon as a distinct species.

FUNGI.

*AGARICUS (PLEUROTUS) LIVIDULUS, *B. & C.*—Tantawanglo Mountain (W. Bäuerlen).

*A DIVERSIPES, *Berk.*—Brown's Camp, Delegate (W. Bäuerlen).

*BOLETUS GRANULATUS, *Linn.*—Tingiringi Mt., Delegate (W. Bäuerlen).

*POLYPORUS SQUAMOSUS, *Huds.*—Tingiringi Mt. (W. Bäuerlen).

POLYPORUS MYLITÆ, *Cke. & Mass.*

(Plates xxii.-xxiii.)

The sclerotium of this species is of common occurrence in the eastern States of Australia as well as in Tasmania under the name of "Black Fellows' Bread," but only one specimen in fructification has so far been recorded, and that was obtained from South Australia.

A good specimen of the "bread" weighing 8 lbs., and measuring 8 inches long and 5 in diameter, was recently received by me

* New for New South Wales.

from Mr. A. O. Black, who procured it from Jerula, Black Springs, Lithgow. Unfortunately, or perhaps fortunately as results proved, it had been cut in halves. After keeping it in the herbarium for a week without moisture, the exposed septa of one half began to throw out innumerable hyphæ which eventually covered the whole surface, those of the other half remaining quiescent during this period.

At the end of seven days portion of the hyphæ appeared to gravitate towards one end of the edge and to accumulate into a mass which assumed a puff-ball shape, and four days later developed a pileus, the upper surface of which was at first of an orange-brown colour in the centre with a mauve band of four lines broad slightly removed from the edge, the under surface showing the pores of a *Polyporus*. It gradually grew till it attained a diameter of 3 inches, when it began to harden and eventually lost its colour. As the process of induration proceeded, the edges gradually recurved, and eventually in its final stage the whole much resembled *P. ovinus*, Schæff. The pores were characteristic of the genus, but unfortunately no spores were detected.

The second half was then taken in hand and placed on soil and kept moist. The hyphæ soon became active, and at the end of a week the whole surface of the gelatinous cells exposed in the section was covered with a perfectly white mass of mycelium. The convex side was then buried in soil, except a small part of one end which showed signs of fructification, and well watered. From the exposed end protuberances began to form, and eventually three developed, the largest being a fine specimen measuring over 4 inches in diameter and with exactly the same markings and colour as the first obtained and described above, and like it resembling a poached egg in colour and form when viewed from above. The stipes was, however, more fan-shaped than in the previous specimen. The hyphæ next developed into a thick, porous, foamy mass covering almost the whole surface and eventually spreading over and into the adjacent soil opposite to the exposed end. Two small, cup-shaped specimens were the

last to appear on the cut surface of this half of the "bread." At the end of a month it formed a very interesting specimen. Attempts to detect spores were again fruitless, the spore-bearing stage appearing not to be reached, probably owing to the artificial method of propagation.

**POLYSTICTUS TRIZONATUS*, *Cooke*.—Snowy River (W. Bäuerlen).

**HEXAGONIA DECIPIENS*, *Berk.*—Snowy River (W. Bäuerlen).

**HYMENOCHÆTA MOUGEOTII*, *Fries.*—Tantawanglo Mt.

†*PATELLARIA (PATINELLA) FILICICOLA*.—Cambewarra (W. Bäuerlen).

LICHENES.

**PARMELIA LIMBATA*, *Laurer*.—Bangley Creek (Shoalhaven); (W. Bäuerlen).

**PARMELIA PERFORATA*, *Achorius*.—Cambewarra (W. Bäuerlen).

**SPHÆROPHORON TENERUM*, *Laurer*.—Sugar Loaf Mt. (W. Bäuerlen).

MUSCI.

**BRENTELINA BAEUERLENI*, *Cke. & Mass.*—The Clyde (W. Bäuerlen).

EXPLANATION OF PLATES XXII.-XXIII.

Polyporus mylittæ, *Cke. & Mass.*

Plate xxii.

Exposed end of one section showing fructification-stage developing from the outer coating of the sclerotium.

Plate xxiii.

Half of the sclerotium with the fructification developing from the cut surface.

* New for New South Wales.

† Not previously recorded for Australia.



Baker, Richard T. 1903. "Contributions to a knowledge of the flora of Australia. Part IV." *Proceedings of the Linnean Society of New South Wales* 27, 536–544.

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