

## NOTES FROM THE BOTANIC GARDENS, SYDNEY.

No. 7.

BY J. H. MAIDEN AND E. BETCHE.

## MALVACEÆ.

*PLAGIANTHUS PULCHELLUS*, A. Gray, var. *TOMENTOSUS*, Hook.

Queanbeyan (W. Farrer, October, 1897); Jenolan Caves (W. F. Blakely, October, 1899); Tumberumba (W. Forsyth, November, 1900).

The tomentose variety of *Plagianthus pulchellus* is common in Tasmania and Victoria, but has not been previously recorded from New South Wales.

## TILIACEÆ.

*ELÆOCARPUS GRANDIS*, F.v.M.

Way Way Creek, Nambucca River (G. R. Brown, December, 1900). The most southern locality recorded.

## RUTACEÆ.

*ZIERIA SMITHII*, Andr., var. *FRASERI*, F.v.M. (unpublished).

Wallangarra (E. Betcher, December, 1891); Mograni Mountain, near Gloucester (J. H. Maiden, September, 1897).

A shrub several feet high, with tomentose young branches. Leaflets lanceolate, with recurved margins, about  $\frac{3}{4}$  inch long, glabrous above, white-tomentose underneath. A very distinct variety, apparently connecting *Z. Smithii* with *Z. cytisoides*, Sm.



Named by Mueller in the Melbourne Herbarium from specimens from "New England" without date and collector's name.

*ZIERIA LÆVIGATA*, Sm., var. *LAXIFLORA*, Benth.

Byron Bay (W. Forsyth, September, 1900). New for New South Wales.

The Byron Bay specimens agree completely with Queensland specimens from Stradbroke Island, one of the original habitats of this variety.

*ZIERIA GRANULATA*, C. Moore, var. *ADENODONTA*, F.v.M. (unpublished).

"Highest mountain on the Tweed River" (Carron, no date, about 1865); Mount Warning (W. Forsyth, September, 1900).

Leaflets lanceolate, about  $\frac{3}{4}$  inch long, apparently somewhat dentate by the large glandular tubercules on the margins. The white underside of the leaflets, which is almost concealed in the southern species, is very conspicuous in this variety. Named by Mueller in the Melbourne Herbarium from Carron's specimens.

*ASTEROLASIA CORREIFOLIA*, Benth., var. *MUELLERI*, F.v.M.  
(*A. Muelleri*, Benth.).

Lobb's Hole (W. Forsyth, November, 1900).

Distinguished from the common New South Wales form by the sulphur-yellow flowers and the stellate-hairy upperside of the leaves. It is the common form in Victoria, but has not been previously recorded from New South Wales.

*GEIJERA SALICIFOLIA*, Schott, var. *ANGUSTIFOLIA*, var. nov.

Tia Falls, New England (W. Forsyth, October, 1900).

Leaves not above 7 to 8 lines broad with a length of  $2\frac{1}{2}$  to nearly 3 inches. Bentham says, in a footnote in the *Flora Australiensis*, "Schott's figure (Schott, *Fragm. Rut.* t. 4) represents a remarkably narrow-leaved form, which I have only seen in Brown's specimens, and in those from Warwick and from Rockhampton"



(Queensland localities). Our *Tia* specimens agree exactly with the narrow-leaved Warwick specimens in the Melbourne Herbarium.

#### RHAMNACEÆ.

##### POMADERRIS PHYLICIFOLIA, Lodd.

Warrumbungle Range (W. Forsyth, October, 1899). Most northerly locality recorded.

#### SAPINDACEÆ.

##### NEPHELIUM FORSYTHII, sp.nov.

A tree attaining 25 feet in height, with a stem 14 inches in diameter, but generally shrubby and 10 to about 15 feet high; glabrous except the young shoots. Leaves abruptly pinnate; leaflets shortly pedicellate, 2 rarely 4, opposite, usually oval-oblong and obtuse,  $2\frac{1}{2}$  to  $3\frac{1}{2}$  inches long, quite entire, coriaceous, reticulate on both sides, rather pale green but shining above, paler and opaque underneath. Flowers in axillary or lateral sometimes apparently terminal panicles, little branched, not (or scarcely) exceeding the leaves when in flower, the single flowers on short pedicels, often in clusters of 2 or 3. Calyx 5-toothed. Petals absent. Stamens 7 or 6, inserted round the ovary within the disk; anthers oblong, glabrous, as long or longer than the short filament. Ovarium sessile, 2- or rarely 3-celled, 2- or rarely 3-edged, slightly hairy; style very short or the stigmatic lobes almost sessile. The calyx, stamens, pedicels, and more or less the rachis of the panicle are of a dark violet colour, giving the whole inflorescence a blackish appearance in the dried specimens; the thick annular disk is yellow. Carpels usually 2 (apparently only exceptionally 3), flattened, quite connate, horizontally spreading, the whole fruit flat-topped, with a short central stigmatic cone, often rather above  $\frac{3}{4}$  of an inch broad, about 4 lines high and 1 to 2 lines thick, very shortly or scarcely stipitate and apparently quite indehiscent, glabrous inside. Seeds flattened, partially enclosed in the arillus; embryo curved.



Tia Cañon (J. H. Maiden, November, 1897, and J. Kretschmann, December, 1898); Tia and Apsley Cañon (W. Forsyth, October, 1900).

Allied to *N. subdentatum*, F.v.M., from which it is chiefly distinguished by the entire leaflets, inflorescence and the shape of the fruit. It seems to be confined to the deep cañons of the Walcha district in the New England tableland, where it forms a scrub extending from nearly the top to the bottom on many parts of the steep sides of the Tia Cañon.

#### LEGUMINOSÆ.

OXYLOBIUM TRILOBATUM, Benth., var. ILICIFOLIUM, var. nov.

Mount Warning (Tweed River) at a height of 3,200 feet (W. Forsyth, September, 1900).

Leaves ovate, with rather numerous pungent teeth.

This form is included in the description of *O. trilobatum* in the *Flora Australiensis*, but the holly-like leaves give it such a different appearance from the typical form with trilobate leaves, that we propose to separate it as a variety. There certainly appear to be forms connecting this handsome variety with the typical species.

PULTENÆA MUCRONATA, F.v.M.

Blackheath, Blue Mountains (A. A. Hamilton, October, 1900). The most northern locality recorded.

PULTENÆA PLUMOSA, Sieb.

Apsley Falls, New England (W. Forsyth, October, 1900).

The most northern locality recorded. Previously only known from Port Jackson and the Blue Mountains, extending as far west as Wallerawang.

#### MYRTACEÆ.

THRYPTOMENE (MICROMYRTUS) HEXAMERA, sp. nov.

Road from Bourke to Ford's Bridge, Warrego River (E. Betcher, September, 1885); road from Bourke to Barrington (W. S. Camp-



bell, September, 1893); road from Bourke to Goombalie, Warrego River (E. Betché, September, 1900).

An erect heath-like shrub, attaining about 10 feet in height, with slender branches. Leaves obovate, under 1 line long, thick, slightly concave and somewhat keeled, with few large dark oil dots, decussate on the ultimate branchlets, and almost concealing the white bark of the young twigs. Flowers solitary, pedicellate in the axils of the upper leaves, the pedicels about as long as the leaves. Bracteoles scarious, of the size and shape of the leaves, but very deciduous, and seen only on a few young buds. Calyx-tube turbinate, scarcely 1 line long, irregularly 10-ribbed, the ribs proceeding from the centre of the sepals and petals, but often coalescing. Sepals small, semi-orbicular, scarious. Petals nearly orbicular, white, above twice as large as the sepals, both with somewhat jagged edges, and almost constantly 6 in number in all flowers examined. Stamens twice as many as the petals, inserted on the margin of the prominent disk, half of them opposite the petals, all on short, rather thick filaments incurved towards the small style. Anthers with almost globular cells opening in parallel slits, the connective tipped with a globular gland. Ovules 8 to 10, attached near the summit of a filiform placenta extending from the base of the ovary to the summit. Ripe seeds not seen.

*Thryptomene hexamera* belongs to Bentham's genus *Micromyrtus*, united by Mueller with *Thryptomene*. The two genera are so closely allied, and so much alike in habit and general appearance, that we propose to follow Mueller in reducing *Micromyrtus* to a section of *Thryptomene*, in spite of the difference in the placentation, on which Bentham chiefly bases his genus. It is more nearly allied to the West Australian species of *Micromyrtus* than to the two New South Wales species, *M. microphylla* and *M. minutiflora*, and differs from all in the numerous ovules, in the abnormal number of petals, which we found almost constant in the specimens from all the localities, and in many other respects. Its range seems to be north and north-west of Bourke, between the Darling and Warrego Rivers, from whence it may extend into Queensland. Its western limit is also still unknown



to us; we can only say we have not seen it west of the Warrego River, in spite of an extended journey in the Paroo River district last year.

For excellent sections of fruit and flower we are indebted to Miss S. Hynes, B.A.

#### UMBELLIFERÆ.

##### ACTINOTUS HELIANTHI, Labill.

Portion 15, Parish of Pringle, County Inglis, 40 miles from Walcha (J. F. Campbell, 1901); sandstone hills, near Wallangarra (E. Betcher, December, 1891)—two isolated New England localities for the common Flannel-flower.

#### RUBIACEÆ.

##### KNOXIA CORYMBOSA, Willd.

Mullumbimby (W. Bäuerlen, January, 1897). New for New South Wales.

Previously recorded from Queensland, extending to tropical Asia. The flowers are considerably smaller than in an Asiatic specimen figured in Wight's *Illustr. of Indian Botany*, t. 128.

Specimens kindly supplied by Mr. R. T. Baker.

#### COMPOSITÆ.

##### CALOTIS INERMIS, sp. nov.

A low herb, apparently annual, branching from the base with ascending striate stems, hispid all over with white somewhat scaly hairs. Leaves cuneate, with a long narrow base, sessile, half stem-clasping and sometimes with a slightly dilated base, usually  $\frac{1}{2}$  to 1 inch long and 3 to 5 lines broad at the top, 5- to 10-toothed towards the top, the uppermost leaves more linear-cuneate and with fewer teeth. Flower-heads large, on long slender petioles. Involucral bracts lanceolate, very acute or acuminate, ciliate with long white hairs, green and herbaceous, except the



brown, somewhat scarious, acute point. Ray-florets purple, the rays spreading in the largest head to fully 1 inch in diameter; disc-florets yellow. Achenes of the ray-florets obovate, short, flat, striate, hirsute with short hairs. Pappus consisting of about 18 to 20 long soft setæ, in the dried specimens often nearly as long as the crumpled rays, plumose from top to base with horizontally spreading hairs. Achenes of the disc-florets abortive, with a pappus like that of the ray-flowers, but shorter; ripe achenes not seen.

Urisino, 20 miles west of Wanaaring on the Paroo River (E. Betché, September, 1900).

This very handsome new species is, from the point of view of the wool-grower, favourably distinguished by its innoxious fruiting-heads from all the other burr-plants composing the genus *Calotis*. The long soft setæ of the pappus are quite unique in the genus, and may perhaps, by some, be regarded as sufficient reason to establish a new genus, but as its habit and all other characters agree well with *Calotis*, we prefer to consider it as an aberrant species of that genus. It cannot be placed in any of Bentham's four sections of *Calotis*, but forms a fifth section by itself.

#### GOODENIACEÆ.

##### VELLEIA SPATHULATA, R.Br.

National Park, near Sydney (A. A. Hamilton, March, 1900); Narrabeen Swamps (A. A. Hamilton, April, 1900).

Hitherto not recorded further south than Newcastle.

#### EPACRIDEÆ.

##### EPACRIS ROBUSTA, Benth.

Jenolan Caves (W. F. Blakely, September, 1900).

A rare plant, previously recorded only from the summit of White Peak Mountain, at the head of the Genoa River.

The size and colour of the flower seem to differ greatly in this species. The flowers of the Genoa River specimens are described



as "white, with a slight yellowish tinge," and the corolla-tube does not exceed the calyx; while the Jenolan Caves specimens are pinkish, the pink colour extending down to the bracts and sepals, and the corolla-tube is rather above 3 lines long, considerably exceeding the calyx. It is chiefly distinguished from *E. crassifolia*, R.Br., in habit; *E. crassifolia* is a small trailing shrub, growing in crevices of moist rocks, while *E. robusta* is an erect, robust shrub of 3 to 4 feet, growing on dry rocky summits. *E. crassifolia* varies also much in the length of the corolla-tube, and some of the forms collected in drier localities show a tendency to upright growth, and seem to merge into *E. robusta*.

EPACRIS CALVERTIANA, F.v.M., var. VERSICOLOR, var.nov.

Belmore Falls, near Moss Vale (W. Forsyth, September 30, 1900).

A very handsome variety, with flowers resembling those of *E. longiflora*, Cav., in colour and approaching them in size. Corolla rather above  $\frac{3}{4}$  inch long, with a red tube and white lobes. Upper leaves distinctly ciliate.

EPACRIS PURPURASCENS, R.Br., var. ONOSMÆFLORA, var.nov.

Kanangara Walls, near Jenolan Caves (W. F. Blakely, October, 1899, and September, 1900); between Mt. Victoria and Mt. York (H. Hammond Maiden, November, 1899); Blackheath (A. A. Hamilton, October, 1900).

Chiefly differing from the common forms of *E. purpurascens* in the inflorescence being confined to the upper part of the branches, never extending in our specimens as far down the branches as in the purpurascens form, in the flowers being white and with a longer corolla-tube, and in the hypogynous glands, which are more or less united in a complete undulate ring. The leaves vary from rather narrow to broad ovate-lanceolate. The broad-leaved specimens have entirely the habit of the common *E. purpurascens*, with the same spreading, upwards recurved, pungent-pointed leaves, embracing the stem in the lower part and



almost concealing it, while the more narrow-leaved specimens leave the stem exposed. The corolla-tube is about 3 lines long and rather longer in proportion to the corolla-lobes and to the calyx than usual in *E. purpuascens*, but the exserted glabrous style and the half-exserted stamens are entirely as in this species. We refer this plant with some doubt to *E. purpurascens*, but though it differs considerably from this species, and the difference seems to be constant, at least in the flowers, the points seem to be scarcely enough to justify its establishment as a new species. We do not doubt that it is the *E. onosmaeflora*, A. Cunn., in Field's *New South Wales*, p. 340, figured in *Bot. Mag.* t. 3, 168. "Discovered by Allan Cunningham in October, 1822, in peaty bogs at Blackheath, on the Blue Mountains of New Holland," so that Mr. Hamilton's specimens are from the original locality.

#### SAPOTACEÆ.

NIEMEYERA (CHRYSOPHYLLUM) PRUNIFERA, F.v.M.

Warrall Creek, Hastings River district (G. R. Brown, August, 1900).

The most southern locality recorded.

#### EBENACEÆ.

DIOSPYROS MABACEA, F.v.M. (*Cargillia mabacea*, F.v.M.).

Murwillumbah (R. A. Campbell, March, 1901).

The fruits have not been previously described.

Fruit a scarlet globular berry about  $1\frac{1}{4}$  inches in diameter in the largest specimens seen, 4-celled, with 2 seeds in each cell, but generally only one perfect. Seeds more or less triangular, with flat sides, the testa brown, shining, neatly sculptured.

#### AMARANTACEÆ.

PTILOTUS LEUCOCOMA, F.v.M. (*Trichinium leucocoma*, Moq.)

Red clay country, west of the Darling River (D. W. F. Hatton, May, 1900); Urisino, Paroo River District (E. Betcher, September,



1900). New for New South Wales. Previously only recorded from the Eremian region of South Australia. The Inspector of Stock in Bourke, Mr. Hatton, who seems to be a reliable observer, informs us that he has met with the plant in the south within 100 miles of Bourke, while in the north the Culgoa River seems to be its eastern limit.

The New South Wales specimens form dense patches exceeding two feet in diameter in old plants, and are, according to Mr. Hatton, by no means uncommon in the sterile red clay country of the far north-west. They differ from the description in Benthams's *Flora Australiensis* and from the fragmentary South Australian specimen we have seen, in the size of the spike, which is quite cylindrical and above 1 inch long, and in the pinkish colour of the sepals.

#### PROTEACEÆ.

##### HAKEA FRASERI, R.Br.

Tia Falls, New England (W. Forsyth, October, 1900).

A shrub about 10 feet high. Fruit nearly straight, smooth, about  $1\frac{1}{4}$  inches long and about 5 lines broad.

As the fruit of this apparently very local handsome shrub has not been hitherto known, we have given the above description from a few old capsules (without seeds) collected by Mr. Forsyth.

#### JUNCACEÆ.

##### JUNCUS CÆSPITITIUS, E. Mey.

Centennial Park, Sydney (E. Cheel, December, 1900).

New for the Port Jackson district. Previously only recorded in this colony from the southern districts.

#### CYPERACEÆ.

##### ELYNANTHUS CAPILLACEUS, Benth.

National Park, near Sydney (J. L. Boorman, December, 1900).

Most northern locality recorded. First recorded as a New South Wales plant from Twofold Bay in *Proc. R. Soc. N.S. Wales*. Vol. xxvii. p. 84, 1893.



## GRAMINEÆ.

## PANICUM GILESII, Benth.

Olive Downs, Tibooburra (J. W. Johnson, May, 1900). New for New South Wales.

A Central Australian species previously recorded from S. Australia, Queensland, and W. Australia.

## CHLORIS BARBATA, Sw., var. DECORA, Benth.

Olive Downs, Tibooburra (J. W. Johnson, May, 1900). New for New South Wales. Previously only recorded from the Eremian region of South Australia and Western Queensland, but now added to the flora of New South Wales.

## ERAGROSTIS NIGRA, Nees.

Hill Top (J. H. Maiden, January, 1896); Barber's Creek (J. H. Maiden, December, 1897, and January, 1898); Balmoral (Wm. Corner, May, 1900). (The three localities mentioned are stations on the Great Southern Railway).

The most southern localities. Previously only recorded in this colony from the New England Tableland.

## ERAGROSTIS LEPTOCARPA, Benth.

Olive Downs, Tibooburra (J. W. Johnson, May, 1900). New for New South Wales.

A Central Australian species previously recorded from S. Australia, Queensland and W. Australia.

The very narrow grain, to which the specific name alludes, is very characteristic of this species.

## FESTUCA DURIUSCULA, Linn.

Moona Plains, in the Walcha district (A. R. Crawford, July, 1900). The most northern locality recorded.

A tall form with large spikelets and rather long awns (approaching var. *aristata* from Victoria and S. Australia). The panicle is rather broad and often about 10 inches long.



## LYCOPODIACEÆ.

## LYCOPODIUM CERNUUM, Linn.

Mullumbimby (W. Bäuerlen, September, 1894); Tumbulgum (W. Bäuerlen, April, 1898); near Murwillumbah (W. Forsyth, September, 1900). New for New South Wales.

Apparently common in the brush-forests between the Brunswick and Tweed Rivers, but not previously recorded as a New South Wales plant. First received from the then Curator of the Technological Museum in 1895.





Maiden, J. H. and Betche, Ernst. 1901. "Notes from the Botanic Gardens, Sydney. No. 7." *Proceedings of the Linnean Society of New South Wales* 26, 79–90.

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