

BOTANICAL NOTES.

BY L. RODWAY.

(Read June 11th, 1894.)

In November, 1886, Mr. T. B. Moore drew our attention to what he considered a new Eucalypt that he had found growing on the sub-alpine range between New Norfolk and the Huon district. He described it, and named it after our greatly esteemed friend Baron Von Müeller.

The Baron had already had an opportunity of examining the plant, having found it some years previously towards the summit of Mount Field east. He did not consider it distinct, but thought it probably a lowland form of *E. vernicosa*, H.

The tree has probably a wide sub-alpine distribution in south-western Tasmania, as besides meeting with it in quantity in both localities named, I have found it extensively dispersed round the southern slope of Mount Wellington at about 2,000ft. elevation, where it can be seen in quantity in the region of the Springs Track to the Two Bridges and Forked Creek Rivulets, where it forms the principal timber.

I also have an undoubted specimen of this plant, but with rather different opercula, gathered by Mr. Wm. Fitzgerald on Mount Giekie.

The tree has probably been overlooked in many localities. It grows with and is very like *E. urnigera*, H., with which I have no doubt it has been confounded. The two trees can hardly be distinguished when seen together, and with *E. müelleri* the branches are very tough, so that it is most unusual to pick up broken limbs with inflorescence. With *E. urnigera* on the contrary the wood is brittle, so that at this time of the year the ground in such a forest would be comparatively strewn with its flowers. Another cause of the overlooking of *E. müelleri* by botanists is that its buds and fruit are practically exactly similar to those of *E. coceifera*, Hh., and till one was fortunate enough to secure flowers and detect the parallel anther-cells the distinctness would not suggest itself. Whatever the cause may be this tree, which is most distinct from any eucalypt but *E. vernicosa*, grows in quantity by the side of the track below the Springs, attains a height of 200ft., and yet has barely attained the dignity of a name.

It remains still a matter of opinion whether the tree should be considered specifically distinct from *E. vernicosa*, H. Its close relationship is undeniable, but the fact that this tree appears to die out at a sub-alpine altitude, and the dwarf

alpine *E. vernicosa* not appearing in localities where this is so common, would lend some weight in support of the trifling structural differences. Beyond the greater dimension of the tree the leaf is more oblique, longer proportionately, and the veins more regular and less oblique than in *E. vernicosa*, and the calyx and capsule are larger. But these differences are not more than could be reasonably expected from the greater vigour.

The wood is of a pale red colour, and rather heavy; of a close fibrous texture of great tenacity, and is commonly used for palings and shingles, but it makes excellent axe-handles, and would be very useful for all purposes where considerable strength and toughness were required.

Mr. Moore's description, though very lucid, does not include all one would wish, I therefore take this opportunity to describe it more fully:—

Eucalptus müelleri, T. B. Moore. A tree often attaining 200 feet. Bark scaly at the base, smooth above, glaucous, but becoming blotched with rufous green on prolonged exposure. Leaves alternate, petioled, slightly oblique, 3-5 in. long, ovate to narrow, lanceolate, acute, margin crenate, veins obscure, rather numerous and oblique. Peduncles axillary about $\frac{1}{2}$ in. long, angled. Flowers sessile, normally 3. Calyx in the mature bud obscurely angled, 4 lines long, operculum rather flat to sub-conical, verrucose and umbonate. Flowering calyx turbinate, 3 lines diameter. Stamens $2\frac{1}{2}$ to 3 lines long, anther-cells parallel. Fruit broadly turbinate, slightly angled, 4 lines diameter; capsules deeply sunk, the valves just reaching the top of the rim.

Mount Wellington, Mount Field East, Mount Geikie, about 1,500 to 3,000 feet elevation. Flowering in May and June.

In a paper I had the honour of reading before the Royal Society last year, in alluding to the varied forms assumed by *Actinotus bellidioides*, B., I referred to a form in my possession with divided leaves. Since that time my indefatigable young friend, Wm. Fitzgerald, has found this form in different places, and in all stages of development. Its distinct spreading habit, alternate and divided leaves and peculiarities of inflorescence maintain themselves even when growing with *A. bellidioides*, but it was only after mature consideration that Baron von Müller, to whom it was submitted, consented to name it, which he did by giving it the name of its discoverer, T. B. Moore. The description has been left in my hands.

Actinotus moorei, F.V.M., a small tufted and creeping perennial, usually with procumbent leafless branches extending 1 to 3 or more inches, the leafy ends ascending. Leaves alternate 3-segmented, but the lateral segments usually more

or less deeply cleft, each segment 2 to 3 lines long, lanceolate, acute; petiole slender, about 4 lines long, with a short broad sheathing base, clothed with white silky hairs. Peduncle terminal, from very short to $1\frac{1}{2}$ in. long, slender, hairy. Umbel about 2 lines diameter; bracts about 6, very shortly united. Flowers about 5, calyx-limb apparently always 4-lobed and shortly tubular above the ovary. Petals none. Stamens apparently always 2.

Mount Hamilton, Mount Reid, Mount Tyndall, Hartz Mt.

Haloragis heterophylla, Brogn. This plant appears to have escaped addition to our census, not so much from its rarity than from its likeness to its relatives. Its divided leaves has often placed it with *H. ceratophylla*, Endl. It differs in the leaf, however, from that species in these organs being opposite, and in the flower and fruit it is closely allied to *H. tetragyna*, R. Br.

I have specimens gathered near Evandale some years ago by Aug. Simson, and about two years ago by Wm. Fitzgerald near Campbell Town. It is also very common on the flats and banks of the Jordan above Bridgewater.

The genus *Vallisneria* is one that has always found great favour in the eyes of botanical students from the peculiarity of its flowers. The pistillate flower is solitary, and is developed on a long peduncle that is spirally coiled when young, but at maturity uncoils to allow the stigmatic lobes to be exposed at the surface of the water. The male flowers are extremely minute and numerous, and are formed on a rhachis within a spathe in the leaf-axils. When the buds are about ripe they escape from the spathe, rise to the surface of the water and there open. They float down the stream in great numbers, and generally some of them have the good fortune to meet the object of their being, the pistillate flowers. *Vallisneria* is distributed throughout the tropical and warm temperate portions of both hemispheres, and is generally considered to contain but one species, though an effort has occasionally been made to separate the Australian form as a distinct species. It would appear as though our Tasmanian plant at least had never received the fair treatment of being examined in the living condition, for the only descriptions I am aware of that passes to represent it does not accord with it. I am not disposed to take the responsibility of giving our plant a separate name, but for the sake of convenience and to mark its distinctness I will in describing it mark it as a variety.

Vallisneria spiralis, var. *procera*. Plant submerged, stoloniferous. Leaves 1 to 3 feet long, lin. wide, the margin thick obtuse, and often serrulate towards the apex. Male

inflorescence on a very short peduncle in the leaf axils; spathe about $\frac{3}{4}$ in. long, rather narrow, bursting into two valves or irregularly soon disintegrating. Flowers minute, very numerous on a slender rhachis nearly as long as the spathe, each flower on a slender deciduous pedicel, parting from the rhachis when mature, rising to the surface of the water and there opening. Perianth 3 lobed about $\frac{1}{8}$ to $\frac{1}{6}$ line diameter, the lobe not opposite a stamen narrower than the other two. Stamens 2, filaments combined in a very short column surrounded at the base by a ring of hairs, and bearing at the base two rudimentary staminodes. Anthers bilocular, but the walls destroyed upon dehiscence.

Female spathe about lin. long, narrow, bursting as in the male, but rather more persistent, on a long peduncle that is usually but not always coiled when young. Ovary about lin. long. Perianth lobes 3, broad, obtuse $1\frac{1}{2}$ to 2 lines long, stigmas 3 broad, opposite the perianth lobes, each divided to the base. Staminodia none. Capsule much enlarged, its peduncle not recoiling after fecundation in the very numerous plants examined.

Jordan River above Bridgewater. Flowering in February.

Stipa pubescens, R. Br., is one of our widest spread native grasses, and its variability is about as wide as its distribution. Its type and the forms running absolutely into *S. semibarbata*, R. Br., are well known, but we have a form common in dry, stony, hilly country that departs considerably in habit from any form I have seen described. The stems arise from a persistent hard slowly spreading base as we usually find in the type, but they are nearly glabrous, and develop no leaves beyond the sheaths, and the sheaths and their insignificant laminæ turn dry and pale as soon as elongated, giving the plant a very distinct appearance. The details of the plant otherwise do not differ from accepted forms of *S. pubescens*, but its habit makes it sufficiently marked to warrant its being treated as a variety as *Stipa pubescens*, var. *aphylla*.

Page 51, line 30.—For *coceifera*, read *coccifera*.

" 54 " 34 and 36.—For *pubeseous*, read *pubescens*.