

CONTRIBUTIONS TO THE PHYTOGRAPHY OF TASMANIA.

[By FRED. MUELLER, M.D., F.R.S.]

THIS brief allusion to some plants, either unrecorded from Tasmania or rare in its territory, refers to contributions gained from various sources. Robert Brown's great treasures furnished some of the data, as will be evident on reference to the universal work on Australian Vegetation, issued by the President of the Linnean Society. Others of the plants were kindly transmitted by Mr. J. Bennett from the British Museum, and gathered by Dr. Jos. Milligan. Some were detected by Mr. Aug. Oldfield, and remained unnoticed in the supplemental contribution, which it fell to my share to furnish for the "*Flora Tasmaniae*." A few again were added by Mr. Walt. Bissell, in a recent voyage to the North-east Coast; while I was agreeably surprised to receive from the venerable Dr. G. Story an extensive set of Museum-plants, secured in the Oyster Bay district. From a letter of this gentleman I submit introductorily the following physiographic remarks, which claim in many respects originality:—

This district is a tract of waste, extending from Cape Bernier on the south to Doctor's Creek, or Seymour Coal Mines, on the north; it was formerly known as the District of Oyster Bay, as that bay occupies a considerable portion of the coast-line. At present the south part is in the County of Pembroke, and the other part forms the County of Glamorgan, forming together a coast-line of 80 miles. A strip of land for cultivation extends along the coast, and is backed by tiers of hills that extend westward to the midland districts of the island. The tiers are formed chiefly of basalt (greenstone), in some cases sand stone and the coal formation appears, but the latter is only met with on the coast-line. The Schouten Island and Freycinet's Peninsula have a strip of porphyritic granite on the eastern side, which granite extends to Bicheno. Sandy swamps, replete with plants, occur at intervals along the coast-line, and sandy swamps occur also in the granite formation, but with a different Flora.

Oyster Bay is from 20 to 30 miles in length, and about 15 miles broad. Maria Island lies at its mouth; the Schouten Island and Freycinet's Peninsula form the eastern side; Swansea is at the head of the western side of the bay and Kelvedon (where Ireside) is six miles south of Swansea. The rivers beginning generally south are Sandspit, Prosser's, Little Swanport (which forms a large pond or lagoon previous

to entering the sea). Then several creeks, viz., Buxton's, Meredith, Cygnet, and Wye. Then comes the Great Swan River, and over a tier of hills the Apsley. These two form an extensive port 12 miles in length and four or five miles in breadth, and enter the head of Oyster Bay by a common mouth close to Freycinet's Peninsula; the only other river is the Douglas, near the coal mines. I have never collected plants to the north of Douglas River; it is, I suppose, 100 miles from thence to the north-east corner of the island, and the granite formation will be found in some places no doubt, where it is likely the plants allied to those of Gipps Land exist. Our climate is dry and mild, it is reckoned the most salubrious of any district in the island. The rain in 1864 was 31.16in.; 1865, 19.66in.; 1866, 24.99in.; average for the three years, 25.27in.

Like all other parts of Australia, droughts are long and often occur; thus the rivers are swollen torrents in heavy rain and dry beds in summer; their beds are often densely filled with shrubs.

The united collections offered not merely material for extending our knowledge of the range of the species, but they comprised even a number of plants (indicated in the subjoined enumeration by asterisks) not recorded in Dr. Hooker's great work as existing within Tasmanian territory, adding also the genera *Euphorbia*, *Donatia*, and *Ixiolaena* to the described Tasmanian vegetation.

Reserving for the supplemental volume of the Australian Flora more extended notes on these interesting plants, I beg meanwhile to place a succinct record thereon before the Royal Society of Tasmania, in order that residents there, who cherish a desire for promoting scientific objects, may be encouraged to reveal to us still further the rich vegetation which surrounds them. For researches in this direction Tasmania possesses rare advantages, because few spots in the world can boast of possessing so extensive a work on its vegetation as that which ever will remain a monument of Dr. Hooker's genius and of the sedulous zeal of Mr. Ron. Gunn, Dr. Milligan, and Mr. W. Archer.

The advancement of Phytographic labors should be an aim of each country. Without accurate definition of its plants we cannot reduce any observations on their industrial, therapeutic, or economical value to any solid basis, not to speak of the information thus arising as a never-ceasing source of delight, as an ever-elevating inspiration for religious reflection.

**Comesperma defoliatum*.—F. Muell. Plants of Vict. I., 189. Southport, C. St. In external appearance similar to *C. caly-megum*; in internal structure very distinct.

**Gypsophila tubulosa*.—Bois's diagn. plant. Orient. I., 4. Locality as yet uncertain.

**Polycarpon tetraphyllum*.—L. fil. Suppl. 116. Swanport, G. Story. This and the preceding plant may not be originally indigenous. In many instances it is now beyond possibility to ascertain which plants are immigrated. Under any circumstances they cannot be excluded from phytographic lists.

**Eriostemon Oldfieldii*.—F. Muell. fragm. phyt. Austr. I., 3. Mount Laperouse, Oldfield. Belongs to the section Phebalium.

Eriostemon Hillebrandii.—F. Muell. in transact. phil. Soc. Vict. I. 10. On granite at Apsley River. G. Story.

Eriostemon virgatus.—A. Cunn. in Hook. Journ. of Bot., II., 417. Swanport, G. Story. The ripe fruit unknown. The plant forms a transit to Boronia.

**Zieria cytieoidis*.—Smith in Rees's Cycloped. 4. On granite rocks at Bichenor. G. Story.

Lasiopetalum micranthum.—J. Hook. fl. Tasm. I., 51. Swanport, G. Story.

Lasiopetalum dasyphyllum.—Sieb. in Hook. Journ. II., 404. Flinder's Island and Cape Barren Island, J. Milligan.

Viminaria denudata.—Sin. Exot. Bot. 51 t. 27. This plant is here doubtfully inserted. It was received from Mr. Eng. Fitzalan along with other Tasmanian plants, without note of locality. It is extremely frequent in the coast straits of Victoria.

Desmodium varians.—Endl. Annal. des. Wien. Mus. I. 185. Cape Grim, J. Milligan.

**Acacia penninervis*.—Sieb. in Cand. pr. II., 453. Mount Wellington, Oldfield. This tree is not unfrequent in the subalpine regions of Victoria, and occurs very likely in several other parts of Tasmania.

**Acacia Oxycedrus*.—Sieb. in Cand. pr. II., 453. Sent by Mr. Fitzalan along with other Tasmanian plants. One of the most frequent species on the moor-heaths of Victoria.

Acacia juniperina.—Willd. Oper. Pl. IV., 1049. Swanport, G. Story.

Acacia romeriformis.—A. Cunn. in Hook. Lond. Journ. I., 332. Swanport, G. Story. Snug and Oyster Cove, Milligan.

Geum renifolium.—F. Muell. in Transact. Phil. Vict. Inst. II., 66. Alpine heights in the rear of Macquarie Harbour, Milligan.

Spyridium Lawrencii.—Benth. Flor. Austral. I., 430. Swanport, G. Story.

Spyridium leucophractum.—F. Muell. Fragm. Phyt. Austr., III., 77. Swanport, G. Story.

Spyridium obovatum.—Benth. Flor. Austr. I., 429. Swanport, G. Story.

Cryptandra amara.—Sm. in Transact. Linn. Soc. X., 295, t. 18. Swanport, G. Story.

Kunzea corifolia.—Reichenb. Consp. Regn. Veg. 175. Bicheno, G. Story.

Phryptomene micrantha.—J. Hook, in Kew Miscell., 1853, 290 t. VIII. Sandy granite land at Bicheno, G. Story. Macquarie Harbour, Milligan.

Eucalyptus Globulus.—Labill. Voy. I., 153, t. 13. Flinder's Island, Milligan.

**Euphorbia chamæsyce*.—Linné. Amœn. Acad. 115. Swanport, G. Story. This plant ranges from the Mediterranean countries through South Asia, and extends over nearly the whole of the Australian continent. It introduces now for the first time the great cosmopolitan genus *Euphorbia* into the Tasmanian vegetation.

Sicyos angulatus.—Linné Sp. Pl., 1438. Sisters' Island, Milligan.

**Donatia Novæ Zelandiæ*.—T. Hook. Fl. N. Zel. I., 81 t. 20. Mount Sorell, Milligan. Mount Laperouse, Oldfield. Probably overlooked elsewhere in the glacier regions.

**Panax sambucifolius*.—Sieb. in Cand. Prodr. IV., 255. Douglas River, Milligan. The Tasmanian plant is hitherto known only in leaves. It seems, however, not distinct from the S.E. Australian tree, which in foliage has proved singularly variable.

Aster ledifolius.—A. Cunn. in Cand. Pr. V., 269. Mount Sorell, Milligan.

**Cotula filifolia*.—Thumb. Fl. Cap. 696. Kent's Group, R. Brown.

**Ixiolæna supina*.—F. Muell. in Transact. Vict. Inst. I., 32. Kent's Group, R. Brown.

**Cassinia longifolia*.—R. Br. in Transact. Linn. Soc. XII., 127. Bay of Fires, W. Bissell. Not rare on the opposite Australian coast.

**Leptorrhynchus linearis*.—Les's Oyn., 273. Derwent, R. Brown.

**Calocephalus citreus*.—Les's Synops. 271. Derwent, R. Brown.

Helichrysum cinereum.—F. Muell. in Benth. Fl. Austr. III., 629. Flinder's Island, Milligan.

Helichrysum lycopodioides.—Benth. Fl. Austr. III., 634. Tops of tiers, where water stagnates, near Kelvedon, also on Prosser's River. The leaves attain a length of four lines, and are then oblong linear.

Helichrysum Backhousii.—F. Muell. in Benth. Fl. Austr. III., 633. Gravelly banks of the River Apsley. G. Story.

Helichrysum dealbatum.—Labill. Nov. Holl. Plant. Spec. II., 45 to 190. Flinder's Island, Milligan.

Dampiera stricta.—R. Br. pr. 589. Bay of Fires, W. Bissell. Kelvedon, G. Story.

Scævola Hookeri.—F. Muell. in T. Hook. Fl. Tasm. I., 231, tab. 77. Swanport, G. Story.

**Scævola cuneiformis*.—Labill. Nov. Holl. Pl. Specim., I., 56, tab. 80. Swanport, G. Story. If, as Dr. Hooker suggested, the plant of Labillardière should prove a distinct South-west Australian species, then the name *Scævola æmula* (Br. p. 584) should be adopted for this one from Tasmania. It is identical with Brown's plant, which is dispersed from Guichen Bay to Gipps Land.

**Scævola microcarpa*.—Cavan. Icon. VI., 6 to 509. Flinder's Island, Milligan.

**Goodenia amplexans*.—F. Muell. in Transact. Phil. Inst., Vict. II., 70. On the Nile, C. St. This plant is precisely the same as the original from St. Vincent's Gulf.

**Goodenia barbata*.—R. Br. pr. 576. Tasmania, R. Brown. The writer has not seen Tasmanian specimens of this *Goodenia*, but as it is copiously occurring in east Gipps Land, there can be no doubt that it was found by R. Brown in the northern part of Tasmania, or on some of the adjacent islands which he visited. It is purple-flowered, though placed by R. Brown among the yellow-flowered species.

Velleia montana.—J. Hook. in Lond. Journ. of Bot. VI., 265. Swanport, G. Story.

Epacris micranthera.—F. Muell. Fragm. Phyt. Austr. VI., 72. Mount Sorell, Milligan.

Styphelia adscendens.—R. Br. pr. 536. Swanport, G. Story.

Styphelia pinifolia.—R. Br. pr. 536. Swanport, G. Story.

Trochocarpa involucrata.—F. Muell. Fragm. Phyt. Austr. VI., 57. Schouten Island, G. Story.

Richea Dracophylla.—R. Br. pr. 555. Mount Sorell. Milligan.

Mitrasacme distylis.—F. Muell. in Transact. Phil. Soc. I., 20. Kelvedon, G. Story.

Westringia angustifolia.—R. Br. pr. 501. Between Oyster Cove and Huon River. Milligan.

Westringia brevifolia.—Benth. in Cand. pr. XII., 570. Strzelcecki's Peak, Flinder's Island, Milligan.

Trichinium spatulatum.—R. Br. pr. 415. Kelvedon, G. Story.

Cassytha melantha.—R. Br. pr. 404. Kelvedon, G. Story.

**Pimelea serpillifolia*.—R. Br. 360. Flinder's Island, Milligan. One of the most common of all plants along the whole shores from Spencer's Gulf to Gipps Land, likely to be found in some of the other literal tracts of Tasmania.

Pimelea sericea.—R. Br. pr. 361. Swanport, G. Story. There six feet high.

Pimelea ligustrina.—Labill, Nor. Holl. Pl. Sp. I., 9 to 3. Douglas River, G. Story.

**Hakea ulicina*.—R. Br. Suppl. 29. Flinder's Island, Milligan. Closely allied to *H. dartyloides*. Among the few Tasmanian Hakeæ remarkable for its leaves, always flat and three-nerved.

Lomatia tinctoria.—R. Br. pr. 389. Islands of Bass' Straits, Milligan. Not yet found on the mainland of Australia.

Dendrobium Milligani.—F. Muell. Fragm. Phyt. Austr., I., 88 to VI. Porphyritic rocks at Bicheno, G. Story. The most southern locality of any *Dendrobium*.

Sarcodulus Gunnii.—F. Muell. Fragm. Phyt. Austr., I., 90. Table Cape and Macquarie Harbour, Milligan. Sea Elephant's Bay, G. Story. Also in King's Island.

Lypiranthus Burnettii.—F. Muell. Fragm. Phyt. Austr. V., 96. Macquarie Harbour, Milligan.

Lypiranthus nigricans.—R. Br. pr., 325. Rocky Cape, Milligan. The color of the flowers is saturated pure red.

**Lypiranthus suaveolens*.—R. Br. pr. 325. D'Entrecasteaux Channel, Milligan.

Caleana major.—R. Br. pr. 329. North West Bay. Milligan.

Calochilus campestris.—R. Br. pr. 320. Oyster Cove, Milligan.

Cryptostylis longifolia.—R. Br. pr. 317. Oyster Cove, Milligan.

Acianthus caudatus.—R. Br. pr. 321. Oyster Cove and Flinder's Island, Milligan.

Chætospora lepidosperma.—C. tennissima, J. Hook. Fl. Tasm. II., 81 to CXL., non Stend. Glum. II., 162. Swanport, G. Story. In habit this plant approaches to other *Chætosporæ*, in its hypogynous scales rather to *Lepidosperma*.

**Potamogeton perfoliatus*.—Linné op. pl. 182. South Esk,

C. St. As yet neither flowers nor fruits are sent from Tasmania. The plant accords in foliage, however, with European specimens and with others from Gipps Land.

**Zostira uninervis*.—Forsk. Fl. Aeg. Arab. 157. At Southport, C. St. Much smaller than *Z. marina*, extending northward to middle Europe. The peduncles are very slender, and the fruit is very peculiar.

**Solanum vescum*.—F. Mueller in Transact. Phil. Inst. Vict., 1., 63. King's Island, Mount Goiran. The berries are edible.

**Veronica peregrina*.—Linné Spec. Plant, p. 20.

Polycarpon tetraphyllum.—Occurs among Dr. Milligan's plants from Flinder's Island.