

16), siliculæ apice basique emarginatæ lobis cum ala orbiculatis divaricatis.

Gathered by Captain R. Strachey at the glacier sources of the Pindor River, in Kumaon, and by Mr. Winterbottom on the Pargil Pass, upper glen of the Kishnagunga River, in Little Tibet, without however having been met with by Dr. Thomson or any other traveller in any intermediate locality. It very frequently happens that only one cell of the pod enlarges and ripens.

Megacarpæa bifida, Benth.; caule elato, foliis pinnatisectis, segmentis lanceolatis integerrimis, panicula inermi, sepalis petaloideis petala superantibus, staminibus submultiplicatis (7-11?), siliculæ profunde bifidæ lobis cum ala obovatis demum conniventibus.

Gathered by Mr. Winterbottom in the valley of Kishnagunga, at an elevation of about 7400 feet, considerably lower down than the *M. polyandra*, from which it differs in the leaves, whose lobes are (at least in the single specimen preserved) perfectly entire, in the much more slender pedicels, and especially in the form of the pod as above described. Each lobe, with its wing, is about fifteen lines long by nine or ten lines broad. The wing itself is from three to near four lines broad.

Plate IX. and X. *Megacarpæa polyandra*. Fig. 1. Flower. 2. The same with the sepals and petals removed, showing the stamens. 3. Stamen. 4. Ovary and receptacle: the scars and marks on the receptacle are however somewhat inaccurate. 5. Silicule. 6. Seed. 7. Embryo.

Botany of VICTORIA (Southern Australia). *Extracts of Letters from*
DR. FERDINAND MUELLER, Colonial Botanist, Victoria.

Avon River, Gipps' Land, Nov. 19, 1854.

The interest which you formerly so kindly bestowed on my communications induces me to despatch from this locality, at the commencement of a new botanical journey to the Australian Alps, a few lines to you, to lay before you some results of my first ascent of the mountains this year. I am just returned from Mount Wellington (Gipps' Land); and although at so early a season for the snowy regions I had not an opportunity of collecting several apparently new and interesting plants even in the beginning of flower-development, yet I have seen, in addi-

tion to several new plants and several not yet found previously beyond Tasmania, others in a better state of development than before, so that I hope to be justified in addressing this letter to you.

Mount Wellington is rather more than 5000 feet high; and although *Podocarpus alpina* and some other truly alpine plants are found there, I think it may be safely considered more than subalpine, on account of its far southern situation. A heavy snow-storm at the middle of this month (equal to your May), which unfortunately shortened my explorations, called to my mind how far I was above the hot plains of Gipps' Land. But I will not trouble you with the detail of incidents of such journeys; I will merely enumerate a few of the most interesting plants which I met with on this mountain. The long-looked-for *Astelia alpina* I at length succeeded in finding, accompanied by *Veronica nivea* (out of flower), by a species of *Haplopappus* (perhaps identical with a Van Diemen's Land species), by a *Decaspora* with the habit of an *Acrotriche*, and distinct from Robert Brown's two kinds, and having a 5-10-seeded berry, so that it comes near *Pentachondra*. I noticed besides the beautiful little *Pimelea alpina* for the first time in flower, and seeing this plant exposed to snow at such a season, I could not help thinking what an acquisition it would be to the garden flora of England, reared without protection; and I will, of this as well as of the other alpine plants, collect at the proper season all the seeds I possibly can. The species appears to me very distinct from *P. humilis* in its smooth floral leaves, smallness of flowers, which are in various tints of red outside, with a white limb. But the gem of my new collection consists of an undescribed white-flowered *Ranunculus*, which, when shown to a botanist at home, would be rather considered as a plant from the Alps than from Australia, and it deserves for its typical similarity to the general feature of alpine plants (so rarely to be met with amongst those of Australia) so much attention, that I at once transmit to you specimens, with a brief diagnosis.

Ranunculus Millani; acaulis; folia glabra, pinnatisecta; segmenta linearia, obtusiuscula, indivisa vel dissecta; scapus solitarius, uniflorus, parce pilosus, petiolis glabrescentibus brevior; sepala appressa, glabra, margine membranacea; petala alba, 5-10, obovato-cuneata, calyce fere duplo longiora; styli subuncinati; carpidia . . .

On places denuded of grass on the summit of Mount Wellington, in Gipps' Land, at an elevation of about 5000 feet, where snow lies

during the greater part of the year. Flowers in November and December.

The root produces a fascicle of fibres. The leaves are expanded over the moist black soil, and are, with the petiole, from one to two inches long. The peduncle seldom rises to the height of one inch, and bears an elegant, tender white flower, rarely slightly yellow-tinged, which colour it however assumes in drying. Each petal is only provided with a solitary nectar-gland, and this character alone would separate my plant widely from *R. Gunnianus*, which grows in moist grassy places at the same locality. I have named this neat *Ranunculus*, the first new one which I observed in Australia, in honour of Angus M'Millan, Esq., who not only deserves this slight scientific tribute for the discovery of Mount Wellington, and of many other mountains which he named and first ascended, and which border one of the finest and most delightful districts of Australia, Gipps' Land, of which Mr. M'Millan, under extraordinary difficulties and dangers, was the first explorer, but also as I wished to acknowledge thus permanently my gratitude for much assistance which I received from him in my botanical journeys through this district.

Other plants new to me are, a very curious one, perhaps a *Kunzea*, with the habit of *Calluna vulgaris*; a leguminous plant, like *Templetonia retusa* (which latter I formerly found on Spencer's Gulf), both out of flowers and fruit; a broad-leaved *Celmisia*; a species of *Wilsonia*, apparently distinct from *W. Backhousii*; a dwarf *Leucopogon*, which I formerly saw from Van Diemen's Land, and met with here for the first time. *Leucopogon obtusatus* is abundant; *Gaultheria hispida* is scattered here and there, and descends sometimes to lower localities; the natives are very fond of its fruit. The plant which I called, in my second annual report, *Eriostemon phyllicoides*, proves, by its flowers, which I have observed for the first time, to be a *Phebalium*, and is one of the finest species of this ornamental genus. *Grevillea australis*, *Euryomyrtus alpina*, *Bossiaea distichoclada*, *Oxylobium alpestre*, *Hovea gelida*, *Ozothamnus Hookeri*, *Exocarpus humifusa*, *Eurybia megalophylla*, *Goodenia cordifolia*, *Celmisia asteliaefolia*, *Ranunculus scapiger*, *Geranium brevicaule*, *Callistemon Sieberi*, *Hibbertia minutifolia*, *Brachycome nivalis*, *Symphyonura Filicula*, *Gentiana Diemensis*, *Mniarum biflorum*, a species of *Oreobolus*, *Lomaria alpina*, etc., all grow also on Mount Wellington. On the swampy table-land, about 4000 feet high, occur *Didiscus humilis*, *Ani-*

sotome simplicifolia, *Epacris heteronema*, *Myriophyllum simplicifolium*, *Pimelea ligustrina*, a species of *Andreæa* (unfortunately not found in fruit), and a *Patersonia*, which I shall call, as the only Irideous plant here to be found at such a height, *P. subalpina*: it appears to be quite distinct from *P. sericea*, a plant of the warmer parts of Australia; I saw only the decayed seed-vessels of it, whilst *P. longiscapa* and *P. glauca* are nearly out of flower in the lower country; the leaves are 4-6 inches long, ciliated, unequally streaked; the scape is half as long as the leaves, compressed upwards, and thickened, and throughout, with the spatha, silky-pubescent.

In the country between Melbourne and Mount Wellington I observed little of interest. Additions to my list were *Emex australis*, *Drosera spathulata*, *Chaetospora mniaroides*, *Gastrodia sesamoides*, *Pterostylis acuminata*, *Lecanora byssacea*, a *Chorizanthes* (growing out of the stems of the tree-ferns), a few additional Mosses, a splendid *Cassia*, which may be new, a pretty *Pomaderris*, with which as yet I am unacquainted, a *Lepidosperma*, probably distinct from *L. flexuosum*; a *Eurybia*; an excellent *Grevillea*, belonging to Section *Lissostylis*, forming a considerable bush, with flat, large, ovate leaves, downy beneath: this *Grevillea* is undescribed in Robert Brown's 'Prodromus,' but perhaps exists amongst Sieber's or Cunningham's plants. Finally, I have yet to mention a *Daviesia*, almost intermediate between *D. latifolia* and *D. ruscifolia*, with heart-shaped, dark green, shining leaves, which are sessile and smaller than in *D. latifolia*, but participate in their bitterness (native Hop); the racemes are corymbose; it differs from *D. ruscifolia* in its leaves and twigs not being pungent: a kind of *Pleurandra*, perhaps distinct from *P. stricta*, and *Dillwynia parvifolia* grow alongside of it; all three are equally beautiful.

I am preparing now for an ascent of the Bogong mountain, which is probably higher than Mount Caskinsko, in New South Wales; it is at all events the king of the mountains in Victoria, and I trust that I shall be able to surmount the difficulties on the long way to it; it is the real centre of the Australian Alps, and I hope it will furnish me with many desiderata of the Tasmanian alpine plants, for which I have been hitherto looking in vain.

Botanic Gardens, Melbourne, April 26, 1855.

Being disappointed in getting all my alpine collections together by

this time, I have been unable to make up such a collection by the 'Red Jacket' as would have been worth sending to you; as this however is one of the regular clippers, I will not lose time in forwarding to you a few lines.

Professor Harvey, that excellent and learned man, will leave our shores in a day or two for Sydney, proceeding probably to Moreton Bay. You may imagine what pleasant hours I have spent with him. He supplied the Government collection and my own herbarium with a beautiful set of *Algæ*, and had the kindness to arrange my own, so that I have ample materials for working now and then a little at this interesting order of plants. We made also some selections of duplicates from my *Phanerogamæ* for the Dublin collection.

In a letter, which I despatched about a fortnight ago, I gave some additional information on the flora of the Alps, having subjected several of my plants to an analysis, viz. *Caltha Novæ-Zelandiæ*, *Boronia algida*, *Phebalium ovalifolium*, *Drapetes Tasmanica*, *Diplaspis Hydrocotyle*, *Ranunculus anemoneus*, *Euphrasia alsa*, *Drosera Arcturi*, *Ranunculus Milani*, *Herpetolirion Tasmaniæ*?, a new genus of *Umbelliferae*, distinct from all in having ten petals, or rather five petaloid sepals = *Dichopetalum ranunculaceum*, *Pæderota densifolia*: there are, besides, a few other beautiful species, but I have not yet examined them.

Our botanic garden offered also two new plants this year: one, *Greevesia cleisocalyx*, was raised from seeds collected by Mr. Bunce, in the second expedition of the unfortunate Dr. Leichhardt: it is a most extraordinary genus of *Malvaceæ*, differing from *Pavonia* and the thousand other known species of the Order in having a *closed calyx*! which bursts only when the fruit becomes perfectly ripe: the little corolla *never* expands, and sees consequently *no* daylight until long after fecundation! The other is a herbaceous *Sesbania*, allied to *S. picta*, which, as the species mentioned by Sir Thomas Mitchell remained undescribed, I will call *Sesbania Australis*; Mitchell's plant however must be distinct, for mine is not allied to *S. aculeata*. I have been also fortunate enough to discover a third new genus of *Malvaceæ* on Lake King. I was at first reluctant to remove it from *Lagunea*; but the undivided style, with a trilobed, club-shaped stigma, the trilocular capsule, which encloses a slight quantity of free short hair, the habit of the plant, and what may seem extraordinary, the suppression of stipules, induced me to separate it as *Howittia trilocularis*. Lindley

unites *Bombaceæ* and *Sterculiaceæ*; still the former have one-celled anthers, as far as I see in your *Plagianthus sidoides*. He gives, as a general character, two-celled anthers; is that correct?

I have bought a set of Mr. Wilhelm's plants, collected this year in the Port Lincoln district; it contains but little novelty. The descriptions of the new species I have worked out, and transmit them to you; they may be published separately, as they comprise South Australian plants. The new genus *Pleuropappus* is most singular, and the occurrence of *Verticordia* so far east is also interesting. I shall send the set to you by the next mail-vessel, together with some alpine plants. I hope to be this year more fortunate than last with my new genera. I ascertained, by a careful examination, that *Psoraleopsis* is identical with *Lespedezia juncea*, Pers.

I also beg to enclose a list of plants which I am desirous to introduce into the colony. If your rich establishment could supply some of them, I should be delighted. An additional genus of *Laurineæ* occurs also in my new collection for the flora of Australia: its calyx is four-parted, but the plant was unfortunately so little developed, that it will be difficult to determine it. It is a noble tree, about 40 feet high.

By the next opportunity I intend to send, through a friend who is going home, *Azolla rubra* in a living state, and also all the Fungi which I possess, for Dr. Harvey tells me that Mr. Berkeley probably will easily determine and describe them.

My next report may possibly give the names of 400 additional species for the flora of this colony, more than 200 being *Algæ*, either from Dr. Harvey's or my own collection. Some of Dr. Harvey's novelties are magnificent.

*Botanical Notices on a Journey into the Interior of SOUTHERN AFRICA,
in company with Mr. Burke; by CHARLES L. ZEYHER.*

(Continued from p. 334.)

Our march the following day towards the Mooyerivier, which we intended to reach the same day, led us over grassy plains again, but which were bounded by little hills in various directions, numerous herds of Burchell's zebra racing over those flats, or gazing at our party at intervals as we passed by. We reached the river towards sunset, and observing



Mueller, Ferdinand von. 1855. "Botany of Victoria (Southern Australia).
Extracts of letters from Dr. Ferdinand Mueller, Colonial Botanist, Victoria."
Hooker's journal of botany and Kew Garden miscellany 7, 357–362.

View This Item Online: <https://www.biodiversitylibrary.org/item/6325>

Permalink: <https://www.biodiversitylibrary.org/partpdf/172317>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.