

ART. LIII.—*Additional Contributions to the Flora of the Nelson Provincial District.*

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IN the fourteenth volume of the Transactions, Mr. Cheeseman has given a valuable catalogue of plants observed by him in the Provincial District of Nelson. I now venture to supplement his list with an enumeration of the species collected during my hasty visits to different parts of the district, and which do not appear to have come under his notice. I have added a few species, of which specimens have been given to me by Mr. P. Lawson, who resided in Nelson for two years; the Rev. F. H. Spencer, now of Reefton; and Mr. D. Grant, of Nelson: the authority being stated in each case. A few localities are stated for such plants as *Mimulus repens*, *Epacris pauciflora*, *Lomaria fraseri*, etc., etc., inserted by Mr. Cheeseman on the authority of the "Handbook of the New Zealand Flora," but not actually observed by him.

Although the plants now catalogued form a material addition to the previous record, the chief interest lies in the importance of certain species from the phyti-geographical point of view: e.g., *Actinotus bellidioides*, *Liparophyllum gunnii*, *Metrosideros robusta*, *M. tomentosa*, *Schœnus nitens*, *Cladium teretifolium*, *Euphrasia disperma*, *Trichomanes humile*, etc., etc.; but our knowledge of the Flora of the district must be made more complete before we are able to appreciate their correct significance.

## RANUNCULACEÆ.

*Clematis afoliata*, J. Buch. Hanmer Plains; Wai-au-ua River.

*Ranunculus subscaposus*, Hook. f. Two forms of this plant are not uncommon by the Stanley River, and in other parts of the Amuri:—

- α. Erect, leaves on long petioles, excessively silky, peduncles stout, much shorter than the leaves.
- β. Much branched, sub-fluissant, hairy or almost glabrous; petioles short.

## CRUCIFERÆ.

*Lepidium oleraceum*, Forst. The Arrow Rock, H. B. Kirk!

## PITTOSPOREÆ.

*Pittosporum patulum*, Hook. f. Spencer Mountains.

## HYPERICINEÆ.

*Hypericum gramineum*, Forst. Nelson.

## MALVACEÆ.

- Hoheria populnea*, A. Cunn.;  $\beta$ . *lanceolata*. Takaka Valley, etc.  
*Hibiscus trionium*, L. South Wanganui, Lyell ("Handbook");  
 near Collingwood.

## TILIACEÆ.

- Aristotelia colensoi*, Hook. f. Rotoiti; Lyell, etc.  
*Elæocarpus dentatus*, Vahl. Near Westport; Takaka Valley,  
 etc., etc.

## ANACARDIACEÆ.

- Corynocarpus lævigata*, Forst. A single specimen grows near  
 Karamea, J. H. Jennings; also reported to occur  
 in the vicinity of Collingwood.

## CORIARIÆ.

- Coriaria angustissima*, Hook. f. Spencer Mountains.

## LEGUMINOSÆ.

- Carmichaelia grandiflora*, Hook. f. Lyell, and other places in the  
 Valley of the Buller.  
*Swainsonia nova-zealandia*, Hook. f. Above Fowler's Pass;  
 Spencer Mountains.

## ROSACEÆ.

- Geum uniflorum*, J. Buch. Spencer Mountains.

## HALORAGÆ.

- Myriophyllum pedunculatum*, Hook. f. Near Cape Farewell.  
*Gunnera densiflora*, Hook. f. Descends to the sea level at Cape  
 Farewell Spit.  
 ,, *prorepens*, Hook. f. Mokihinui.

## MRYTACEÆ.

- Metrosideros parkinsonii*, J. Buch. Aorere Valley.  
 ,, *robusta*, A. Cunn. From Greymouth northwards to  
 Cape Farewell, common; Collingwood; Aorere  
 Valley; Takaka and Riwaka Valleys, etc.  
 ,, *tomentosa*, A. Cunn.

Mr. Macallister, of the Telegraph Department, informed me that this species was plentiful on the cliffs between Riwaka and Waitapu, where it occurred in sufficient quantity to furnish the framework of a small vessel built there a few years ago. I was also assured by a surveyor that one or two trees were still standing on a point between Takaka mud-flats and Collingwood. At a point nearer Collingwood I found several stunted plants from 1 to 2 feet high on the face of a cliff; but as the leaves had not assumed the tomentose condition characteristic of the mature state of this species, I hesitate to pronounce them identical, although their leaves are broader than those of *M. robusta*, the only species which could be mistaken for it.

Mr. Macallister was so well acquainted with the pohutukawa in Auckland, that it is not probable he is mistaken in the identification. At the same time, its occurrence in the South Island is so unexpected that it is most desirable to obtain specimens of the Waitapu plant in the mature state.

*Myrtus bullata*, Banks and Sol. In one place near the Dun Mountain track; also by the road to the copper mine; Mr. Buckeridge.

I did not see this plant in the Nelson district, but Mr. Buckeridge, of the Survey Department, who was my travelling companion through the Rai Valley, where it is plentiful, informed me that he had observed it in the localities mentioned above. It is common about Picton, and in other localities in Marlborough.

*M. ralphii*, *M. obcordata*, and *M. pedunculata*, were observed by Dr. Boor and myself growing in close proximity in one of the lateral valleys of the Maitai, in 1873, but we searched in vain for *M. bullata*.

#### ONAGRARIÆ.

*Epilobium confertifolium*, Hook. f.;  $\beta$ . *tenuipes*. Spenser Mountains.

„ *alsinoides*, A. Cunn. Abundant in many parts of the district.

#### UMBELLIFERÆ.

*Hydrocotyle americana*, Arn. Mokihinui, etc.

„ *asiatica*, L. Aorere Valley, etc.

„ *muscosa*, Br. Lake Guyon.

„ *pterocarpa*, F. Müller. Mokihinui.

*Pozoa haastii*. Hook. f. Spenser Mountains.

*Ligusticum haastii*, F. Müell. Spenser Mountains.

*Angelica decipiens*, Hook. f. Mount Captain Range, Amuri.

*Actinotus bellidioides*, Beush. Var. *novæ-zelandiæ*. Mount Rochfort, Rev. F. D. Spenser.

#### RUBIACÆ.

*Coprosma pumila*, Hook. f. Between Fowler's Pass and Lake Guyon, etc., etc.

Mr. Cheeseman states that he can find no distinguishing characters between this species and *C. repens*, and believes both to be forms of the same plant.

I am unable to accept this view, on account of the wide difference between the fruits of the two species, independently of other characters. The fruit of *C. pumila* is spherical, slightly depressed, crimson, small; while that of *C. repens* is ovoid, purple, translucent, the largest of the genus. At elevations of 3,000 feet and upwards, *C. pumila* becomes nearly herbaceous; but *C. repens* invariably retains its ligneous habit, even at the extreme altitude of 4,500 feet.

In "Handbook of the N.Z. Flora" the fruit of *C. pumila* is described as that of *C. repens* also.

COMPOSITÆ.

*Cotula australis*, Hook. f. Wakapuaka, etc., etc.  
*Senecio sciadophilus*, Raoul. Nelson; Rev. F. H. Spencer!

STYLIDICEÆ.

*Forstera bidwillii*, Hook. f. Rotoiti.  
*Phyllachne clavigera*, Beush. and Hook. f. Spenser Mountains.

ERICACEÆ.

*Epacris pauciflora*, A. Rich. Aorere Valley; Takaka Valley;  
 common about Waimangaroa, Westport, etc.  
*Dracophyllum latifolium*, A. Cunn. Riwaka Valley; Takaka  
 Valley; Aorere Valley; Waimangaroa.

JASMINEÆ.

*Olea lanceolata*, Hook. f. Wairoa.

GENTIANEÆ.

*Liparophyllum gunnii*, Hook. f. Mount Rochfort; Dr. Gaze.

CONVOLVULACEÆ.

*Cuscuta densiflora*, Hook. f. Nelson; P. Lawson.  
 „ sp. nov. Ahaura Plains.

SCROPHULARIÆÆ.

*Mimulus repens*, Br. Muddy places in Nelson Harbour; occurring  
 in great abundance during certain seasons, but  
 often extremely rare.

*Gratiola nana*, Beush. Rotoiti, 1875.

*Veronica macroura*, Hook. f. Tarndale; "Handbook N.Z. Fl."  
 „ *diosmaefolia*, R. Cunn. A plant, of which I found speci-  
 mens in the Maitai Valley, but in an imperfect con-  
 dition, is doubtfully referred to this for the present.

„ *canterburiense*, J. B. Armstrong. Rotoiti, etc.  
*Pygmæa ciliolata*, Hook. f. Amuri.

*Euphrasia cuneata*, Forst. Aorere River.

„ *disperma*, Hook. f. Mount Rochfort, Rev. F. H.  
 Spencer; Ahaura Plains, T.K.

LENTIBULARIÆÆ.

*Utricularia monanthos*, Hook. f. Lake Guyon.

CHENOPODIÆÆ.

*Rhagodia nutans*, Br. The Brothers; near Westport, Dr. Gaze.

*Chenopodium urbicum*, L. Amuri; Hanmer Plains.

„ *pusillum*, Hook. f. Nelson, Professor F. W. Hutton!  
*Atriplex cinerea*, Poin. Nelson, P. Lawson!

PROTEACEÆ.

*Knightia excelsa*, Br. Croixelles Harbour.

## THYMELEÆ.

- Pimelea traversii*, Hook. f. Amuri.  
 „ *arenaria*, A. Cunn. Cape Farewell.

## LORANTHACEÆ.

- Loranthus micranthus*, Hook. f. Waimangaroa; Mokihinui, etc.

## EUPHORBIACEÆ.

- Euphorbia glauca*, Forst. Cape Farewell, etc.

## CUPULIFERÆ.

- Fagus blairii*, T. Kirk. Valley of the Little Grey River.

## CONIFERÆ.

- Podocarpus acutifolius*, T. Kirk. Hope Valley; Rotoiti, etc.  
*Dacrydium westlandicum*, T. Kirk. Aorere Valley, and other places on the West Coast as far South as Grey-mouth.

## ORCHIDEÆ.

- Earina autumnalis*, Hook. Lower part of the Valley of the Buller.  
*Dendrobium cunninghamii*, Linde. Aorere Valley; Mokihinui; Westport.  
*Bolbophyllum exiguum*, F. Müell. Collingwood; "Trans. N.Z. Inst.," vol. xvi., p. 397.  
*Acianthus sinclairii*, Hook. f. Nelson, *H. B. Kirk!*  
*Adenochilus gracilis*, Hook. f. Nelson, *P. Lawson*, 1869.  
*Caladenia minor*, Hook. f. Port Hills, Nelson, etc.  
*Pterostylis micromega*, Hook. f. Lake Guyon.  
*Prasophyllum nudum*, Hook. f. Dun Mountain, *H. H. Travers!* in Colonial Museum.  
*Calochilus paludosus*, Br. Collingwood; "Trans. N.Z. Inst.," vol. xvi., p. 397.

## NAIADÆ.

- Potamogeton oblongus*, Vir. Takaka Valley; Aorere Valley; Mokihinui.  
*Zostera nana*, Rosh. Takaka mud-flats.

## LILIACEÆ.

- Astelia cunninghamii*, Hook. f. On the western side of the district from Collingwood to Charleston, but somewhat local.  
 „ *grandis*, Hook. f. Lowland swamps on the West Coast.  
 „ *solandri*, A. Cunn. Not uncommon on the West Coast.  
 „ *trinervia*, T. Kirk. Between Wakapuaka and the Rai Valley.  
*Arthropodium cirrhatum*, Br. West Wanganui, *Mr. R. Hursthouse*, M.H.R.!

## JUNCEÆ.

- Juncus brevifolius*, T. Kirk. Rotoiti.  
 „ *involutatus*, T. Kirk, Amuri.

## RESTIACEÆ.

- Centrolepis monogyna*, Beush. Mount Rochfort, Rev. F. H. Spencer.

## CYPERACEÆ.

- Sclenus axillaris*, Hook. f. Aorere Valley, etc.  
 „ *tenax*, Hook. f. Aorere Valley.  
 „ *tendo*, Hook. f. Aorere Valley.  
 „ *nitens*, Hook. f. Cape Farewell Spit.  
*Eleocharis sphacelata*, Br. Takaka Valley.  
 „ *acuta*, Br.; var. *platylepis*. Motueka; Aorere Valley;  
 and other places; common.  
 „ *gracillima*, Hook. f. Aorere Valley.  
*Isolepis inundatus*, Br. Aorere Valley, etc.  
*Cladium glomeratum*, Br. Takaka Valley; Aorere Valley;  
 West Coast.  
 „ *teretifolium*, Br. Aorere Valley.  
 „ *gunnii*, Br. Aorere Valley; West Coast.  
*Gahnia rigida*, T. Kirk. Aorere Valley; Ngakawau.  
*Oreobolus filiformis*, Bergg. Mount Rochfort.  
*Uncinia ferruginea*, Booth. Ngakawau; Mokihinui; West-  
 port.  
*Carex viridis*, Petrie. Valley of the Stanley, Amuri.

## GRAMINEÆ.

- Stipa micrantha*, Car. Upper part of the Takaka Valley, Rev. F. H. Spencer!  
*Apera arundinacea*, Hook. f. Nelson.  
*Sporobolus indicus*, R. Br. A few tufts on the Port Hills, Nelson, 1873, Capt. D. Rough and T. Kirk.  
*Agrostis pilosa*, A. Rich. Abundant in the Amuri.  
*Phragmites communis*, Fries. Valley of the Little Grey, Dr. von Haast.  
*Catabrosa antarctica*, Hook. f. Mount Arthur, J. Buchanan;  
 “Indigenous Grasses of N.Z.”  
*Poa lindsayi*, Hook. f. Amuri.  
 „ *pusilla*, Bergg. Amuri.  
 „ “*intermedia*,” J. Buch. Rotoiti.  
 „ *selerophylla*, Bergg. Mount Captain Range.  
 „ “*uniflora*,” J. Buch. Mount Arthur; “Indigenous Grasses of N.Z.”  
*Bromus arenarius*, Lab. Cape Farewell.

## FILICES.

- Gleichenia circinata*, Swartz. Aorere Valley, and West Coast.  
 „ *cunninghamii*, Heward. Aorere Valley, and West Coast to Greymouth.  
*Cyathea cunninghamii*, Hook. f. Bateman's Gully, *D. Grant!*  
*Hymenophyllum cheesemanii*, Baker. Mokihinui.  
*Trichomanes elongatum*, A. Cunn. Collingwood, *D. Grant!*  
 „ *humile*, Forst. Happy Valley, Nelson, *D. Grant!*  
*Lindsaya linearis*, Sw. The Port Hills, *D. Grant!* Collingwood.  
 „ *trichomanoides*, Dryander. Foxhill; Collingwood, *D. Grant!*  
*Adiantum hispidulum*, Swartz. Bishopdale, *D. Grant!*  
 „ *diaphanum*, Willd. Bateman's Gully, *D. Grant!*  
 „ *fulvum*, Raoul. Nelson; Mokihinui.  
*Pellaea falcata*, Br. Mr. A. Collins' Bush, near Nelson, *D. Grant!*  
*Lomaria membranacea*, Col. Nelson; Bishopdale, etc., *D. Grant!*  
 „ *banksii*, Hook. f. West Wanganui, etc., *D. Grant!*  
 „ *nigra*, Col. Collingwood, *D. Grant!*  
 „ *fraseri*, A. Cunn. West Coast, as far South as Charlestown, but somewhat local.  
*Doodia media*, Br. Port Hills, Nelson.  
*Polypodium tenellum*, Forst. Not unfrequent in Suburban North, Nelson; Poor Man's Valley, etc.; *D. Grant!*  
*Schizæa fistulosa*, Lab. Aorere Valley.

## LYCOPODIACEÆ.

- Lycopodium laterale*, Br. Aorere Valley; plentiful.  
*Tmesipteris forsteri*, Endlicher. On tree ferns, Maitai Valley; very local.

## ADDENDA.

The following are stated to have been collected on Mount Franklin, by Mr. Park of the Geological Survey Department, on the authority of Mr. J. Buchanan ("Trans. N.Z. Inst.," vol. xvii., p. 356):—

- Ranunculus lyallii*, Hook. f.  
*Cotula pectinata*, Hook. f.  
*Gentiana concinna*, Hook. f.\*  
*Veronica linifolia*, Hook. f.  
 " *Mitrasacne cheesemanii*," J. Buch.  
*Ourisia macrocarpa*, Hook. f.  
*Carex wakatipu*, Petrie.

\* Hitherto this species has only been recorded from the Auckland and Campbell Islands, and it is to be feared that a clerical error has occurred, Mount Franklin being a most unlikely habitat for a plant that can only exist when growing in peat.