

ART. LVII.—*List of the Flowering Plants indigenous to Otago, with Indications of their Distribution and Range in Altitude.*

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THE following list contains all the species of flowering plants which I have gathered in Otago and Stewart Island in the course of the last twenty years. In an appendix is given a list of additional plants recorded from the district which I have not myself observed in the field.

My explorations have been mainly confined to the eastern, central, and southern regions, the phanerogamic plants of which may now be said to be fairly well known, except as regards their distribution. The region lying to the west of the Lake District and the south-west corner are still but imperfectly known, and its higher mountains will doubtless yield a good many novelties to the adventurous collector who penetrates into these rather inaccessible wilds. The plants of the lowlands of the east and south are very much the same as are found generally in the lowlands of the eastern division of the South Island. Those of the higher mountains of the centre and north belong, with few exceptions, to the alpine flora that prevails throughout the central and southern regions of the Southern Alps.

The higher plains of the interior bear a small number of species that appear to be peculiar to these districts, but most of them will no doubt be found sooner or later in similar stations in the upper basins of the Canterbury rivers. Of this kind are various species of *Carmichaelia*, *Acæna*, *Lepidium*, *Raoulia*, and *Carex*, and of *Poa* and *Triodia* among grasses.

There is thus an unbroken continuity in the phanerogamic flora of the central and southern regions of the South Island, a fact in perfect keeping with their physical relations. The great valley of the Waitaki River hardly makes a greater break in the eastern plateau and in the character of the flora that flourishes on it than does any other of the great Canterbury rivers.

The Clutha Valley, on the other hand, from Lake Wanaka to Roxburgh, forms an important boundary-line, for a good number of the alpine plants found on the west of it do not appear to extend to the mountains lying to the east. The alpine plants, for example, found on the Dunstan Mountains, the St. Bathans Range, and the Mount Ida and Kurow Ranges, are in large measure different from the corre-

sponding flora on the higher mountains west of the Clutha Valley.

I have not found leisure to enter on any discussion of the questions of distribution which the facts recorded in the present paper suggest. To this I may return at some future opportunity. The only abbreviation used in the list that needs explanation is C., which stands for the *central region* of Otago.

- CLEMATIS INDIVISA, Willd.—Common in forests of E. and S.
- CLEMATIS FETIDA, Raoul.—Not rare on E., but local. Dunedin; Otepopo; Kaitangata.
- CLEMATIS COLENSOI (?) Hook. f.—Matukituki Valley.
- CLEMATIS MARATA, Armstr.—In scrub of E. and C. Kurow; Tuapeka R.; Hyde.
- CLEMATIS AFOLIATA, Buchanan.—Awamoko; Duntroon.
- MYOSURUS ARISTATUS, Benth.—Hyde; Beaumont; Speargrass Flat; Ida Valley; Lake Wanaka.
- RANUNCULUS LYALLII, Hook. f.—Mountains near Mount Aspiring (3,500ft.—5,000ft.); Clinton Saddle, Te Anau (3,300ft.). Seems confined to mountains near western water-parting.
- RANUNCULUS BUCHANANI, Hook. f.—Hector Mountains; Humboldt Mountains (5,000ft. and above).
- RANUNCULUS HAASTII, Hook. f.—Mount St. Bathans and Mount Kyeburn, on loose shingle (4,000ft.—5,500ft.).
- RANUNCULUS SERICOPHYLLUS, Hook. f.—Mount Aspiring district (4,500ft.), and mountains west of Hunter River, Lake Hawea (over 5,000ft.).
- RANUNCULUS SINCLAIRII, Hook. f.—Maungatua, and mountains of E. side. (I am not sure that this may not rather prove a form of *R. gracilipes*, Hook. f.)
- RANUNCULUS PLEBEIUS, R. Br.—Throughout Otago; common in bush and open lands.
- RANUNCULUS LAPPACEUS, Sm., var. MULTISCAPUS.—Common throughout in open lands; ascending to 4,000ft.
- RANUNCULUS SUBSCAPOSUS (?) Hook. f.—A plant which I take to be a form of this species is not rare in mountain-valleys of C. and W.
- RANUNCULUS MACROPUS, Hook. f.—Near Port Molyneux.
- RANUNCULUS RIVULARIS, Banks and Sol.—Common in moist and boggy stations up to 2,000ft.
- RANUNCULUS ACAULIS, Banks and Sol.—Common on E. coast; Mount St. Bathans (3,500ft.).

RANUNCULUS GRACILIPES, Hook. f.—Mount Ida and Dunstan Ranges (3,000ft.—4,500ft.).

RANUNCULUS PACHYRHIZUS, Hook. f.—Old Man Range; Hector Mountains; Mount Pisa; Mount Cardrona; &c. (above 5,000ft.).

RANUNCULUS TERNATIFOLIUS, T. Kirk.—Swampy Hill; Port Molyneux; Catlin's district. Seems confined to E. lowlands.

RANUNCULUS DEPRESSUS, T. Kirk.—Shores of Lake Te Anau.

RANUNCULUS DEPRESSUS, var.—Mount Cardrona (4,500ft.). This may prove a distinct species. The fruit is still unknown.

RANUNCULUS TENUICAULIS, Cheeseman.—Swampy Hill; Lee Stream, sources of; Mount Kyeburn; Clinton Saddle, Te Anau (1,000ft.—3,000ft.).

RANUNCULUS BERGGRENI, Petrie.—Carrick Range (4,000ft.). Fruit still unknown.

RANUNCULUS CHORDORHIZOS, Hook. f.—Mount Kyeburn and Mount St. Bathans (4,000ft.). In fine shingle *débris*.

RANUNCULUS AREOLATUS, Petrie.—Mountains at head of Lake Wakatipu. Collected by Mr. A. C. Purdie.

RANUNCULUS NOVÆ-ZEALANDIÆ, Petrie.—Rock and Pillar and Old Man Ranges (above 4,000ft.). In rough shingly stations. Fruit still unknown.

RANUNCULUS KIRKII, Petrie.—Head of Paterson's Inlet. This is reported from Kew as a very distinct species, unlike any known from the Southern Hemisphere.

RANUNCULUS LIMOSELLA, F. von Mueller.—Maniototo Plain; Roxburgh. In shallow lagoons.

CALTHA NOVÆ-ZEALANDIÆ, Hook. f.—Old Man Range; Dunstan Mountains; and all mountains more to W. (above 4,000ft.).

DRIMYS COLORATA, Raoul.—Common in bush throughout.

NASTURTIUM PALUSTRE, DC.—Wet grounds and shallow water-pools throughout, up to 2,000ft.

SISYMBRIUM NOVÆ-ZEALANDIÆ, Hook. f.—Dry stations in mountains of E. and C., up to 2,500ft.

SISYMBRIUM NOVÆ-ZEALANDIÆ, var.—A very small, slender form. Dry stations, Waitaki district; Kurow; Duntroon; Otepopo R.

CARDAMINE HIRSUTA, L.—Abundant; has a great range in altitude.

CARDAMINE DEPRESSA, Hook. f.—Kurow Mountains, Mount Ida Range, and Hector Mountains (300ft.—3,000ft.).

CARDAMINE ENYSII, Cheeseman (MS.).—Mount Ida (4,000ft.), on bare, dry, rocky faces.

PACHYCLADON NOVÆ-ZEALANDIÆ, Hook. f.—Rock and Pillar Range, and all high mountains W. of it (above 4,000ft.).

CAPSELLA PROCUMBENS, Fries.—Waikouaiti; Oamaru; Dunedin. On spray-washed cliffs.

LEPIDIUM OLERACEUM, Forst.—E. coast, now rather rare; Oamaru; Port Chalmers; Catlin's.

LEPIDIUM SISYMBRIOIDES, Hook. f.—Kurow, on shingly flats and stony hill-slopes.

LEPIDIUM TENUICAULE, T. Kirk.—Oamaru; Hampden; Awamoko; Weston; Orepuki. Usually near the sea; but the specimens from Weston and Awamoko are the finest and best-grown I have seen. It grows only in salty spots.

LEPIDIUM KAWARAU, Petrie.—Bluff, near Gibbston, Kawarau River, and Duntroon (The Earthquakes). The Duntroon plant may be a distinct species. I have not succeeded in finding Mr. Kirk's *L. australe*, said to grow at the headland at Oamaru.

LEPIDIUM MATAU, Petrie.—Alexandra South, and Gimmerburn district. Confined to salty situations.

LEPIDIUM KIRKII, Petrie.—Gimmerburn; Bannockburn. Confined to salty situations.

NOTOTHLASPI ROSULATUM, Hook. f.—Mount Ida. I record this on the authority of Mr. P. Goyen, F.L.S., who has a sufficient knowledge of plants to recognise this very peculiar form.

VIOLA FILICAULIS, Hook. f.—Common in forests and scrub.

VIOLA CUNNINGHAMII, Hook. f.—Common up to 3,500ft., chiefly in open lands.

VIOLA HYDROCOTYLOIDES, Armstr.—Head of Paterson's Inlet.

MELICYTUS RAMIFLORUS, Forst.—Common in forests of E.

MELICYTUS LANCEOLATUS, Hook. f.—Dunedin; Catlin's; Seaward Bush. Nowhere abundant.

MELICYTUS MICRANTHUS, Hook. f.—Hampden; Waikouaiti; Dunedin; Catlin's. Uncommon in the S.; more abundant in the N.E.

HYMENANTHERA CRASSIFOLIA, Hook. f.—Dunedin; Hampden; Kurow; Clyde; Cromwell; Queenstown.

- HYMENANTHERA ANGUSTIFOLIA**, R. Br.—Catlin's; Kelso. Rare. This is doubtless Brown's species. I have never seen it in flower. It is almost leafless.
- PITTOSPORUM TENUIFOLIUM**, Banks and Sol.—Common in lowland forests throughout.
- PITTOSPORUM EUGENIOIDES**, A. Cunn.—Common in forests of the E. and S.E.
- GYPSOPHILA TUBULOSA**, Boiss.—Many dry localities in N.E. and C. It is uncertain if this plant is truly indigenous; but it does not spread rapidly or occupy the ground closely, as introduced weeds usually do.
- STELLARIA PARVIFLORA**, Banks and Sol.—Common in bush throughout.
- STELLARIA ELATINOIDES**, Hook. f.—Tuapeka Mouth; Sowburn; Speargrass Flat. A local plant, but not rare where it occurs.
- STELLARIA GRACILENTA**, Hook. f.—Common in dry mountain and lowland stations of C. and N., ascending to 4,000ft.
- COLOBANTHUS BILLARDIERI**, Fenzl.—Common in open lands. Stunted forms ascend to 4,000ft. and 5,000ft. in the mountains of the C. and W., on which they form large compact patches.
- COLOBANTHUS SUBULATUS**, Hook. f.—Kurov; Speargrass Flat; Cromwell; Queenstown; &c. Common in dry, low stations of C.
- COLOBANTHUS ACICULARIS**, Hook. f.—Kurov and Mount Ida Ranges (2,000ft.—3,000ft.).
- SPERGULARIA RUBRA**, Pers.—Tuapeka district, where it spreads rapidly by roadsides, and has every sign of being introduced.
- SPERGULARIA RUBRA**, var. *MARINA*.—Common on clay cliffs of E. coast.
- CLAYTONIA AUSTRALASICA**, Hook. f.—Common in moist stations of C., N., and W. up to 5,000ft.; sandhills at Dunedin.
- MONTIA FONTANA**, L.—Common in upland and mountain streams up to 4,500ft.
- HECTORELLA CÆSPITOSA**, Hook. f.—Rock and Pillar Range; Old Man Range; and all high mountains west of Clutha River (above 4,000ft.).
- ELATINE AMERICANA**, Arnott.—Strath Taieri; Maniototo Plain; Lake Wanaka; Lumsden; Lake Te Anau. On clay- and mud-banks, on edges of lagoons and sluggish streams; Wickliffe Bay, *fide* Mr. B. C. Aston.

- HYPERICUM GRAMINEUM**, Forst.—Common in lowlands of C., N., and N.E. A very variable plant.
- HYPERICUM JAPONICUM**, Thunb.—Less common than *H. gramineum*, equally widespread, and reaching a greater altitude, even to 3,000ft.
- PLAGIANTHUS BETULINUS**, A. Cunn.—Common on alluvial flats on E. and S.
- PLAGIANTHUS DIVARICATUS**, Forst.—Common on edge of salt lagoons and marshes along E. and S. coasts.
- PLAGIANTHUS LYALLII**, Hook. f.—Hector Mountains; head valleys of Pōmahaka; more plentiful in valleys of western mountains; Matukituki; Hunter River; Clinton River; &c.
- HOHERIA ANGUSTIFOLIA**, Raoul.—Not rare in lowland forests of E. and S.
- ARISTOTELIA RACEMOSA**, Hook. f.—Common in bush throughout. When bush is cleared and then neglected this tree grows up in great abundance.
- ARISTOTELIA FRUTICOSA**, Hook. f.—Swampy Hill; Romahapa; Eweburn Creek; Arrowtown; &c. Common in mountain valleys of C. and W.
- ELÆOCARPUS HOOKERIANUS**, Raoul.—Not rare in forests of E. and S. up to 2,000ft.
- LINUM MONOGYNUM**, Forst.—Common in sandy and rocky stations on E. and S. coasts. Rare inland, as at Kurow and Mount Ida Range.
- LINUM MARGINALE**, A. Cunn.—Rare and local. Dunedin; Miller's Flat; Clyde; St. Bathans.
- GERANIUM DISSECTUM**, L., var. **CAROLINIANUM**.—Not common. Kurow; Awamoko; Ngapara. Not observed in S. and C. districts.
- GERANIUM MICROPHYLLUM**, Hook. f.—Very common. Ascends to 4,000ft.
- GERANIUM SESSILIFLORUM**, Cav.—Common. Ascends to 4,000ft.
- GERANIUM MOLLE**, L.—Eastern region, not rare. In many localities this plant appears to be introduced.
- PELARGONIUM AUSTRALE**, Willd., var. **CLANDESTINUM**.—Not rare in open and fern lands.
- OXALIS CORNICULATA**, L.—Common in dry stations, but most abundant in C. district.
- OXALIS MAGELLANICA**, Forst.—Not rare in moist stations at 1,000ft. to 3,000ft. Dunedin; Horse Range; Rock and Pillar Range; &c.

- MELICOPE SIMPLEX**, A. Cunn.—Not rare in forests of E. and S.; less common inland. Beaumont; Clyde; Cambrians. Very often the host of *Viscum lindsayi*, Hook. f.
- PENNANTIA CORYMBOSA**, Forst.—Forests of E. and S., rather rare; chiefly on rich alluvial or volcanic lands.
- STACKHOUSIA MINIMA**, Hook. f.—Not rare in C. Naseby; St. Bathan's; Tinkers; Hawea Flat. Reaches 3,000ft. on Mount Ida and Dunstan Ranges.
- DISCARIA TOUMATOU**, Raoul.—Common in rich open lands and mountain valleys. Grows only in soils of high fertility.
- CORIARIA RUSCIFOLIA**, L.—Common in forests and valley-slopes of E. and S.; less common in the C. and W. districts.
- CORIARIA THYMIFOLIA**, Humb.—Common in open grass-lands, Horse Range; Waihemo; Tuapeka; &c.
- CORIARIA ANGUSTISSIMA**, Hook. f.—Not rare in high mountain valleys of C. and W. Eweburn Creek; Nevis River; Hunter River; Clinton Valley; &c.
- CARMICHÆLIA CRASSICAULIS**, Hook. f.—Nenthorn; Naseby; and westward to Dunstan Mountains. Local, and confined to the N.C. district.
- CARMICHÆLIA MONROI**, Hook. f.—Kurow; Mount Ida; Mount St. Bathan's; Carrick and Hector Mountains; and all mountains of Lake District. 200ft.—4,000ft.
- CARMICHÆLIA NANA**, Colenso.—Waitaki, Maniototo, and Lake Districts. Common on alluvial lowlands; ascends to 2,000ft.
- CARMICHÆLIA FLAGELLIFORMIS**, Colenso.—Common in open and scrubby lands throughout; ascends to 2,500ft.
- CARMICHÆLIA JUNCEA**, Colenso.—Lowlands of Waitaki, Maniototo, and Lake Districts; ascends to 2,000ft.
- CARMICHÆLIA ENYSII**, T. Kirk.—Spurs of Mount Ida Range, at Eweburn Creek; 3,000ft.
- CARMICHÆLIA UNIFLORA**, T. Kirk and J. Buch.—Head of Lake Hawea, alluvial flats.
- CARMICHÆLIA KIRKII**, Hook. f.—Rare and local. Otepopo River; valleys in east and west of Rock and Pillar Range; Sowburn.
- CARMICHÆLIA COMPACTA**, Petrie.—Kawarau and Clutha Gorges, between Arrowtown and Roxburgh.
- CARMICHÆLIA PETRIEI**, T. Kirk (MS.).—Valleys and terraces on east and west of Dunstan Mountains. Most abundant in Clutha Valley, north of Clyde.

- CARMICHÆLIA CORYMBOSA, Colenso, var.—Clinton Valley and head of Lake Te Anau. The flowers are unknown. This plant may prove a distinct species.
- CARMICHÆLIA ERECTA, Petrie.—Waitaki Valley, above and below Kurow, chiefly on the river-banks.
- CARMICHÆLIA DIFFUSA, Petrie.—Sea-coast north of Otepopo River.
- SWAINSONIA NOVÆ-ZEALANDIÆ, Hook. f.—Mount St. Bathans's (4,000ft.—5,000ft.). I found this plant here eighteen years ago, and have never succeeded in finding it again.
- SOPHORA TETRAPTERA, Aiton.—Alluvial flats of E. and S., and river-terraces and dry hill-slopes of C. and N. The mountain forms are in several ways different from the lowland ones.
- RUBUS AUSTRALIS, Forst.—Common in forests and scrubby valleys throughout. Everywhere exceedingly variable.
- POTENTILLA ANSERINA, L.—In wet and swampy stations throughout; ascends to 3,000ft. I think this plant must be considered truly indigenous.
- GEUM URBANUM, L., var. STRICTUM.—Not rare by sides of lowland streams up to 2,000ft.
- GEUM PARVIFLORUM, Commerson.—Common in mountain valleys of C. and W. (2,000ft.—4,000ft.). Most easterly stations, Kurow and Kakanui Mountains.
- GEUM LEIOSPERMUM, Petrie.—Upper Waipori; Cambrians; Mount Cardrona (above 1,500ft.).
- GEUM PUSILLUM, Petrie.—Old Man Range (4,000ft.).
- ACÆNA SANGUISORBÆ, Vahl.—Common in open lands and edges of bush.
- ACÆNA ADSCENDENS, Vahl.—Not rare on the mountains and in the higher mountain-valleys of C. and W. Old Man Range; Hector Mountains; Mount Pisa; Mount Cardrona; &c. (3,000ft.—5,500ft.).
- ACÆNA MICROPHYLLA, Hook. f.—Not uncommon in lowlands and lower mountain valleys of C. and S. Rare near Dunedin.
- ACÆNA BUCHANANI, Hook. f.—Common in Clutha Valley above Cromwell.
- ACÆNA INERMIS, Hook. f.—Not uncommon in dry mountain valleys of N. and C. Naseby; Clyde; Hunter Valley; &c. I do not think this specifically distinct from *A. microphylla*, Hook. f. Complete series of intermediate forms can be gathered in many districts.



- ACÆNA DEPRESSA*, T. Kirk. — Cardrona Valley; Matukituki Valley. I consider this species a form of *A. microphylla*, Hook. f.
- ACÆNA NOVÆ-ZEALANDIÆ*, T. Kirk.—Otago Heads; Manuka Creek district. This plant spreads very readily in barren cultivated pastures, as does also *A. sanguisorbæ*, Vahl.
- ACÆNA GLABRA*, Buchanan.—Mount Ida (3,500ft.).
- CARPODETUS SERRATUS*, Forst.—Common in forests of E. and S., more rare in the valleys of the W. Matukituki Valley.
- WEINMANNIA RACEMOSA*, Forst.—Dunedin (rare).—Abundant in forests south of mouth of Taieri.
- TILLÆA MOSCHATA*, DC.—Sparingly on spray-washed cliffs of E. coast.
- TILLÆA SINCLAIRII*, Hook. f.—Waiholā; Waikouaiti. More common in the inland plains of the C. and S. in wet stations.
- TILLÆA VERTICILLARIS*, DC.—Common throughout; more succulent near the coast.
- TILLÆA PURPURATA*, Hook. f.—Moist stations near Pembroke. A very local plant, and most easily overlooked.
- TILLÆA MULTICAULIS*, Petrie.—Maniototo and Manuherikia Plains, 1,200ft.—2,800ft.
- TILLÆA NOVÆ-ZEALANDIÆ*, Petrie.—Lake Waiholā; Waipahi. The plant from Te Anau formerly referred by me to this species is most likely a form of *T. sinclairii*. The Lake Waiholā and Waipahi plants may prove distinct when better known.
- DROSERA STENOPETALA*, Hook. f.—Frazer Peaks, Stewart Island; Longwood Range; Hector Mountains. Not seen on any of the mountains of the E. or N.
- DROSERA ARCTURI*, Hook.—Common on high mountain-bogs. Maungatua; Blue Mountains; &c.
- DROSERA SPATHULATA*, Labill.—Mouth of Clutha River; Catlin's; lowlands of Southland. Ascends to 3,000ft. on Blue Mountains.
- DROSERA BINATA*, Labill.—Lowland boggy stations from mouth of Clutha River to Riverton. This seems to be a strictly lowland plant. It occurs at 1,000ft. near Pembroke, the highest station known to me.
- HALORAGIS ALATA*, Jacq.—Not rare in the E. Dunedin; Otepopo; Palmerston. A very uncommon plant inland.
- HALORAGIS TETRAGYNA*, Labill, var. *DIFFUSA*.—Hills about Dunedin and near E. coast at 2,000ft. or less; more com-

mon on mountains of interior and W., there ascending to 3,000ft. or more. This plant is steadily spreading on hill-sides denuded by fire or close cropping by sheep or rabbits.

*HALORAGIS DEPRESSA*, Hook. f.—Abundant in open and even scrubby lands, and very variable.

*HALORAGIS MICRANTHA*, Hook. f.—Moist hillsides throughout the district; local, but widespread.

*HALORAGIS UNIFLORA*, T. Kirk.—Dunedin; Kelso; Maniototo Plain; and plains of Upper Clutha and its affluents. I cannot distinguish this from *H. depressa*, Hook. f. At Signal Hill, near Dunedin, all states between *H. uniflora* and *H. depressa* can be readily found.

*HALORAGIS SPICATA*, Petrie.—River-flats at head of Lake Hawea. At Kew this is reckoned a distinct species, but a fuller knowledge of intermediate forms may possibly unite it with *H. depressa*. Such intermediate forms are as yet unknown.

*MYRIOPHYLLUM ELATINOIDES*, Gaudichaud.—Not rare in lagoons and sluggish streams. Lake Waihola; Taieri Plain; Maniototo Plain; &c.

*MYRIOPHYLLUM VARIÆFOLIUM*, Hook. f.—Not rare in same stations as the foregoing species.

*MYRIOPHYLLUM PEDUNCULATUM*, Hook. f.—Not uncommon in miry bogs and wet grounds. Taieri Plain; Inch-Clutha; Lumsden; Roxburgh; Maniototo Plain; &c.

*GUNNERA MONOICA*, Raoul.—Common on wet banks.

*GUNNERA OVATA*, Petrie.—Kaikorai Swamp; Inch-Clutha; Catlin's; Hindon; and many boggy localities, among *Sphagnum*.

*GUNNERA DENTATA*, T. Kirk.—Not rare in the silt of river-beds in the mountain valleys of the far W. Matukituki Valley; Hunter River; head of Lake Wakatipu; Lake Te Anau. This is a strictly western species. It seems not to pass E. of the Lake District, and is absent from the middle region of Otago.

*CALLITRICHE VERNA*, L.—Not rare in slow streams; more common inland than in the E. and N.

*LEPTOSPERMUM SCOPARIUM*, Forst.—Abundant in scrub on clay hills throughout.

*LEPTOSPERMUM ERICOIDES*, A. Rich.—As wide-spread as the preceding, but not so plentiful.

*METROSIDEROS LUCIDA*, Sm.—Common in forests of the S. Northern limit on E. is at Taieri Mouth. A few small trees grow at Lake Wakatipu.

**METROSIDEROS HYPERICIFOLIA**, A. Cunn.—Common in forests of E., S., and W.

**MYRTUS OBCORDATA**, Hook. f.—Not rare in forests of E. and S.; sparingly found in the Lake District.

**MYRTUS PEDUNCULATA**, Hook. f.—Not rare in forests of E. and S. Ascends to 2,500ft.

**FUCHSIA EXCORTICATA**, L. f.—Common in forests of E. and S. This tree grows up very readily in neglected bush-clearings, where *Aristotelia racemosa*, Hook. f., generally accompanies it.

**FUCHSIA COLENSOI**, Hook. f.—Not rare on edges of bush and in open valleys inland. Dunedin; Lawrence; Horse Range; Cambrians; &c.

**EPILOBIUM CHIONANTHUM**, Hausskn.—Not rare in lowland boggy stations. Dunedin; Port Molyneux; Catlin's; Moa Flat; Te Anau; &c.

**EPILOBIUM JUNCEUM**, Solander.—Common in dry stations throughout the district.

**EPILOBIUM PALLIDIFLORUM**, Solander.—Common in lowland bogs. Dunedin; Taieri Plain; Kaitangata; Catlin's; Kelso; Lumsden; &c.

**EPILOBIUM BILLARDIERIANUM**, Seringe (= *E. tetragonum* of the Handbook).—Common in moist lowlands of E. and S. Kakanui; Waikouaiti; Otago Heads; Dunedin; Catlin's; &c.

**EPILOBIUM PUBENS**, Lesson and Richard.—Common in dry stations throughout, both in bush and in open stations.

**EPILOBIUM CONFERTIFOLIUM**, Hooker.—Not uncommon on the mountains of C. and W.: Old Man Range (4,000ft.); Hector Mountains; &c. Also in mountain valleys, at 1,200ft. and upwards: Arrowsmith; valleys of Mount Ida; and valleys of Lake District.

**EPILOBIUM HECTORI**, Hausskn.—Apparently not rare in mountain valleys of the C. and W. Mount St. Bathans; Old Man Range. I do not feel quite certain of my identification of this species.

**EPILOBIUM ALSINOIDES**, A. Cunn.—Common in lowlands and the lower mountain-slopes throughout. Dunedin; Naseby; Tapanui; head of Lake Wakatipu; &c.

**EPILOBIUM ROTUNDIFOLIUM**, Forster.—Common in wet stations in bush, and in moist valleys of interior. Dunedin; Catlin's; Cromwell; Arrowsmith; Roxburgh; &c.

- EPILOBIUM INSULARE*, Hausskn.—Not rare in lowland boggy stations. Kaitangata; Catlin's; Heriot; Lumsden; Dunedin.
- EPILOBIUM LINNÆOIDES*, Hooker.—Rather uncommon; in moist stations in bush. Dunedin; Catlin's; Seaward Bush; Lake Te Anau; &c.
- EPILOBIUM NUMMULARIFOLIUM*, A. Cunn.—Common in the E. and in most parts of the interior up to 3,000ft.
- EPILOBIUM PEDUNCULARE*, A. Cunn.—Common in same stations as the foregoing, and probably identical with that species.
- EPILOBIUM GLABELLUM* (?), Forster.—Common on dry, open hills throughout. Tapanui; Cromwell; St. Bathans; Naseby; &c.
- EPILOBIUM ERUBESCENS*, Hausskn.—Not rare in mountain valleys of C., N., and W. Mount Ida; Arrow River; Clinton Valley; &c.
- EPILOBIUM MELANOCAULON*, Hooker.—Common in shingly valleys of C., N., and W. Naseby; Lake District; Te Anau; &c.
- EPILOBIUM MICROPHYLLUM*, A. Rich.—Common in dry plains and valleys of E., C., and N. Waitaki Valley; Shag Valley; Maniototo Plain; Lake District; &c.
- EPILOBIUM CRASSUM*, Hooker.—Kurow Mountains (3,000ft.).
- EPILOBIUM MACROPUS*, Hooker.—Common by mountain-creeks and in upland runnels. Waipori; Old Man Range; Hector Mountains; higher valleys of Lake District.
- EPILOBIUM ROSTRATUM*, Cheeseman (MS.)—Naseby; Black's. In dry, shingly, and sandy stations.
- EPILOBIUM PICTUM*, Petrie.—Mountain valleys of C. St. Bathans; Mount Pisa (3,000ft.); Old Man Range.
- EPILOBIUM GRACILIPES*, T. Kirk.—Dunedin; Naseby; Tapanui; &c.
- MESEMBRYANTHEMUM AUSTRALE*, Sol.—Common on clay cliffs of E. coast. Oamaru; Shag Point; Dunedin; &c.
- TETRAGONIA TRIGYNA*, Banks and Sol.—Not rare on E. coast. Dunedin, &c.
- HYDROCOTYLE ELONGATA*, A. Cunn.—Common in lowland bush.
- HYDROCOTYLE AMERICANA*, L.—Common in bush throughout the district.
- HYDROCOTYLE ASIATICA*, L.—Common in moist, scrubby, and open lands of E. and S.; less common in the interior.

*HYDROCOTYLE MUSCOSA*, R. Br.—Somewhat rare; in wet situations throughout. Taieri Plain; Nevis Valley; Lake Wanaka; Lake Te Anau.

*HYDROCOTYLE DISSECTA*, Hook. f.—Catlin's district.

*HYDROCOTYLE NOVÆ-ZEALANDIÆ*, DC.—Widely spread in moist grassy lands. Dunedin; Taieri Plain; Lakes Hawea and Wanaka; Catlin's; Southland.

*HYDROCOTYLE MOSCHATA*, Forst.—Common on rather dry banks and slopes throughout.

*HYDROCOTYLE HYDROPHILA*, Petrie.—Moist seaside stations in the E. and S. Wickliffe Bay (B. C. Aston); Bluff (B. C. Aston); Otago Heads; Tomahawk Lagoon.

*POZOA EXIGUA*, Hook. f.—Hector Mountains (5,000ft.); Mount Cardrona (5,000ft.). Apparently a local plant, but easily overlooked.

*POZOA HAASTII*, Hook. f.—Not rare on the mountains of C. and W. Mount Ida; Mount St. Bathans; Mount Pisa; Clinton Saddle, Lake Te Anau (from 3,000ft.—4,500ft.).

*POZOA RENIFORMIS*, Hook. f.—Mountains east and west of Nevis Valley (3,000ft.).

*POZOA TRIFOLIOLATA*, Hook. f.—Not rare in forests of E. and S. Dunedin; Catlin's; Bluff Hill; &c.

*POZOA HYDROCOTYLOIDES*, Hook. f.—Kurow Mountains, and Mount St. Bathans (4,000ft.). This plant has almost disappeared from these stations, apparently from the increasing dryness of the summer season, caused by the growing bareness of the ground.

*POZOA (AZORELLA) NITENS*, Petrie.—Lake Te Anau; Matukituki Valley.

*CRANTZIA LINEATA*, Nutt.—Common in swamps on E. and S. coasts. Rare inland: Waitahuna; Maniototo Plain.

*APIUM AUSTRALE*, Thouars.—Common on cliffs and banks of E. and S. coasts.

*APIUM FILIFORME*, Hook.—In same stations as the preceding, but less common. Also inland at Blacks, and Lowburn (Cromwell).

*ERYNGIUM VESICULOSUM*, Labill.—Along sea-coast north of Oamaru. I have not observed this plant south of the mouth of the Kakanui River.

*OREOMYRRHIS COLENSOI*, Hook. f.—Common in rather dry, open stations; rarer in the S. and S.W. Swampy Hill; Mihiwaka; Macrae's; Ngapara; Kurow; St. Bathans; &c.

*OREOMYRRHIS HAASTII* (?), Hook. f.—Mount Cardrona (4,000ft.).  
I doubt if this species is truly distinct from the foregoing,  
which is a very variable plant.

*OREOMYRRHIS RAMOSA*, Hook. f.—Common on hill-slopes and  
in mountain valleys throughout. Dunedin; Outram;  
Speargrass Flat; Matukituki Valley; &c. A very variable  
plant. The fruits are sometimes glabrous and sometimes  
hispid, and they vary much in length and stoutness.

*ACIPHYLLA SQUARROSA*, Forst.—Not rare in the E. and S.  
Dunedin; Palmerston S.; Tuapeka, Maniototo, and Clutha  
Counties; &c. Now much less abundant than it was even  
twenty years ago. Seedlings are readily cropped by sheep  
and cattle, so that when old plants die off there are few  
young ones to take their place.

*ACIPHYLLA COLENSOI*, Hook. f.—Common in hilly and moun-  
tainous districts of C., S., and W. Dunedin; Waipori;  
Macrae's; &c. Less a lowland plant than the preceding.  
Ascends to nearly 4,000ft. on the mountains of C. and W.;  
descends to 600ft. near Dunedin.

*ACIPHYLLA MONROI*, Hook. f.—All high mountains of C. and  
W. (3,500ft.—6,000ft.). Mount Ida; Mount St. Bathans;  
Old Man Range; and many western stations.

*ACIPHYLLA DOBSONI*, Hook. f.—Mount St. Bathans, in shingle  
(6,000ft.).

*ACIPHYLLA MONTANA*, Armstrong.—Mountains near Mount  
Aspiring (4,000ft. and upwards).

*ACIPHYLLA TRAILLII*, T. Kirk.—Mount Ida Range (3,000ft.).

*ACIPHYLLA KIRKII*, Buchanan.—Hector Mountains, at 5,000ft.  
and upwards. I do not feel at all certain that this is dis-  
tinct from *A. montana*, Armstrong.

*ACIPHYLLA SIMPLEX*, Petrie.—Mount Pisa and Mount Car-  
drona (6,000ft.).

*LIGUSTICUM INTERMEDIUM*, Hook. f.—Catlin's; Nugget Point;  
and Port Pegasus.

*LIGUSTICUM HAASTII*, F. von Mueller.—Mount Tyndall; Mount  
Bonpland (4,000ft. and upwards). Confined to the far  
west of the district.

*LIGUSTICUM BRÉVISTYLE*, Hook. f.—Kurow and Mount Ida  
Ranges; Speargrass Flat; Kawarau Gorge; hills east and  
west of Nevis Valley. Descends to 800ft. south of Alex-  
andra.

*LIGUSTICUM PILIFERUM*, Hook. f.—Mountains north of Lake  
Hawea (4,000ft.).

- LIGUSTICUM AROMATICUM*, Banks and Sol.—Common in the E., C., and W. on the hills up to 4,500ft. Flagstaff Hill; Macrae's; Naseby; &c. A most variable plant, which may include more than one specific form. Like *L. brevistyle*, it is strictly dioecious.
- LIGUSTICUM IMBRICATUM*, Hook. f.—Mountains of C. and W., at 4,500ft. and upwards. Old Man Range; Dunstan Mountains; Mount Pisa; Hector Mountains; &c.
- LIGUSTICUM ENYSII*, T. Kirk.—Near Naseby (1,800ft.).
- ANGELICA GINGIDIUM*, Hook. f.—Common on moist banks and slopes. Now getting rather rare, as it is greedily eaten by stock.
- ANGELICA DECIPIENS*, Hook. f.—Probably not rare on the mountains of the W. Near Arrowtown; Mount Cardrona (5,000ft.); Mount Arrould; &c.
- ANGELICA GENICULATA*, Hook. f.—Not rare near E. coast on edge of bush. Dunedin, &c. I do not remember having observed this in the S. or the interior.
- ACTINOTUS NOVÆ-ZEALANDIÆ*, Petrie.—Blue Mountains (3,000ft.) and Stewart Island.
- DAUCUS BRACHIATUS*, Sieber.—Not rare in E. and N.E.; more common in dry stations in the interior.
- ARALIA LYALLII*, T. Kirk.—Paterson's Inlet.
- PANAX SIMPLEX*, Forst.—Not uncommon in forests of E., S., and W.
- PANAX EDGERLEYI*, Hook. f.—Rather rare in forests of the E. and S.
- PANAX ANOMALUM*, Hook. f.—Rare and local in E. and S.; more plentiful in the W. Waitati; Green Island; Lakes Te Anau and Wakatipu; &c.
- PANAX LINEARE*, Hook. f.—Clinton Valley (Te Anau).
- PANAX CRASSIFOLIUM*, Dene. and Planch.—Common in forests of E., S., and W.
- PANAX FEROX*, T. Kirk.—Rare and local. Dunedin; Otepopo; Lake Wakatipu. Only in fertile, well-drained stations.
- PANAX COLENSOI*, Hook. f.—Common in forests of E. and S., and on the higher slopes of the western valleys; rare in the centre. Ascends to 4,000ft.
- PANAX ARBOREUM*, Forst.—Rather rare. Dunedin.
- SCHIEFFLERA DIGITATA*, Forst.—Not rare in bottoms of valleys near E. coast. Dunedin; Catlin's; &c.

- GRISELINIA LITTORALIS, Raoul.—Abundant in forests of E. and S.; more rare in C. and W.
- LORANTHUS COLENSOI, Hook. f.—Chiefly, if not wholly, on *Fagus menziesii*. West Taieri; Catlin's; &c.
- LORANTHUS FLAVIDUS, Hook. f.—On *Fagus cliffortioides*, in forests of the W. Queenstown; Matukituki; Hunter River; &c.
- LORANTHUS MICRANTHUS, Hook. f.—Common on *Coprosma*, &c., in E. and S.
- LORANTHUS DECUSSATUS, T. Kirk.—On *Fagus menziesii* and *Fagus fusca*. Tapanui; Hunter Valley; Lake Te Anau; &c.
- TUPEIA ANTARCTICA, Cham. and Sch.—Not scarce in forests of E. and S. on *Pittosporum*, *Carpodetus*, &c.
- VISCUM LINDSAYI, Hook. f.—Rare and local. Many spots near Dunedin, on *Myrsine* and *Melicope*.
- VISCUM SALICORNIoidES, A. Cunn.—Rare and local. Several spots near Dunedin (Anderson's Bay, Pelichet Bay, &c.), on *Leptospermum* (both species).
- COPROSMA LUCIDA, Forst.—Common in forests of the S. and W. On the E. it hardly passes north of the mouth of the Taieri River. Lake Hawea; Lake Te Anau. Ascends to 1,100ft.
- COPROSMA ROBUSTA, Raoul.—Rather rare on the E. seaboard, Horse Range; Dunedin; Kaitangata.
- COPROSMA CUNNINGHAMII, Hook. f.—Dunedin. This has probably a wider distribution than I am aware of.
- COPROSMA ROTUNDIFOLIA, A. Cunn. Common in bush. Ascends to 2,000ft.
- COPROSMA RHAMNOIDES, A. Cunn. Common in bush; more rare in open inland valleys.
- COPROSMA CRASSIFOLIA, Cól.—Sparingly spread over the district, both in bush and in open country; most abundant near the sea. Dunedin; Otepopo; Kurow; Dunstan Gorge; &c.
- COPROSMA PARVIFLORA, Hook. f.—Abundant in open scrub, and on the edges of forests. Ascends to 3,000ft.
- COPROSMA PROPINQUA, A. Cunn.—Abundant in valley-bottoms of scrubby country and on the edges of bush. Ascends to 1,200ft. in Lake District.
- COPROSMA FETIDISSIMA, Forst.—Not rare in bush. Dunedin (ascends here to 2,300ft.); Catlin's; Akatore; Seaward Bush; Lake Wakatipu.



- COPROSMA COLENSOI*, Hook. f.—Port Pegasus, at 200ft.; Whisky Gully, near Tapanui (B. C. Aston).
- COPROSMA CUNEATA*, Hook. f.—Not rare on the mountains (from 2,000ft. to 4,500ft.). Mount Cargill; Maungatua; Blue Mountains; Mount Ida; &c.
- COPROSMA ACEROSA*, A. Cunn.—Not rare in open scrub on the E. and S. Ascends to 2,000ft. A much-branched prostrate form is common on sandhills of E. and S., and more rare inland on clay banks.
- COPROSMA LINARIIFOLIA*, Hook. f.—Not rare in bush throughout; most common in the E. and S. Flowers much later than any of the other lowland species.
- COPROSMA REPENS*, Hook. f.—Not rare on the mountains. Rarely descends below 3,000ft. Maungatua; Hector Mountains; Mount Tyndall; Dunstan Mountains; &c.
- COPROSMA VIRESCENS*, Petrie.—Rare and local, but widely spread, chiefly on dry, fertile slopes. Otepopo; Dunedin; Kurow; Bendigo; Kaitangata; Bannockburn. Ascends to 1,500ft.
- COPROSMA RUBRA*, Petrie.—Rather rare on alluvial scrubby flats near E. coast. Dunedin; Catlin's district; &c.
- COPROSMA AREOLATA*, Cheeseman.—Not rare in bush. Dunedin; Otepopo; Hampden; Catlin's; Lake District. Has no great range in altitude.
- COPROSMA PETRIEI*, Cheeseman.—Abundant in the plains and drier valleys of the interior and N.; comes to coast in Waitaki Valley. Pukeuri; Maniototo Plain; Clutha Valley from lakes to Moa Flat; Five-Rivers Plain; &c.
- COPROSMA SERRULATA*, Hook. f.—Not rare on the mountains of C. and W. (from 2,500ft.—5,000ft.). Mount Ida; Mount St. Bathans; Mount Cardrona; Mount Tyndall; Clinton Saddle; &c.
- COPROSMA RIGIDA*, Cheeseman.—Rare in bush near the E. coast. Dunedin; Saddle Hill.
- COPROSMA RETUSA*, Petrie.—Clinton Saddle, Te Anau.
- NERTERA DEPRESSA*, Banks and Sol.—Not rare in moist stations in E. and S.; much less frequent in valleys of interior. Usually below 1,800ft. Dunedin; Naseby; Old Man Range; Catlin's; &c.
- NERTERA DICHONDREIFOLIA*, Hook. f.—Not rare in forests throughout.
- NERTERA SETULOSA*, Hook. f.—Common in open land and scattered scrub throughout. A very robust form grows in the valleys of the W. A distinctly proterogynous species.

- GALIUM TENUICAULE*, A. Cunn.—Rather rare in bush on the E. Waitati; Purakanui; Flagstaff Hill; Catlin's; &c.
- GALIUM UMBROSUM*, Forst.—Rather common in open stations and scattered scrub, throughout. Dunedin; Mount Ida; Speargrass Flat; &c. Ascends to 2,500ft.
- ASPERULA PERPUSILLA*, Hook. f.—Common in moist open stations. Dunedin; Catlin's; Maniototo Plain; &c.
- OLEARIA OPERINA*, Hook. f.—Sounds of W. coast, at and near sea-level.
- OLEARIA ANGUSTIFOLIA*, Hook. f.—The Neck, Stewart Island; Bluff Peninsula.
- OLEARIA COLENSOI*, Hook. f.—Paterson's Inlet; Clinton Saddle, Te Anau.
- OLEARIA NITIDA*, Hook. f.—Not rare in scrub on the E. and S. and along the Clutha Valley. Ascends to 1,200ft.
- OLEARIA MACRODONTA*, Hook. f.—Dunedin.
- OLEARIA ILICIFOLIA*, Hook. f.—Not rare in lowland bush and scrub of E. and S. Frequent in the valleys of the far W.
- OLEARIA MOSCHATA*, Hook. f.—Humboldt Mountains; Mount Tyndall; Clinton Saddle (3,000ft.—4,000ft.).
- OLEARIA CYMBIFOLIA*, Hook. f.—Not rare in valleys of C. and W. Mount Ida; Hector Mountains; Matukituki district; &c. (from 2,300ft. up to 4,000ft.).
- OLEARIA AVICENNIFOLIA*, Hook. f.—Common in bush and scrub in the E. and S.; more rare in valley-bottoms of C. and W. Dunedin; Catlin's; Bluff; Orepuki; Tuapeka Mouth; Roxburgh; Lake Wanaka; &c.
- OLEARIA VIRGATA*, Hook. f.—Not rare on moist declivities of E. and S.; most abundant in valleys and lower mountain slopes of C. and W. Dunedin; Catlin's; Roxburgh; &c.
- OLEARIA FRAGRANTISSIMA*, Petrie.—Rare and local. Dunedin (Vauxhall); Otago Heads; Catlin's.
- OLEARIA ODORATA*, Petrie.—Common on alluvial flats and lower slopes of interior. Sowburn; Manuherikia Valley; throughout Clutha Valley north of Moa Flat; Matukituki Valley; &c.
- OLEARIA HECTORI*, Hook. f.—Local, but usually plentiful where it grows. Kaitangata; Catlin's; Invercargill; Kawarau Gorge; Matukituki Valley (here a small tree, elsewhere a stout shrub).
- CELMISIA HOLOSERICA*, Hook. f.—Mountains west of Te Anau (3,000ft. and upwards).

- CELMISIA DENSIFLORA**, Hook. f.—Rather rare in the N.E.; formerly plentiful. Mihiwaka; Pigroot; Kurow and Mount Ida Ranges; Mount St. Bathans; &c. (800ft. to 3,000ft.). Will soon be all but exterminated through burning and the attacks of stock and rabbits.
- CELMISIA DISCOLOR**, Hook. f.—On the mountains of C. and W. Once abundant, but now getting rare. Mount Ida, Dunstan, and Old Man Ranges, and all high mountains more to W. (3,000ft.—5,500ft.).
- CELMISIA HAASTII**, Hook. f.—Abundant at 4,000ft. to 5,500ft. on the mountains of C. and W. Rock and Pillar Range is the most easterly station known to me.
- CELMISIA LINDSAYI**, Hook. f.—Sea-cliffs at Nugget Point and Catlin's district. I have also seen numerous living plants of this species brought by Mr. Henry Matthews, of Dunedin, from the neighbourhood of Lake Harris. These have a more robust habit than the sea-coast form.
- CELMISIA SINCLAIRII**, Hook. f.—Mountains at head of Matukituki Valley and of Lake Wakatipu (4,000ft.).
- CELMISIA VERBASCIFOLIA**, Hook. f.—Not rare on the lower hills of the eastern district. Oamaru (now extinct here); Horse Range; Flag Swamp; Macrae's (80ft.—2,000ft.). I have not seen this except in the N.E. district of Otago.
- CELMISIA CORIACEA**, Hook. f.—Now rare on the mountains and higher hills of the E., C., and W. Maungatua (2,500ft.); Kakanui Mountains; Rock and Pillar Range; Mount Arnould (Upper Hawea); hills west of Te Anau (800ft.—3,500ft.). This is rapidly disappearing before the attacks of rabbits and stock.
- CELMISIA LYALLII**, Hook. f.—Common on mountains of C. and W. (3,500ft.—5,000ft.). Dunstan Mountains; Carrick Range; Mount Pisa, and all mountains of far W. Now becoming rather rare, thanks to the attentions of the rabbits.
- CELMISIA VISCOSA**, Hook. f.—Still fairly common on the mountains of the C. and W. at 4,000ft. and upwards. Rock and Pillar Range; Old Man Range; Hector Mountains; &c. Usually an abundant plant where it grows. Protected in winter by a mantle of snow.
- CELMISIA PETIOLATA**, Hook. f.—Clinton Valley, Te Anau.
- CELMISIA LONGIFOLIA**, Cass.—Abundant in moist open lands, and highly variable.
- CELMISIA LARICIFOLIA**, Hook. f.—Not rare on mountains of C. and W. at 4,000ft.—5,000ft. Old Man Range; Mount Ida; Mount St. Bathans; and all mountains more to W.

- CELMISIA HECTORI*, Hook. f.—Now rare on mountains of W. Hector Mountains; Humboldt Mountains; Mount Tyndall; &c. I have not observed this east of the main valley of the Clutha.
- CELMISIA SESSILIFLORA*, Hook. f.—Abundant in wet localities on the mountains of the C. and W. (3,000ft.—5,000ft.). A most variable plant.
- CELMISIA SESSILIFLORA*, var. *MINOR*, Petrie. — Maungatua (3,000ft.).
- CELMISIA BELLIDIODES*, Hook. f.—Rather rare and local; on faces over which water flows or soaks. Mount Ida (3,000ft.); mountains near Arrowtown; Mount Tyndall.
- CELMISIA GLANDULOSA*, Hook. f.—Not rare in moist stations on mountains of W. Near Mount Aspiring (4,000ft.); Clinton Valley, Te Anau (1,500ft.).
- CELMISIA WALKERI*, T. Kirk.—Mountains near Mount Aspiring (3,000ft.). This may prove a form of *C. discolor*, which is a very variable species.
- CELMISIA LINEARIS*, Armstrong.—Maungatua (rare) (3,000ft.); Frazer Peaks, Stewart Island.
- CELMISIA PROREPENS*, Petrie.—Upper Waipori; Rock and Pillar Range; Old Man Range. Not seen elsewhere; a local plant, but plentiful where it grows (2,000ft.—4,500ft.).
- CELMISIA RAMULOSA*, Hook. f.—Mountains of W., at 5,000ft. and upwards. Hector Mountains; Mount Pisa; &c. Now a very rare plant except in the S.W.
- CELMISIA BROWNII*, F. R. Chapman. — Hector Mountains (5,000ft.); Clinton Valley, Te Anau (3,000ft.).
- VITTADINIA AUSTRALIS*, A. Rich.—Common, especially in the drier districts of the C. and N.; ascends to 3,000ft. Rapidly spreading in dry districts where the pastures have been eaten very bare.
- LAGENOPHORA FORSTERI*, DC.—Common throughout in open moist stations. A variable plant.
- LAGENOPHORA PETIOLATA*, Hook. f.—Local, but not rare; most common in open scrub. Dunedin; Catlin's; Lake Hawea; &c.
- LAGENOPHORA PINNATIFIDA*, Hook. f.—Rocky hummocks at Macrae's.
- BRACHYCOME SINCLAIRII*, Hook. f.—Common on all high mountains, and ascending to 5,000ft. Much more rare in lowlands of N.E.

- BRACHYCOME PINNATA*, Hook. f.—Not uncommon in the C. and N.E. Kurow; Ngapara; Kyeburn; Naseby; Cambrians; &c.
- BRACHYCOME THOMSONI*, T. Kirk. — Sea-cliffs near Green Island; north coast of Stewart Island. Apparently confined to seaside stations.
- ABROTANELLA INCONSPICUA*, Hook. f.—Common on all high mountains at 4,000ft.—6,000ft.; most easterly station, Rock and Pillar Range.
- ABROTANELLA CÆSPITOSA*, Petrie.—Clarke's Diggings, Mount Ida (3,000ft.). This species is abundant at 5,000ft. at the sources of Broken River, N. Canterbury.
- COTULA CORONOPIFOLIA*, L.—Abundant by lagoons near the sea on the E. and S.
- COTULA AUSTRALIS*, Hook. f.—Neighbourhood of Oamaru. I think this is, in Otago at least, an introduced plant. It has spread greatly about Oamaru in recent years.
- COTULA ATRATA*, Hook. f.—Shingly slopes on Mount Kyeburn and Mount St. Bathan's, at 4,000ft.
- COTULA PECTINATA*, Hook. f.—Common on the mountains, from 3,000ft. to 5,000ft. Descends to the Waitaki River valley at Kurow, and to 1,500ft. at Maniototo Plain.
- COTULA PERPUSILLA*, Hook. f.—Not uncommon in the drier plains of the N.E. and C. Kurow; Duntroon; Maniototo Plain; Cromwell; &c. Ascends to 3,000ft. on Old Man Range.
- COTULA DIOICA*, Hook. f.—Not rare near the coast on the E. and S.; much more rare inland.
- COTULA SQUALIDA*, Hook. f.—Rare in the E.; more common in alluvial valleys of C., W., and S. Ahuriri; St. Bathan's; Lakes Wakatipu and Te Anau; &c.
- COTULA MANIOTOTO*, Petrie. — Rare in the E.; much more common in lagoons and wet spots of C. and S. Kakanui Mouth; Maniototo Plain; Nevis Valley; Mossburn; Te Anau; &c.
- COTULA GOYENI*, Petrie.—Mount Pisa and Hector Mountains (about 6,000ft.).
- COTULA MINUTA*, Forst.—Not rare in wet spots in the Lake District. Luggate; Albertown; Pembroke.
- CRASPEDIA FIMBRIATA*, DC.—Common throughout in open stations.
- CRASPEDIA ALPINA*, Backhouse.—Not rare on all high mountains at 5,000ft. and upwards. Old Man Range; Hector

Mountains; Mount Pisa; Mount Cardrona; &c. Near Naseby, forms intermediate between *C. fimbriata* and *C. alpina* are abundant. They are densely clothed with cottony tomentum, and have yellow heads. I doubt if the species are truly distinct.

*CASSINIA FULVIDA*, Hook. f.—Common throughout on moist clay hills and slopes.

*CASSINIA VAUVILLIERSII*, Hook. f.—As widely spread as the preceding, but less common. Ranges from sea-level to 3,500ft.

*OZOTHAMNUS GLOMERATUS*, Hook. f.—Widely spread, though not common, in lowlands of E. and C. Dunedin; Kurow; Tuapeka district; Lake District.

*OZOTHAMNUS MICROPHYLLUS*, Hook. f.—Widely spread, but local; grows chiefly in crevices of dry rocky faces. Cape Saunders; Kurow; Mount Ida; Alexandra; Kawarau Gorge (near Arrowtown); &c. Ascends to 3,000ft. at Mount Ida.

*OZOTHAMNUS DEPRESSUS*, Hook. f.—On shingly river-flats of Kurow Range. Duntroon; Otiake; Kurow; Upper Kyeburn. I have observed this nowhere else in Otago. (I have found this species also in the bed of the Tukituki, near Waipawa. I mention this as I have not seen it recorded as occurring in the North Island.)

*RAOULIA AUSTRALIS*, Hook. f.—Not uncommon in shingly river-flats and dry terraces of the C. Kyeburn; Maniototo Plain; Dunstan Terraces; Lake District. The typical form occurs also at Sandy Mount and at Catlin's, close to the sea. Ascends to 2,000ft.

*RAOULIA TENUICAULIS*, Hook. f.—Common by sides of shingly creeks and on wet gravelly grounds of E., C., and N. Waitati; Macrae's; Waitahuna; Lake District; &c.

*RAOULIA HAASTII*, Hook. f.—Kyeburn Crossing. I have seen this nowhere else in Otago. It flowers early, and I have never been able to gather good specimens, but I think there can be no doubt as to the accuracy of the identification.

*RAOULIA MONROI*, Hook. f.—Common throughout in dry, light soil, and very variable. Dunedin (on sandhills); Maniototo Plain; St. Bathans; Kurow; Kawarau Gorge; &c. Ascends to 3,000ft., and probably much higher if *R. apicenigra*, T. Kirk, be a form of this species, as it may well be. Forms of what is undoubtedly *R. monroi* are common near Sowburn and at St. Bathans, at 1,500ft. to 2,500ft., which I cannot separate from Mr. Kirk's species.

- RAOULIA SUBULATA**, Hook. f.—Not rare on the mountains of the C. and W. at 4,500ft. and upwards. Old Man Range; Hector Mountains; Mount Pisa; Mount Tyndall; &c.
- RAOULIA EXIMIA**, Hook. f.—Mount Ida Range, 4,000ft. I have seen this nowhere else in Otago. It is the species so well known in Canterbury as the “vegetable sheep.”
- RAOULIA HECTORI**, Hook. f.—Formerly common on all high mountains of C., now rapidly dying off from the drying of the ground through burning and close cropping. Mount St. Bathans; Old Man Range; Hector Mountains; Mount Pisa; Ben Lomond; &c. (4,500ft.—6,000ft.).
- RAOULIA GLABRA**, Hook. f.—Rather rare on dry hills of E. and C. Signal Hill (Dunedin); Waipori; Lake Hawea. Ascends to 2,000ft.
- RAOULIA SUBSERICEA**, Hook. f.—Common on hills and plains of C. and N., and spreading. Macrae’s; Maniototo Plain; St. Bathans; Ida Valley; Cromwell; Lake Wanaka; &c. Ascends to 2,500ft.
- RAOULIA GRANDIFLORA**, Hook. f.—Not rare, on all high mountains at 4,000ft. and upwards. Rock and Pillar Range; Mount Ida; Mount St. Bathans; &c.
- RAOULIA BRYOIDES**, Hook. f.—Mount Pisa and Hector Mountains, at 5,000ft.—6,000ft. Otago specimens differ in several respects from those from Marlborough, but there is no doubt of the identity of the species.
- RAOULIA PETRIENSIS**, T. Kirk.—Mount Ida and Mount St. Bathans (4,000ft.—5,000ft.). This plant has been seen nowhere else than in these two neighbouring habitats.
- RAOULIA APICE-NIGRA**, T. Kirk.—Mount Pisa (4,000ft.). Forms which I refer to *R. monroi*, and which are almost identical with this, are common at much lower elevations near the Kawarau River and at St. Bathans and Sowburn.
- RAOULIA PARKII**, J. Buchanan.—Common in shingly riverbeds and flats of the Lake District. What seem forms of this also ascend the western mountains to 4,000ft. A very glutinous form abounds on the top of the Old Man Range, forming extensive matted patches.
- RAOULIA GOYENI**, T. Kirk.—Mount Rakiatia (Stewart Island). I have had specimens of this from Mr. Goyen, F.L.S., and also from Mr. A. C. Purdie.
- RAOULIA YOUNGII**, Hook. f.—Rather rare at 5,500ft. to 6,600ft. on the mountains of the W. Mount Pisa; Hector Mountains. It seems not to extend east of the main valley of the Clutha.

- RAOULIA MCKAYI*, J. Buchanan.—This plant is not a *Raoulia*, but a small alpine form of *Gnaphalium traversii*, Hook. f. It keeps its character very constantly throughout the South Island, and may be a distinct species. Ranges from 3,000ft. to 4,500ft.
- GNAPHALIUM TRINERVE*, Forst.—Common on the E. and S. coasts.
- GNAPHALIUM TRAVERSII*, Hook. f.—Not rare throughout, and common in moist stations in the C., S., and W. Signal Hill and Swampy Hill (Dunedin); Waipori; Maniototo Plain; Lake District; Waipahi; Lumsden; Te Anau.
- GNAPHALIUM LUTEO-ALBUM*, Linn.—Common in dry open stations; very variable, and spreading rapidly.
- GNAPHALIUM COLLINUM*, Labill.—Abundant on dry hills and terraces of C. and N.E.; more rare in E. and S.
- GNAPHALIUM PALUDOSUM*, Petrie.—Boggy spots in many parts of interior; abundant where it grows. Maniototo Plain; Rock and Pillar slopes; Speargrass Flat; Cromwell; &c. Ascends to 3,500ft.
- HELICHRYSUM BELLIDIODES*, Hook. f.—Common on clay banks throughout.
- HELICHRYSUM FILICAULE*, Hook. f.—Common. Ascends to 4,000ft.
- HELICHRYSUM GRANDICEPS*, Hook. f.—Rather rare on mountains of N. and W. (3,500ft.—5,000ft.). Mount Ida; Mount St. Bathans; Mount Pisa; Mount Cardrona; Mount Arnould; &c.
- HELICHRYSUM PURDIEI*, Petrie.—Very rare on the coast at Otago Harbour. Now almost extinct in this its only known habitat.
- HAASTIA SINCLAIRII*, Hook. f.—Rare on mountains of far W., at 5,000ft. to 6,500ft. Hector Mountains; Mount Bonpland; Mount Arnould.
- ERECHTITES PRENANTHOIDES*, DC.—Common in forest clearings of E. and S. The weed that usually grows up after fires.
- ERECHTITES ARGUTA*, DC.—Common near the coast; more rare inland.
- ERECHTITES QUADRIDENTATA*, DC.—Not uncommon on dry banks and rocky faces.
- ERECHTITES GLABRESCENS*, T. Kirk.—Rather uncommon, but widely spread in open moist bush. Dunedin; Te Anau; Hunter River; &c.



- ERECTHITES DIVERSIFOLIA**, Petrie.—Rather rare, but widely spread in open grassy lands. Outram; Naseby; Mount Iron (Lake Wanaka); Arrowtown.
- SENECIO BELLIDIODES**, Hook. f.—Common on the lower hills of the E. and S. Ascends to 4,500ft. on mountains of C. and W.
- SENECIO HAASTII**, Hook. f.—Not rare on the lower plains and hills of the interior. Maniototo Plain; Manuherikia Plain; Lake District. Ascends to 3,000ft.
- SENECIO LAUTUS**, Forst.—Common on the E. and S. coasts; more rare on plains and lower mountains of the interior. Mount Ida; Mount Pisa; Old Man Range; &c. Ascends to 3,000ft.
- SENECIO LYALLII**, Hook. f.—Not rare in mountain valleys of C. and W. Ascends to 4,500ft., but descends to sea-level at the south of Stewart Island. Hector Mountains; Mount Ida; Mount Pisa; Clinton Valley; &c.
- SENECIO SCIADOPHILUS**, Raoul.—Not rare in bush near E. coast. Goodwood; Otago Heads and Peninsula; Dunedin; Saddle Hill.
- SENECIO ELÆAGNIFOLIUS**, Hook. f.—Rare and local in bush, but of wide range. Mount Cargill; Blue Mountains (2,500ft.); lowlands of Stewart Island.
- SENECIO ROTUNDIFOLIUS**, Hook. f.—North and east coasts of Stewart Island, and south-west coast of Otago. Abundant close to the beach.
- SENECIO CASSINOIDES**, Hook. f.—Rare in mountain valleys of N. and N.W. West slopes of Kurow Mountains; mountains east of Mount Aspiring. Ascends to 4,000ft.
- SENECIO ROBUSTA**, J. Buchanan.—Not rare on the mountains of the far W. at 4,000ft. and upwards. Ben Lomond; Mount Bonpland.
- SENECIO MUELLERI**, T. Kirk.—Islets north-east of Stewart Island. Not known from the main islands.
- MICROSERIS FORSTERI**, Hook. f.—Not rare on open lands. Dunedin; Macrae's; Maniototo Plain; Tapanui; &c.
- GREPIS NOVÆ-ZEALANDIÆ**, Hook. f.—Not rare on clay banks and cuttings in C. and W. Shag Valley; Maniototo Plain; Cromwell; &c.
- TARAXACUM DENS-LEONIS**, Desf.—Rather rare in the E. and S.; much more common in the C. and W.
- SONCHUS OLERACEUS**, L.—Not rare on cliffs by the seaside. The introduced form abounds in ill-cultivated lands.

- OREOSTYLIDIUM SUBULATUM**, Berggren.—Rather rare in wet peaty stations in the E. and S. Swampy Hill (Dunedin); Maungatua; Inch-Clutha; Catlin's; Blue Mountains; Bluff Hill. Ranges from sea-level to 3,000ft.
- FORSTERA SEDIFOLIA**, L. f.—Common on the mountains of the far W. Longwood Range; Clinton Saddle (3,000ft.); Frazer Peaks (Stewart Island).
- FORSTERA BIDWILLII**, Hook. f.—Not rare in mountain swamps in the E. and S. Swampy Hill (Dunedin); Maungatua; Catlin's; Blue Mountains. Ranges from 20ft. to 3,000ft. I have not observed this on the mountains of the N., C., or W. The plant here referred to may be *F. tenella*, Hook. f. Mr. Brown, A.L.S., of Kew, considers that both belong to one species, a view in which I am disposed to concur.
- DONATIA NOVÆ-ZEALANDIÆ**, Hook. f.—Not rare in mountain swamps of the E. and S. Maungatua; Blue Mountains; low flats west of Paterson's Inlet. Ranges from 20ft.—3,000ft.
- PHYLLACHNE CLAVIGERUM**, Hook. f.—Not rare on the mountains of the W. Hector Mountains; Mount Pisa; Mount Cardrona; &c. (4,000ft.—6,000ft.).
- PHYLLACHNE COLENSOI**, Hook. f.—Common in the higher mountains at 4,000ft.—5,500ft. Rock and Pillar Range; Mount Ida; Hector Mountains; Mount Pisa; &c.
- PHYLLACHNE HAASTII**, Berggren.—Maungatua (3,000ft.).
- WAHLENBERGIA GRACILIS**, DC.—Common in dry open stations up to 3,000ft.
- WAHLENBERGIA SAXICOLA**, DC.—Common throughout at 1,000ft.—3,500ft.
- LOBELIA ROUGHII**, Hook. f.—Broken-shingle-slopes of Mount Ida and Mount St. Bathans (3,500ft.—5,000ft.).
- LOBELIA LINNÆOIDES**, Petrie.—Not uncommon on mountains of C. and W. Mount Ida; Hector Mountains; &c. (3,000ft.—4,500ft.).
- PRATIA ANGULATA**, Hook. f.—Not uncommon on wet open lands, and very variable. Var. **DELTA**: Old Man Range (3,000ft.—4,000ft.). Var. **GAMMA**: Sandhills at Catlin's.
- PRATIA MACRODON**, Hook. f.—Rare and local on the mountains of the W. Mount Cardrona and Hector Mountains (4,000ft.).
- SELLIERA RADICANS**, Cav.—Common by seaside in E. and S.; rare inland and much reduced in size, as at Lakes Wanaka and Te Anau. Ascends to 1,000ft.

- GAULTHERIA ANTIPODA**, Forst.—Most abundant on heathy hills and lowlands throughout.
- GAULTHERIA RUPESTRIS**, Br.—Common in mountain valleys, on banks of streams. Kurow Mountains; Mount Ida; Hector Mountains; &c.
- PERNETTYA TASMANICA**, Hook. f.—Hector Mountains (4,000ft.). Mount Bonpland.
- CYATHODES ACEROSA**, Br.—Not rare near the E. and S. coasts. Dunedin; Bluff Hill; &c.
- CYATHODES EMPETRIFOLIA**, Hook. f.—Common on swampy ground on hills and lowlands of E. and S. Swampy Hill, Dunedin; Maungatua; Inch-Clutha; Blue Mountains; &c. Ranges from sea-level to 3,000ft.
- CYATHODES COLENSOI**, Hook. f.—Neighbourhood of Naseby; Waipori. A local plant, almost confined to the N.E. highlands, at 2,000ft.—3,000ft.
- LEUCOPOGON FRAZERI**, A. Cunn.—Abundant throughout in open heathy lands up to 3,000ft.
- PENTACHONDRA PUMILA**, Br.—Abundant on the mountains of the C. and W., and on the hills of the E. Descends almost to sea-level at Inch-Clutha and Catlin's, and ascends to 5,000ft. on the mountains of C. and W.
- ARCHERIA TRAVERSII**, Hook. f.—Occurs sparingly in the valleys of the far W. Clinton Valley; valleys of Reece and Hollyford.
- DRACOPHYLLUM MENZIESII**, Hook. f.—On upper edge of bush on mountains west of Lakes Wakatipu and Te Anau (3,000ft.—3,500ft.).
- DRACOPHYLLUM STRICTUM**, Hook. f.—Clinton Saddle, Lake Te Anau (3,000ft.).
- DRACOPHYLLUM LONGIFOLIUM**, Br.—Common in the E. and S., especially near the sea. Ascends to 3,000ft. on Maungatua.
- DRACOPHYLLUM URVILLEANUM**, A. Rich.—Not rare in the Lake District and in the lower valleys of the C. Lakes Wakatipu, Hawea, and Te Anau; Mount Ida; Tapanui. I have not always been able to distinguish this clearly from the preceding species.
- DRACOPHYLLUM UNIFLORUM**, Hook. f.—Not uncommon in mountain valleys of C. and W. at 2,500ft.—4,000ft. Mount Ida; Hector Mountains; &c.
- DRACOPHYLLUM ROSMARINIFOLIUM**, Forst.—Formerly common on the mountains of the C. and W. at 3,500ft.—5,000ft.

Mount Ida; Mount St. Bathan's; Mount Pisa; Hector Mountains; &c. Like the preceding, this is now becoming rare, owing to fires and desiccation consequent on close cropping of the grasses and other edible plants by sheep and rabbits.

*DRACOPHYLLUM MUSCOIDES*, Hook. f.—Common on the bare mountain-tops of the C. and W. (4,000ft.—6,000ft.). Old Man Range; Hector Mountains; Mount Pisa; &c.

*DRACOPHYLLUM PROSTRATUM*, T. Kirk.—Maungatua and Blue Mountains (3,000ft.), and Clinton Valley (1,000ft.).

*MYRSINE URVILLEI*, A. DC.—Common in forests of E. and S.; more rare in W.

*MYRSINE DIVARICATA*, A. Cunn.—Not rare on well-drained lowland slopes and flats of E. and S. Dunedin; Catlin's; Invercargill; Lake Te Anau. Ascends to 1,800ft. on Mount Cargill.

*MYRSINE NUMMULARIA*, Hook. f.—Mountain valleys of E. central district; rare. Mount Ida and Mount St. Bathan's (3,000ft.—4,000ft.).

*MYRSINE CHATHAMICA*, F. von M.—Southern corner of Stewart Island. I have specimens from this locality gathered by Mr. G. M. Thomson, F.L.S.

*SAMOLUS LITTORALIS*, Br.—Common on tidal flats on the E. and S.

*PARSONSIA ALBIFLORA*, Raoul.—Common in forests of the E. and S.

*PARSONSIA ROSEA*, Raoul.—Not rare in the Upper Clutha Valley: Clyde; Cromwell; &c. Much more rare towards the E.: Dunedin.

*LOGANIA TETRAGONA*, Hook. f.—Not rare on bare mountain-tops of C. and W. Old Man Range; Mount Pisa; Ben Lomond; Mount Bonpland (4,500ft.—6,000ft.).

*GENTIANA MONTANA*, Forst.—Not uncommon in open moist lands throughout, except the N.E. Ranges from near sea-level at Catlin's and Invercargill to 3,000ft. on the Blue Mountains.

*GENTIANA PLEUROGYNOIDES*, Griesb.—Abundant on the mountains from 3,500ft.—5,500ft., but descending to 1,100ft. at Hawea Flat.

*GENTIANA SAXOSA*, Forst.—Rather local, but not rare in the E. and S. Catlin's (100ft.); Bluff; Macrae's (1,800ft.); Maungatua; and Maniototo Plain.

*LIPAROPHYLLUM GUNNII*, Hook. f.—Muddy flats at Paterson's Inlet, Stewart Island.

**MYOSOTIS PULVINARIS**, Hook. f.—Lofty mountains of W. and N.W. Mount Pisa; Old Man Range; Hector Mountains; Mount Cardrona; &c. (4,500ft.—6,000ft.). I cannot distinguish *M. hectori*, Hook. f., from this, and agree with Mr. N. E. Brown that it is not distinct from the present species.

**MYOSOTIS SPATHULATA**, Forst.—In bush on Inch-Clutha. I have observed this nowhere else in Otago.

**MYOSOTIS ANTARCTICA**, Hook. f.—Not rare on the uplands and mountains of the N. and C.; more uncommon in the S. Kurow Flats; Mount Ida; Mount Cardrona; Crown Range. Ascends to 4,000ft.

**MYOSOTIS AUSTRALIS**, Br.—Not rare on dry hill-sides of C. and N. Mount Ida; Mount St. Bathans; Speargrass Hill; &c.

**MYOSOTIS FORSTERI**, Roem. and Sch.—Not rare in the western valleys. Clinton Valley; head of Lake Wakatipu; Upper Hawea; &c.

**MYOSOTIS CAPITATA**, Hook. f.—Rare on spray-washed cliffs of E. and S. coasts. Dunedin; Catlin's; Paterson's Inlet. The blue-flowered form occurs near Dunedin; elsewhere the flowers are pale, nearly white.

**MYOSOTIS TRAVERSII**, Hook. f.—Rare on the mountains of the N.W. Mount Arnould, Hawea (6,000ft.).

**MYOSOTIS CHEESEMANII**, Petrie.—Mount Pisa and Hector Mountains (6,000ft.).

**MYOSOTIS ALBO-SERICEA**, Hook. f.—Dry rocky stations near Cromwell; now nearly extinct in this its only known habitat.

**MYOSOTIS GOYENI**, Petrie.—Rocky slopes at Arrowtown and Lake Hawea; shingly terraces of Cardrona Valley.

**EXARRHENA MACRANTHA** (?), Hook. f.—Rather rare on steep rocky faces on the mountains of the N.W. Mount Aspiring; Mount Cardrona; Mount Bonpland (5,500ft.—6,000ft.). I think it not unlikely that this plant is distinct from the true *E. macrantha*, though at Kew they are regarded as of the same species.

**TETRACHONDRA HAMILTONII**, Petrie.—Rather rare on moist lowlands of E. and S. Plateau between Lee Stream and Strath Taieri; Hindon School-grounds; Waipahi; Invercargill. Ascends to 1,800ft.

**CONVOLVULUS TUGURIORUM**, Forst.—Common in bush and scrub.

- CONVOLVULUS SOLDANELLA, L.—Common in sandy stations on the E. and S. coasts.
- CONVOLVULUS ERUBESCENS, Br.—Not rare in dry stations in C. and N.E. Roxburgh; Clyde; Cromwell; Hamilton's; Kurow; &c.
- DICHONDRA REPENS, Forst.—Not rare in E. and C. Dunedin; Oamaru; Cromwell; &c.
- DICHONDRA BREVIFOLIA, J. Buchanan.—Not rare in the N.E. and E. central districts. Duntroon; Horse Range; Strath Taieri; Maniototo Plain; &c.
- CUSCUTA, sp.—Green Island; head of Lake Hawea. I have not been able to determine the species, which may be introduced.
- SOLANUM AVICULARE, Forst.—Not rare in dry fertile stations near E. coast. Otepopo; Dunedin; Kaitangata.
- SOLANUM NIGRUM, L.—Rather rare in the valleys of C. Kawarau Gorge; Pembroke. This may quite well be introduced at these stations.
- MIMULUS REPENS, Br.—Common in saline marshes and lagoons on E. and S. coasts. Waikouaiti; Dunedin; Taieri Mouth; &c.
- MIMULUS RADICANS, Hook. f.—Not rare in moist lowlands of E., S., and C. Blueskin; Maungatua; Waipahi; Kelso; Naseby; Speargrass Flat; Lumsden; Lake Te Anau; &c.
- GRATIOLA NANA, Benth.—Local, but not rare in shallow lagoons and wet spots on the plateau of the E. Lee Stream; Barewood; Strath Taieri; Macrae's.
- GRATIOLA PERUVIANA, R. Br.—Lake Te Anau.
- GLOSSOSTIGMA ELATINOIDES, Benth.—Rare in Otago; more common in Southland. Strath Taieri; Maniototo Plain; Lumsden; Te Anau; &c.
- GLOSSOSTIGMA SUBMERSA, Petrie.—Tidal shores of Lake Waihola. This flowers in February. I have gathered it only once, though I have kept a look-out for it for several years.
- LIMOSELLA AQUATICA, L., var. TENUIFOLIA.—Common in moist situations, especially in the interior.
- LIMOSELLA CURDEYANA, F. von M.—Manuherikia Valley, near Black Horse Hotel. I owe the identification of this plant to Mr. T. Kirk, F.L.S. It is most likely introduced there. I have met with it nowhere else.
- VERONICA SALICIFOLIA, Forst.—Abundant. Dunedin; Tokomairiro; Lawrence; Lake District; Catlin's; &c.

- VERONICA TRAVERSII, Hook. f.—Not uncommon on hills of S., C., and W. Waipori; Blue Mountains; Lake Te Anau; Lake Wanaka; &c.
- VERONICA ELLIPTICA, Forst.—Abundant on E. and S. coasts.
- VERONICA LÆVIS, Benth.—Valleys and hill-slopes of far W.; Lakes Wakatipu and Te Anau. I do not feel quite certain of the identification of this species.
- VERONICA BUXIFOLIA, Benth.—Common on the lower hills and mountain valleys of E., C., and S. Swampy Hill, Dunedin; Maungatua; Waipori; Blue Mountains; Eweburn Creek; Mount Ida; &c. Ascends to 3,000ft.
- VERONICA PINGUIFOLIA, Hook. f.—Common on dry high mountain-slopes of C. and W. Mount Ida (4,000ft.); Mount St. Bathans; Mount Arnould; &c.
- VERONICA PIMELEOIDES, Hook. f.—Common on rocky faces in upper valleys of Taieri and Clutha. Speargrass Flat; Clyde; Cromwell; Queenstown; Mount Ida; &c. Ascends to 3,000ft.
- VERONICA LYCOPODIOIDES, Hook. f.—Humboldt Mountains.
- VERONICA HECTORI, Hook. f.—Hector Mountains (4,000ft.).
- VERONICA SALICORNIOIDES, Hook. f.—Mount Ida; Waipori; Maungatua (2,000ft.—3,000ft.).
- VERONICA CUPRESSOIDES, Hook. f.—Lammerlaw (3,000ft.). I have not seen this plant wild, but plants taken from above station are growing at Lawrence.
- VERONICA EPACRIDEA, Hook. f.—Mount Arnould (5,000ft.).
- VERONICA MACRANTHA, Hook. f.—Clinton Saddle, Te Anau (3,000ft.).
- VERONICA LINIFOLIA, Hook. f.—Arrowtown (3,000ft.).
- VERONICA LYALLII, Hook. f.—Not rare in the lower mountain valleys of C., S., and W. Mount Ida; Queenstown; Te Anau; Mataura Village (the lowest station known to me).
- VERONICA BIDWILLII, Hook. f.—Not rare in mountain valleys of C. and N.W. Mount Ida; head of Lake Hawea; &c. (2,300ft.—3,000ft.).
- VERONICA CATARACTÆ, Forst. Common in valleys of far W. Clinton Valley; Milford Sound; &c.
- VERONICA CANESCENS, Kirk.—Common in dry plains of C. Moa Flat; Maniototo Plain; Hawea Flat; Five-Rivers Plain; &c.
- VERONICA PETRIEI, T. Kirk (= *Mitrasacme petriei*, J. Buchanan).—Mount Bonpland (4,500ft.).

- PYGMÆA PULVINARIS**, Hook. f.—Not rare on tops of lofty mountains of N. and W. (4,500ft.—6,000ft.). Kurow Mountains; Mount St. Bathan's; Mount Pisa.
- OURISIA MACROPHYLLA**, Hook.—Flagstaff Hill, Dunedin; Paterson's Inlet, Stewart Island.
- OURISIA MACROCARPA**, Hook. f.—Clinton Saddle, Lake Te Anau (3,000ft.).
- OURISIA COLENSOI**, Hook. f.—Clinton Valley, in bush (1,800ft.). This species has been identified for me at Kew. Mr. N. H. Brown, in his report, remarks that two species are mixed up in the description in Sir J. D. Hooker's Handbook.
- OURISIA SESSILIFLORA**, Hook. f.—Not uncommon on lofty mountains of far W. Mount Bonpland (4,500ft.); Hector Mountains (5,000ft.); Clinton Saddle, Te Anau, at 3,500ft.
- OURISIA CÆSPITOSA**, Hook. f.—Common in mountain valleys of N. and W. (3,000ft.—5,000ft.). Mount Ida; Dunstan Mountains; Old Man Range; Hector Mountains; Mount Cardrona; &c.
- OURISIA PROREPENS**, Petrie.—Mount Bonpland (4,500ft.).
- EUPHRASIA REVOLUTA**, Hook. f.—Not rare on lofty mountains of W. and N.W., at 5,000ft. and upwards. Hector Mountains; Mount Tyndall; Mount Arnould.
- EUPHRASIA ANTARCTICA**, Benth.—Common in N., C., and W. (300ft.—4,500ft.). Kurow; Mount St. Bathan's; Crown Range; Mount Cardrona (4,500ft.); &c.
- EUPHRASIA REPENS**, Hook. f.—In mountain-bogs; probably not rare. Mount Kyeburn (3,500ft.); Maungatua; Blue Mountains.
- UTRICULARIA COLENSOI**, Hook. f.—Boggy stations at Te Anau, and head of Paterson's Inlet.
- MYOPORUM LÆTUM**, Forst.—Common near the sea in the E. and S.
- MENTHA CUNNINGHAMII**, Benth.—Common in open lands. West Taieri; Strath Taieri; Maniototo; Roxburgh; &c.
- PLANTAGO UNIFLORA**, Hook. f.—Rare near E. and S. coasts. Tomahawk Lagoon, Dunedin; Paterson's Inlet; Te Anau. What may be a mountain form of this occurs in abundance on Mount Kyeburn, Mount Ida, and Dunstan Mountains, at 3,000ft.—4,000ft.
- PLANTAGO BROWNII**, Rapin.—Rather rare on wet mountain stations of E., C., and N. at 3,000ft.—4,000ft. Mount Ida; Blue Mountains; Maungatua; Hector Mountains.



*PLANTAGO LANIGERA*, Hook. f.—Not uncommon, but local on mountains of C. and N.W. Old Man Range; Hector Mountains; Mount Pisa; &c. (4,000ft.—5,500ft.).

*PLANTAGO SPATHULATA*, Hook. f.—Not rare on moist uplands of C. and N.W. Naseby; Mount St. Bathans; mountains of Lake District. Ascends to 3,000ft.

*PLANTAGO RAOUHII*, Decaisne.—Common in moist lowlands.

*CHENOPODIUM TRIANDRUM*, Forst.—Common on E. and S. coasts; rare inland. Cromwell; Ophir; &c.

*CHENOPODIUM URBICUM*, L.—Common by waysides, &c.

*CHENOPODIUM GLAUCUM*, L., var. *AMBIGUUM*.—Common at seaside, and in saltish stations inland. Dunedin; Oamaru; Roxburgh; Cromwell; Maniototo Plains; &c.

*CHENOPODIUM CARINATUM* (?), Br.—Kawarau River. My specimens have two stamens, a condition not rare in Australian forms of the species. Probably introduced.

*CHENOPODIUM DETESTANS*, T. Kirk.—Common in dry lowlands of C. and N. Maniototo Plain; Cromwell; Lake Hawea; &c.

*SUAEDA MARITIMA*, Dumortier.—Common by salt lagoons of E. and S. coasts.

*ATRIPLEX PATULA*, L.—Common by waysides, &c.

*ATRIPLEX BILLARDIERI*, Hook. f.—Sandy shores of Paterson's Inlet.

*ATRIPLEX BUCHANANI*, T. Kirk.—Common in saltish stations of C. and W.; rare near E. coast. Green Island Beach; Maniototo Plain; Ida Valley; Alexandra; Cromwell; &c.

*SALSOLA AUSTRALIS*, Br. (?).—Otiake River; Lowburn; Bannockburn. Spreading rather rapidly, and most likely introduced.

*SALICORNIA INDICA*, Willd. (?).—Abundant on low flats near the sea on the E. and S.

*SCLERANTHUS BIFLORUS*, Hook. f.—Abundant up to 4,000ft.

*POLYGONUM AVICULARE*, L.—Abundant by waysides and on edges of fields. Most likely introduced.

*MUHLENBECKIA ADPRESSA*, Labill.—Abundant in valleys of C. and N.E. Lake District; Kurow; Sowburn; &c.

*MUHLENBECKIA COMPLEXA*, Meisner.—Abundant in bush and scrub.

*MUHLENBECKIA AXILLARIS*, Hook. f.—Lower Waitaki Valley; Maniototo Plain; throughout the Clutha Valley; Lake District; &c.

- MUHLENBECKIA EPHEUROIDES**, Hook. f.—Rather rare and local. Kurow; Awamoko; Roxburgh.
- RUMEX FLEXUOSUS**, Forst.—Abundant in N. and C.; more rare elsewhere.
- RUMEX NEGLECTUS**, T. Kirk.—Port Molyneux; Catlin's; Bluff; Paterson's Inlet.
- PIMELEA TRAVERSII**, Hook. f.—Rather rare on mountains of C. and N. Mount St. Bathans; Mount Ida (2,000ft.—3,000ft.).
- PIMELEA ARENARIA**, A. Cunn.—Not rare on sandhills of E. and S. coasts.
- PIMELEA PROSTRATA**, Vahl.—Common in open lands.
- PIMELEA LYALLII**, Hook. f.—Common in the Lower Waitaki and Upper Clutha Valleys; Kurow; Manuherikia Valley; Lake District; &c. I have not seen this in the Taieri basin.
- PIMELEA SERICEO-VILLOSA**, Hook. f.—Abundant in Clutha Valley north of Cromwell to Lake Hawea. I have not seen this outside this very limited district.
- KELLERIA DIEFFENBACHII**, Hook.—Not uncommon throughout. Signal Hill; Lawrence; Tapanui; Bluff; Catlin's; &c.
- KELLERIA LYALLII**, Hook. f.—Not rare on lofty mountains of C. and N.W., at 5,000ft.—6,000ft. Dunstan Mountains; Old Man Range; Hector Mountains; Mount Pisa; Mount Cardrona; &c.
- KELLERIA VILLOSA**, Berggren.—Mount Ida (4,000ft.).
- EXOCARPUS BIDWILLII**, Hook. f.—Head valleys of Eweburn Creek, near Naseby. I have observed this plant nowhere else in Otago.
- EUPHORBIA GLAUCA**, Forst.—Common on sandhills of E. and S. coasts.
- PARATROPHIS MICROPHYLLUS**, Hook. f.—Not uncommon in bush in E. and S. Dunedin; Hampden; Catlin's; West Taieri; &c.
- FAGUS MENZIESII**, Hook. f.—Not rare on hills of E. and S. Mount Cargill; West Taieri; Catlin's; Tapanui; &c.
- FAGUS FUSCA**, Hook. f.—Common in the higher valleys of the far W. Lakes Hawea, Wanaka, and Wakatipu.
- FAGUS CLIFFORTIODES**, Hook. f.—Common in the higher valleys of the far W. Lakes Hawea, Wanaka, Wakatipu, and Te Anau.
- FAGUS SOLANDRI**, Hook. f.—Common in lower valleys and hill slopes W. of the Lake District.

- URTICA INCISA*, Poiret.—Not rare throughout; chiefly in bush and scrub.
- URTICA FEROX*, Forst.—Rather rare in bush on the E. Oamaru; Otepopo; Saddle Hill; Otago Peninsula; &c. I have not observed this plant far inland.
- PARIETARIA DEBILIS*, Forst.—Rather rare, chiefly in bush and scrub, in the E. and N. Kurow; Oamaru; Otago Peninsula; Lake Wanaka.
- AUSTRALINA PUSILLA*, Gaud.—Not rare in bush in the E. and S. Dunedin; Catlin's; Chasland's Mistake; &c.
- LIBOCEDRUS BIDWILLII*, Hook. f.—Mount Cargill (800ft.—2,000ft.).
- PODOCARPUS FERRUGINEA*, Don.—Not rare in forests of E. and S.
- PODOCARPUS NIVALIS*, Hook. f.—Mountains of W. and N.W. Mount Arnould (3,500ft.); Clinton Saddle.
- PODOCARPUS TOTARA*, A. Cunn.—Common in lowland forests of E. and S.
- PODOCARPUS HALLII*, T. Kirk.—Mount Cargill.
- PODOCARPUS SPICATA*, Br.—Not rare in lowland forests of E. and S. Dunedin; West Taieri; Catlin's. Now largely cleared off by cutting for timber.
- PODOCARPUS DACRYDIODES*, A. Rich.—Not rare in wet lowland and hilly forests of E. and S. Dunedin; Kaitangata; Catlin's; Southland; &c.
- DACRYDIUM CUPRESSINUM*, Sol.—Common in forests of E. and S.
- DACRYDIUM COLENSOI*, Hook. f.—Mount Cargill (2,000ft.).
- DACRYDIUM LAXIFOLIUM*, Hook. f.—Rather rare in bleak swampy stations of S. and W. Stewart Island; Clinton Valley (900ft.); Blue Mountains (3,000ft.).
- DACRYDIUM BIDWILLII*, Kirk.—Rare in bleak mountain swamps. Maungatua (3,000ft.); Waipori; The Desert, Lake Te Anau (800ft.).
- PHYLLOCLADUS ALPINUS*, Hook. f.—Not rare on the lower mountains of E., C., and W. Mount Cargill; Mount Ida (3,000ft.); forests of Lake District from Hawea to Te Anau.
- EARINA MUCRONATA*, Lindley.—Common on tree-stems in forests of E., S., and W. Dunedin; Catlin's; Bluff; Te Anau; &c.
- EARINA AUTUMNALIS*, Hook. f.—Rather rare near the E. coast. Dunedin; Nugget Point.

*DENDROBIUM CUNNINGHAMII*, Lindley.—Rather rare on trees and rocks in forests of E. and S. Port Chalmers; Leith Valley; Catlin's.

*SARCOCHILUS ADVERSUS*, Hook. f.—Very rare on rocks and trees in bush in vicinity of Dunedin. Sawyer's Bay; Pine Hill (on *Griselinia littoralis*, Raoul).

*GASTRODIA CUNNINGHAMII*, Hook. f.—Not rare in forests of E., S., and W. Dunedin; Pine Hill; Maungatua; Lake Te Anau; Lake Wakatipu; Bluff; Stewart Island. This seems much more plentiful in the mossy forests of the W. Elsewhere it is more easily overlooked.

*GASTRODIA MINOR*, Petrie.—Scrub at Opoho Creek, near Dunedin. Not at all easy to detect, and not very plentiful.

*ADENOCHILUS GRACILIS*, Hook. f.—Moss-carpeted forests of far W. Lakes Wakatipu and Te Anau. The long, stout rootstocks usually lie in moss, and have no connection with the soil. The way in which they absorb food is well worth investigating.

*CORYSANTHES TRILOBA*, Hook. f.—Sparingly found in the forests of the E. and S. Dunedin; Bluff Hill.

*CORYSANTHES OBLONGA*, Hook. Forests of Catlin's district. Apparently a very rare plant in Otago.

*CORYSANTHES ROTUNDIFOLIA*, Hook. f.—Not rare in the forests of the E. and S. North-east Valley; Waitati Creek; Catlin's; Heriot (in boggy ground); Bluff.

*CORYSANTHES RIVULARIS*, Hook. f.—Bare in deep shady valleys in bush. Head valleys of Water of Leith; Bluff.

*CORYSANTHES MACRANTHA*, Hook. f.—Not uncommon in moist stations in bush and scrub. Dunedin; Kaitangata; Bluff; Lawrence; Pembroke; &c.

*MICROTIS PORRIFOLIA*, Sprengel.—Common in dry, open stations, and very variable in size and robustness.

*CALADENIA MINOR*, Hook. f.—Not uncommon in scrub and heath in the E. and S. Dunedin; Manuka Creek; Catlin's; Bluff; &c.

*CALADENIA LYALLII*, Hook. f.—Swampy Hill, Dunedin; Maungatua; Blue Mountains. Ascends to 3,000ft.

*CHILOGLOTTIS CORNUTA*, Hook. f.—Bluff; Maungatua. Ascends to 3,000ft.

*CHILOGLOTTIS BIFOLIA*, Hook. f.—Not uncommon in moist heathy stations of E. and S. Swampy Hill; Maungatua; Catlin's; Invercargill; Bluff. Ranges from 3,000ft. to near sea-level.

- PTEROSTYLIS BANKSII**, Br.—Not rare in bush near the E. and S. coasts. Dunedin; Port Molyneux; Catlin's; Bluff.
- PTEROSTYLIS GRAMINEA**, Hook. f.—Not rare in moist open stations in C., E., and S. Dunedin; Kaitangata; Owaka Valley; Naseby.
- PTEROSTYLIS FOLIATA**, Hook. f.—Rather rare on the uplands of the E. Dunedin (Signal Hill); Milburn; Tuapeka West.
- PTEROSTYLIS MUTICA**, Br.—Not uncommon on dry uplands of C. and E. Horse Range; Lee Flat; Naseby; Cambrian; St. Bathans.
- LYPERANTHUS ANTARCTICUS**, Hook. f.—Swampy Hill; Maungatua (2,500ft.), in peaty stations. A rare and local plant.
- THELYMITRA LONGIFOLIA**, Forst.—Common in moist stations, especially in the E. and S. Dunedin; Port Molyneux; Milton; Lawrence; Maniototo Plain; &c.
- THELYMITRA PULCHELLA**, Hook. f.—Not rare in the S.; much more uncommon in the E. Dunedin (Signal Hill); Invercargill; Bluff.
- THELYMITRA UNIFLORA**, Hook. f.—Not rare in wet lowlands of E. and S. Swampy Hill; Maungatua; Port Molyneux; Catlin's; Invercargill.
- PRASOPHYLLUM NUDUM**, Hook. f.—Common in open lands. Dunedin; Naseby; Kaitangata; Catlin's; Naseby; &c.
- LIBERTIA IXIOIDES**, Sprengel.—Not rare on the edge of bush and in scrub in the E.: Dunedin; Horse Range; Wangaloa; &c. Smaller forms are sparingly found in the interior: Macrae's; Maniototo Plain; &c.
- LIBERTIA MICRANTHA**, Hook. f.—Southern corner of Stewart Island, and forests west of Lake Te Anau.
- HYPOXIS PUSILLA**, Hook. f.—Otepopo. I have not seen this elsewhere. As it flowers very early, and is very inconspicuous, it is easy to overlook.
- TYPHA ANGUSTIFOLIA**, L.—Common in ponds and sluggish streams. Lake Waihola; Taieri Plain; Cromwell; Lake Hayes; Lake Hawea; Waiareka Valley; &c.
- RUPPIA MARITIMA**, L.—Common in salt lagoons and tidal streams on the E. Waikouaiti; Tomahawk; Taieri Plain; Lake Waihola; &c. It grows abundantly in the Waipahi River in perfectly fresh water.
- ZANNICHELLIA PALUSTRIS**, L.—Waikouaiti Lagoon.
- LEPILÆNA BILOCULARIS**, T. Kirk (m.s.).—Waikouaiti; Lake Waihola; Taieri Plain.

- ZOSTERA NANA*, Roth.—Common on submerged and tidal mudbanks in E. and S. Dunedin; Bluff; Stewart Island.
- RHIPOGONUM SCANDENS*, Forst.—Common in the forests of the E. and S. Dunedin; Catlin's; Bluff; &c.
- CALLIXENE PARVIFLORA*, Hook. f.—Common in bush in the S. and W. Catlin's; Seaward Bush; Te Anau; Stewart Island.
- CORDYLINE AUSTRALIS*, Hook. f.—Common in most parts, and ascending to 3,000ft. in the interior.
- DIANELLA INTERMEDIA*, Endl.—Not rare in scrub near the E. coast. Dunedin; Akatore; &c.
- ASTELIA NERVOSA*, Banks and Sol.—Not rare on the lower uplands of the E. and S. Hills round Dunedin; Circle Hill; Tuapeka district; Blue Mountains; Waipahi; &c.
- ASTELIA LINEARIS*, Hook. f.—Not rare on the mountains of the C. and W. at 4,000ft. and upwards, but descending almost to sea-level in the south of Stewart Island. Hector Mountains; Mount Bonpland; Clinton Saddle (3,000ft.); Pegasus Inlet (20ft.).
- ASTELIA GRANDIS*, Hook. f.—Common in the forests of the E., S., and W. Dunedin; Port Molyneux; Catlin's; Invercargill; Bluff; Te Anau; &c.
- ARTHROPODIUM CANDIDUM*, Raoul.—Not uncommon in dry bushy and open stations throughout. Dunedin (Opoho Valley); West Taieri; Black's; Macrae's; Tapanui; Cromwell.
- ANTHERICUM HOOKERI*, Col.—Common on moist hill and mountain slopes throughout. Dunedin; Macrae's; Naseby; Clyde; Bannockburn; Blue Mountains; Waipahi; &c.
- PHORMIUM TENAX*, Forst.—Common in lowland swamps and on banks of rivers and streams, especially in the E. and S.
- PHORMIUM COLENSOI*, Hook. f.—Not rare in the C. and S. on hills of 1,000ft. and upwards. Lake Hawea; Waipori Road (from Lawrence); Waitepeka; Upper Owaka (3,000ft.); &c.
- HERPOLIRION NOVÆ-ZEALANDIÆ*, Hook. f.—Not rare in lowlands and lower uplands of E. and S. Ranges from sea-level to 3,000ft. Maungatua; Waipori; Clinton; Catlin's; Invercargill; Bluff; &c.
- JUNCUS VAGINATUS*, Br.—Rather rare and local. Sawyer's Bay; Strath Taieri; Alexandra South; Lumsden; Paterson's Inlet.

- JUNCUS AUSTRALIS**, Hook. f.—Common in swamps of E., C., and S. Macrae's; Waipori; Tuapeka West; Tapanui; Waipahi; Catlin's; &c.
- JUNCUS COMMUNIS**, E. Meyer.—Abundant in wet open stations throughout.
- JUNCUS PLANIFOLIUS**, Br.—Not rare in the E. and S. Dunedin; Inch-Clutha; Catlin's; &c.
- JUNCUS BUFONIUS**, L.—Abundant in wet stations.
- JUNCUS NOVÆ-ZEALANDIÆ**, Hook. f.—Abundant in wet stations. Ascends to 2,000ft.
- JUNCUS LAMPROCARPUS**, Ehr.—Abundant in wet stations in E. and S.; less common in interior. Sawyer's Bay; Green Island; Tuapeka district; Cromwell; Catlin's; Invercargill.
- JUNCUS BREVIFOLIUS**, T. Kirk.—Not rare in lowland and upland wet stations of C. and S. Ranges from 3,500ft. to sea-level. Clarke's Diggings; Naseby; Lake Wanaka; Lake Te Anau; Port Molyneux; Catlin's.
- JUNCUS TENUIS**, Willd.—Dunedin. Most likely introduced.
- JUNCUS PAUCIFLORUS**, Br.—Waitati; Tokomairiro district. May quite well be an introduction here.
- JUNCUS ARTICULATUS**, Ehrhart.—Lake Waihola. Most likely introduced.
- ROSTKOVIA GRACILIS**, Hook. f.—Common, at 5,000ft.—7,000ft. on the mountains of the W. Hector Mountains; Mount Arnould; Mount Pisa; Mount Bonpland; &c.
- LUZULA CAMPESTRIS**, DC.—Abundant.
- LUZULA AUSTRALASICA**, Steudel.—Not rare near the E. coast and in the lowlands of the S. Lawyer's Head; Brighton; Beaumont; &c.
- LUZULA PUMILA**, Hook. f.—Common on mountains from 4,000ft.—6,500ft. Rock and Pillar Range; Old Man Range; Mount Ida, &c.
- LUZULA RACEMOSA**, Desv., var. **TRAVERSII**, Buchenau.—Not rare on all mountains of C. and W., at 3,000ft.—5,000ft. Old Man Range; Mount Ida; Mount Pisa; &c.
- LUZULA PICTA**, A. Rich.—Not rare in the E. and C. Lawyer's Head; Tapanui; &c. I do not see how this can be kept distinct from *L. campestris*, DC., and insert it only because it is recognised as a good species in Buchenau's monograph of the *Juncaceæ*.
- LUZULA CHEESEMANII**, Buchenau.—Not rare on the mountains of the C. Mount St. Bathans; Dunstan Range; Mount Pisa; &c. I have, from various parts of the interior, several other

forms of this most difficult genus that, when better known, may prove distinct species. They have been placed in the hands of Professor Buchenau for determination and description.

*LEPTOCARPUS SIMPLEX*, A. Rich.—Common in sandy and swampy saline stations on the E. and S. coasts.

*HYPOLENA LATERIFOLIA*, Benth.—Not uncommon in wet stations in the S. Inch-Clutha; Catlin's; Otago River; Invercargill; &c.

*GAIMARDIA SETACEA*, Hook. f.—Swampy mountain stations in the E. and S. Maungatua; Blue Mountains (3,000ft.).

*ALEPYRUM PALLIDUM*, Hook. f.—Rare in swampy mountain stations in C. and S. Maungatua; Mount Kyeburn; Clinton Saddle; Blue Mountains.

*CENTROLEPIS VIRIDIS*, T. Kirk.—Maungatua; Blue Mountains; Lake Te Anau (3,000ft.—700ft.).

*CENTROLEPIS MINIMA*, T. Kirk, var.—Shores of Lake Te Anau.

*SCHÆNUS AXILLARIS*, Hook. f.—Bluff; Stewart Island.

*SCHÆNUS PAUCIFLORUS*, Hook. f.—Common in bleak upland valleys. Hindon; Maniototo uplands; Lake District (3,000ft.); Pembroke; &c.

*SCHÆNUS CONCINNUS*, Hook. f.—Not rare in wet, saltish stations near the E. and S. coasts. Waikouaiti; Otago Heads; Catlin's River; &c.

*CARPHA ALPINA*, Br.—Not rare on wet hills in the S. and on the mountains of C. and W. Maungatua; Old Man Range; Blue Mountains. This descends almost to sea-level at the Bluff and Stewart Island.

*SCIRPUS MARITIMUS*, L.—Rather rare on the E. coast. Oamaru; Waikouaiti; Otago Heads. I have not observed it south of the last station.

*SCIRPUS PUNGENS*, Vahl.—Common on salt mud-flats of E. and S. coasts. Dunedin; &c.

*ISOLEPIS NODOSA*, Br.—Abundant on salt sandhills and sandy shores of E. and S. Dunedin; &c.

*ISOLEPIS PROLIFER*, Br.—Invercargill.

*ISOLEPIS RIPARIA*, Br.—Abundant on the E. and S. coasts; less common in wet stations in the interior and W.

*ISOLEPIS CARTILAGINEA*, Br.—Bluff and Stewart Island.

*ISOLEPIS AUCKLANDICA*, Hook. f.—Not uncommon in wet stations on the mountains of C. and W. Old Man Range (4,000ft.); Mount Kyeburn; and mountains of Lake District.



*ISOLEPIS BASILARIS*, Hook. f.—Not uncommon in wet stations of moderate elevation in the middle part of the Clutha Valley. Beaumont; Roxburgh; Speargrass Flat; &c.

*ISOLEPIS INUNDATUS*, Br.—Not uncommon in wet valleys in scrub near the E. and S. coasts. Dunedin; Port Molyneux; Catlin's.

*HELEOCHARIS SPHACELATA*, Br.—Head of Paterson's Inlet.

*HELEOCHARIS ACUTA*, Br., var. *PLATYLEPIS*.—Common in wet stations throughout. Dunedin; Cromwell; Kelso; Catlin's; &c.

*HELEOCHARIS GRACILLIMA*, Hook. f.—Not rare in the interior and S. Maniototo Plain; Te Anau; &c.

*HELEOCHARIS ACICULARIS*, L.—Lake Te Anau.

*DESMOSCHENUS SPIRALIS*, Hook. f.—Abundant on sandhills of E. and S. coasts.

*CLADIUM GLOMERATUM*, Br.—Not rare in wet scrubby valleys. Signal Hill; Catlin's; Heriot; Pembroke; &c. Rather local.

*CLADIUM JUNCEUM*, Br.—Not uncommon on the S. and W., mostly near the seaside. Bluff; Te Anau; &c.

*GAHNIA PROCERA* (?), Forst.—South of Stewart Island; Lake Te Anau; and valleys of S.W. region.

*LEPIDOSPERMA TETRAGONA*, Labill.—Abundant on wet clay hills of E. and S. Dunedin; Bluff; &c.

*OREOBOLUS PUMILIO*, Br.—Not rare in wet mountain stations. Maungatua; Mount Kyeburn (3,500ft.); Dunstan Mountains; Old Man Range; Blue Mountains; Bluff. Descends to sea-level at Inch-Clutha.

*OREOBOLUS STRICTUS*, Berggren.—Not rare on wet hills of E. and S. Swampy Hill; Maungatua; Mount Kyeburn; Hector Mountains (4,000ft.); Blue Mountains. Descends to sea-level at Inch-Clutha.

*UNCINIA LEPTOSTACHYA*, Raoul.—Common in bush and scrub in the E. and S. Dunedin; Kaitangata; Catlin's; &c.

*UNCINIA SINCLAIRII*, Boott.—Not rare in the C. and N.W. Eweburn Creek, Naseby; Black's; Hector Mountains (4,000ft.); Mount Cardrona; &c. Descends to 1,200ft.

*UNCINIA COMPACTA*, Br., var. *DIVARICATA*.—Not uncommon in the higher valleys of C. and W. Mount Ida; Mount Tyn-dall; head of Lake Hāwea; Clinton Valley and Saddle; &c. Ranges from 1,000ft.—5,000ft. The forms found at high elevations are very short and depauperated. My *U. clarkei* is probably only a form of this species. It was

- carefully compared with the type of *U. compacta* by Mr. C. B. Clarke, F.R.S., F.L.S., before I published it, and was by him pronounced to be new. Later materials convinced him that it was only a form of the present species, as was also another form, for which he proposed the name *U. petriei*.
- UNCINIA AUSTRALIS**, Persoon.—Common in bush throughout the district. Dunedin; Catlin's; Lake Hawea; &c.
- UNCINIA FERRUGINEA**, Boott.—Not rare in forests of E. and S. Dunedin; Catlin's; Stewart Island; &c.
- UNCINIA CÆSPITOSA** (?), Boott.—Not rare in bush in the E., S., and W. Dunedin; Catlin's; Lake Te Anau; &c.
- UNCINIA RUPESTRIS**, Raoul.—Common on clay hills and open stations of E. and S. Dunedin; Akatore; Kaitangata; Waipori; Blue Mountains; &c. Up to 3,000ft.
- UNCINIA FILIFORMIS** (?), Boott.—Rather rare on mountains of C. and W. Hector Mountains; Maungatua; &c.
- UNCINIA BANKSII**, Boott.—Rather rare and local in bush in the E. and S. Dunedin; south of Stewart Island.
- UNCINIA RUBRA**, Boott.—Common in open lands of E. and S. Dunedin; Maungatua; Kelso; Clinton; Catlin's; Bluff; &c.
- UNCINIA PURPURATA**, Petrie.—Rather rare in the E.; more common on mountains of N.W. Signal Hill; Swampy Hill; Maungatua; Macrae's; Horse Range; Mount Cardrona; Mount Tyndall; &c.
- UNCINIA RIGIDA**, Petrie.—Common in scrubby and open lands of E., S., and S. central districts. Waitati; Tokomairiro; Tuapeka; Miller's Flat; Akatore; Kaitangata; &c. This plant, which has been referred by different authors to *U. rubra*, Boott, and *U. riparia*, Br., still seems to me as distinct as any species of the genus that is to be found in the colony. It is far more distinct from any of its congeners than *U. ferruginea* is from *U. australis*.
- UNCINIA RIPARIA**, Br.—Not uncommon in bush and scrub in the E., S., and W. Dunedin; Catlin's; Lake Hawea; Lake Te Anau; &c. To this may belong my *U. laxiflora*, which is, however, quite unlike typical specimens of Brown's plant sent me by Baron von Mueller, as well as the figure of the latter in the "Flora Tasmaniae." In my view, Bentham has included more than one species in his character of *U. riparia*, Br., in the "Flora Australiensis."
- UNCINIA TENELLA**, Br.—Clinton Valley; Matukituki Valley.

- CAREX PYRENAICA**, Wahl.—Common on all the mountains of C. and W. at 5,000ft. and upwards. Old Man Range; Hector Mountains; Mount Cardrona; Mount Pisa; Mount Arnould.
- CAREX ACICULARIS**, Boott.—Old Man Range, near head of Obelisk Creek (3,500ft.).
- CAREX INVERSA**, Br.—Rather uncommon in the C. and S. Ida Valley; Maniototo Plain; Strath Taieri; Catlin's.
- CAREX COLENSOI**, Boott.—Common in dry uplands of E., C., and S. Kurow; Maungatua; Blue Mountains; Lake Wanaka; Maniototo Plain; Lumsden; &c.
- CAREX ECHINATA**, Murray.—Not uncommon in lowland and mountain swampy stations. Romahapa; Port Molyneux; Catlin's; Blue Mountains; Lake Te Anau; Hector Mountains (5,000ft.).
- CAREX TERETIUSCULA**, Goodenough.—Rather rare in the E., C., and S. Strath Taieri; Sowburn; Cromwell; Catlin's.
- CAREX VIRGATA**, Solander.—Common in boggy and swampy stations throughout.
- CAREX APPRESSA**, Br.—Common near the E. and S. coasts. Dunedin; Catlin's; also at Lakes Te Anau and Hawea.
- CAREX VULGARIS**, Fries., var. **GAUDICHAUDIANA**, Boott.—Common in wet stations throughout. Ranges from sea-level (Lake Waihola) to 5,000ft. (Hector Mountains).
- CAREX TESTACEA**, Solander.—Common throughout the drier parts of the district. Waikouaiti; Dunedin; Lawrence; Maniototo Plain; mountains at Lake Wanaka; Mount Cardrona (4,000ft.); &c. Long confounded by colonial botanists with *C. raoulii*, Boott, a mistake that led me to describe the true *C. raoulii*, Boott, as a new species—my *C. goyeni*. Mr. T. F. Cheeseman, F.L.S., was the first to recognise the true *C. testacea* of Solander.
- CAREX TERNARIA**, Forst.—Common from sea-level to 4,000ft. Dunedin; Old Man Range; &c.
- CAREX RAOULII**, Boott.—Rather rare in open and scrubby valleys of C. and W. Mount Ida; head of Lake Wakatipu; Lake Wanaka; &c.
- CAREX LUCIDA**, Boott.—Common in lowlands of E., C., and S. Dunedin; Waipahi; Maniototo Plain; &c. Ascends to 2,500ft.
- CAREX PUMILA**, Thunberg.—Common on sandy shores of E. and S.
- CAREX FORSTERI**, Wahl.—Not rare in woodlands of E. and S. Dunedin; Catlin's; Horse Range; Clinton Valley. In the

- last station only a peculiar variety, identical with Cheeseman's *C. cinnamomea*, occurs.
- CAREX PSEUDOCYPERUS**, Br.—Not rare in swamps of E., C., and S. Inch-Clutha; Catlin's; Waipori; Lake Wakatipu. Ascends to 2,000ft.
- CAREX FLAVA**, L.—Not rare in wet stations throughout Otago Heads; Catlin's; Maniototo Plain; Lake Wanaka. Ascends to 3,000ft. at Clarke's Diggings.
- CAREX BREVICULMIS**, Br.—Common in dry open stations. Saddle Hill; Flagstaff Hill; &c. Ascends to 4,000ft. on Mount St. Bathan's, &c.
- CAREX TRIFIDA**, Cavanilles.—Rather rare on the E. and S. coasts. Otago Harbour; Hooper's Inlet; Catlin's; Stewart Island.
- CAREX NEESIANA**, Endl.—Not rare in the E. and S.; much more rare in C. and N. Dunedin; Otago Heads; Catlin's; Horse Range; Roxburgh; &c.
- CAREX DISSITA**, Solander.—Not uncommon in wet forest and open valleys of E. and S.; rarer in N.W. Dunedin; Catlin's; Invercargill; Macrae's (1,800ft.); Lakes Wanaka and Wakatipu.
- CAREX BUCHANANI**, Berggren.—Common in the Upper Clutha basin and the W.; rare in the E. Lake Waihola; Balclutha; Cromwell; Lake Te Anau; &c.
- CAREX DIPSACEA**, Berggren.—Not uncommon in pools and shallow lagoons of E., E. central, and S. districts. Waikouaiti; Maniototo Plain; Manuherikia Plain; Waipahi; Lumsden; &c.
- CAREX COMANS**, Berggren.—Not rare in drier open uplands of E. central district. Waipori; Hyde; Kyeburn Creek; &c. My *C. cheesemani* is doubtless a form of this. Berggren's figure, which I had before me when the latter was described, is not at all characteristic of the prevailing Otago forms of the species.
- CAREX LAGOPINA**, Wahl.—Not rare in lofty mountains of W. and N.W., at 4,000ft.—6,000ft. Hector Mountains; mountains east of Mount Aspiring; head of Lake Wakatipu; &c. My *C. parkeri* is the same plant. I have lately found this at the sources of Broken River, Canterbury.
- CAREX KALOIDES**, Petrie.—Common in the upper Taieri basin; more rare in the Clutha basin. Balclutha; Strath Taieri; Maniototo Plain; St. Bathan's; Speargrass Flat; &c. Ascends to 2,000ft.

- CAREX MUELLERI**, Petrie (= *C. viridis*, mihi, a name previously used).—Not uncommon on the mountains of the C. and N.W. Rough Ridge; Clark's Diggings; Carrick Range; Nevis Valley; Cardrona Valley; &c. Ascends to 4,000ft.
- CAREX WAKATIPU**, Petrie.—Common on the mountains of the C. and N.W. Mount Ida; Mount St. Bathan's; Hector Mountains; Ben Lomond; Mount Cardrona; &c. (from 3,000ft.—5,000ft.).
- CAREX LONGICULMIS**, Petrie.—Glory Cove, Stewart Island.
- CAREX LITTOROSA**, Bailey (= *C. littoralis*, Petrie, a name previously used).—Common on mudflats of E. and S. coasts. Dunedin; Bluff; Paterson's Inlet.
- CAREX UNCIFOLIA**, Cheeseman.—Not uncommon on the mountains and in the higher valleys of the N.W. Mount Cardrona (4,000ft.); Nevis Valley; Arrowtown.
- CAREX RESECTANS**, Cheeseman.—Common in the dry plains of the interior. Gimmerburn; Ida Valley; Albertown; &c.
- CAREX PETRIEI**, Cheeseman.—Not uncommon in the higher valleys of the N. and W. Mount Ida; Dunstan Mountains; Hector Mountains; Mount Cardrona. Ranges from 700ft. at Te Anau to 4,500ft.
- CAREX BERGGRENI**, Petrie.—Rather rare on the mountains of the C. Mount Pisa (5,000ft.); Old Man Range; Mount Kyeburn (3,300ft.).
- CAREX KIRKII**, Petrie.—Common on the mountains of the C. and N.W.; rarer towards the E. Macrae's; Nevis Valley; Old Man Range; Hector Mountains; Mount Pisa (1,800ft.—4,500ft.).
- CAREX THOMSONI**, Petrie.—Not rare on the summits of the highest mountains of the N.W. Old Man Range; Hector Mountains; Mount Pisa. Ranges from 4,500ft. to 6,500ft.
- CAREX HECTORI**, Petrie.—Old Man Range (5,000ft.).
- CAREX NOVÆ-ZEALANDIÆ**, Petrie.—Shores of Lake Te Anau.
- EHRHARTA COLENSOI**, Hook. f.—Clinton Saddle, Lake Te Anau (3,000ft.).
- EHRHARTA THOMSONI**, Petrie.—Paterson's Inlet and head of Port Pegasus, Stewart Island.
- MICROLÆNA STIPOIDES**, Br.—Dunedin; Kelso; Moa Flat; Speargrass Flat; head of Lake Hawea; Invercargill; Stewart Island. It has been alleged that this grass will not stand frost, but at the Speargrass Flat stations it grows most luxuriantly, though the frosts are very severe, and last for several months.

*MICROLÆNA AVENACEA*, Hook. f.—Common in forests throughout. Dunedin; Catlin's; Invercargill; Lake Hawea; Lake Te Anau.

*MICROLÆNA POLYNODA*, Hook. f.—Dunedin, at various stations in the Leith Valley.

*ALOPECURUS GENICULATUS*, L.—Common in wet stations throughout up to 2,000ft. Dunedin; Catlin's; Kelso; Maniototo Plain; Lake Wanaka; Lake Te Anau; &c.

*HIEROCHLOE REDOLENS*, Br.—Common in moist open stations.

*HIEROCHLOE ALPINA*, Roem. and Schultz.—Not rare on wet hills and the higher mountains. Maungatua; Macrae's; Rock and Pillar Range; Waipori; Blue Mountains; Clinton Valley; &c. Descends to sea-level at Inch-Clutha and Catlin's.

*ZOYSIA PUNGENS*, Willd.—Not rare on low terraces of Upper Clutha. Alexandra; Cromwell; Bendigo; Albertown.

*ECHINOPOGON OVATUS*, Beauv.—Not uncommon in dry lowland stations. Dunedin; Beaumont; Lake Wanaka; Arrowtown; &c.

*STIPA SETACEA*, Br.—Kāwarau River; Firewood Creek, Cromwell; Kurow; Duntroon; Wharekuri. This is an Australian grass, and is most probably introduced in these stations.

*DICHELACHNE CRINITA*, Hook. f.—Common throughout in dry, open lowland stations. Dunedin; Lawrence; Cromwell; &c.

*APERA ARUNDINACEA*, Hook. f.—Rare and local in the E. Horse Range; Dunedin; Kaitangata.

*AGROSTIS ANTARCTICA*, Hook. f.—Head of Clinton Valley, Lake Te Anau.

*AGROSTIS CANINA*, L.—Abundant in C., W., and N.; more rare in E. and S. Naseby; Nevis Valley; Cromwell; &c.

*AGROSTIS PARVIFLORA*, Br.—Town Belt, Dunedin. I have not seen this elsewhere in Otago, and am of opinion that it is introduced in the Dunedin district.

*AGROSTIS MUSCOSA*, Kirk.—Abundant on wet hills and uplands of E. and S. Hindon; Waipori; Macrae's; Blue Mountains; &c. Ranges from 1,500ft. to 3,000ft.

*AGROSTIS MUELLERI*, Benth.—Abundant on the mountains of N., C., and W., at 4,000ft. and upwards. Mount Kyeburn; Mount Ida; Mount St. Bathans; Hector Mountains; Mount Pisa; Mount Cardrona; &c.

*AGROSTIS TENELLA*, Petrie.—Macrae's; head of Lake Wakatipu.

*AGROSTIS DYERI*, Petrie.—Mountains east of Hunter River.

*DEYEUXIA FORSTERI*, Kunth.—Abundant in moist lowland stations. Dunedin; Maniototo Plain; Waipori; Lumsden; Lake Te Anau; &c.

*DEYEUXIA STRICTA*, Colenso.—Shores of Lake Te Anau. This is most probably only a variety of the foregoing species, growing in stations sodden with water.

*DEYEUXIA PILOSA*, A. Rich.—Not rare in the mountain valleys of the far W. Hunter River; Matukituki Valley; Clinton Valley.

*DEYEUXIA BILLARDIERI*, Kunth.—Not uncommon on sandhills of E. and S. coasts. Shag Point; Otago Heads; Dunedin Beach; Catlin's; Stewart Island.

*DEYEUXIA SETIFOLIA*, Hook. f.—Rare and local on the central mountains. Hector Mountains; Old Man Range. At 3,500ft.—4,000ft.

*DEYEUXIA AVENOIDES*, Hook. f.—Common on uplands and lower mountain slopes throughout. Swampy Hill; Waipori; Mount St. Bathans; Hunter River; &c. Ascends to 4,000ft.

*DEYEUXIA QUADRISETA*, Br.—Common in the district round Dunedin; more rare in C. and W. Lake Wakatipu; Dunedin. Almost confined to scrubby lands.

*DEYEUXIA SCABRA*, Benth.—Mount Pisa (3,500ft.); Swampy Hill. Most likely introduced.

*DEYEUXIA LEPTOSTACHYA*, T. Kirk (MS.).—Catlin's; Stewart Island. Perhaps a var. of *D. billardieri*, Kunth.

*ARUNDO CONSPICUA*, Forst.—Common in moist open lowland stations.

*DANTHONIA CUNNINGHAMII*, Hook. f.—Not rare on moist banks on E. and S. Dunedin; Waipori; Stewart Island.

*DANTHONIA RAOULII*, Steudel.—Most abundant on uplands and lower hills throughout. Dunedin (100ft.); Waipori; Waipahi; Invercargill; Blue Mountains; Hector Mountains; &c. In the C. and N. this does not descend nearly so low as it does in the E. and S.

*DANTHONIA FLAVESCENS*, Hook. f.—Common on the mountains of the far W., at 4,000ft. and upwards. Mountains east of Lake Hawea and west of Lake Wanaka. Descends to 3,000ft. at Clinton Saddle. The eastern stations mentioned in Mr. Buchanan's work on the New Zealand

Grasses are given in error. He confounded robust forms of *D. raoulii* with the present species.

DANTHONIA SEMIANNULARIS, Br.—Abundant in open lands throughout, and very variable.

DANTHONIA PILOSA, Br.—Signal Hill; Heriot; Kelso.

DANTHONIA BUCHANANI, Hook. f.—Matukituki Valley.

DANTHONIA NUDA, Hook. f.—Common in the drier lowlands and on dry hills of E., C., and N. Macrae's; Kurow; Strath Taieri; Lakes Wanaka and Hawea; Tapanui. *Danthonia thomsoni*, Buchanan, is identical with this. I can vouch for this, as, through the kindness of Sir J. D. Hooker, I have been able to compare a spikelet of the original plant collected by Colenso with specimens of Buchanan's species, which I was the first to collect in Otago. Sir J. D. Hooker did not notice that there were two pencils of hairs on the flowering glume. As they overlap, they would naturally be taken for a single pencil. When a dissecting-needle is slipped in and the edge of the glume raised the two pencils are at once seen. Sir Joseph did not happen to do this, and so described the glume incorrectly as having a single pencil of hairs.

DANTHONIA OVATA, Buchanan, var.—Clinton Saddle (2,500ft.). If this is a form of Buchanan's species the latter has been very poorly described. He did not collect it himself, and most likely had indifferent material to work on. The present plant differs from *D. australis*, Buchanan, only in not being tufted.

DANTHONIA CRASSIUSCULA, T. Kirk.—Mount Arnould, Hunter River (5,000ft.).

DESCHAMPSIA PUSILLA, Petrie.—Hector Mountains (6,000ft.).

DESCHAMPSIA TENELLA, Petrie.—Sources of Water of Leith; Catlin's; Clinton Saddle. In all these stations only in bush.

DESCHAMPSIA CHAPMANI, Petrie.—Head of Clinton Valley, Te Anau (2,000ft.).

DESCHAMPSIA NOVÆ-ZEALANDIÆ, Petrie.—Naseby; Pembroke; Mount St. Bathans; Hector Mountains. Ranges from 1,000ft.—4,000ft. Confined to very wet stations.

DESCHAMPSIA CÆSPITOSA, Beauv.—Common throughout in wet and boggy ground. Dunedin; Waihola; Waipahi; Lumsden; Roxburgh; &c.

KOELERIA CRISTATA, Persoon.—Common in dry uplands and mountains, and on sandhills of E. coast. Dunedin; Old Man Range; Cromwell; Arrowtown; &c.



- TRISETUM ANTARCTICUM**, Trinius.—Not uncommon in rather dry stations. Dunedin; Maungatua; Mount St. Bathan's; &c. A variable plant.
- TRISETUM SUBSPICATUM**, Beauv.—Common, at 4,000ft. and upwards, on mountains of N., C., and W. Kurow Mountains; Old Man Range; Mount Pisa; Mount Cardrona; &c.
- TRISETUM YOUNGII**, Hook. f.—Not uncommon on mountains of W., at 3,500ft.—5,000ft. Carrick Range; Mount Bonpland; Mount Tyndall; Clinton Saddle; &c.
- GLYCERIA STRICTA**, Hook. f.—Common close to the sea on the E. and S. coasts. Oamaru; Dunedin; Catlin's; Bluff; &c.
- ATROPIS PUMILA**, Kirk.—Common on the mountains of the C. and N. and the higher lowlands of the E. and S. Macrae's; Waiwera River; Waipori; Blue Mountains; Mount Ida; Carrick Range; &c. Descends to 200ft. in the S., and reaches 4,000ft. in C.
- ERAGROSTIS IMBECILLA**, Hook. f.—Abundant in the drier parts of the E., C., and N. Dunedin; Manuherikia Valley; Maniototo Plain; Lake District; &c.
- ERAGROSTIS BREVIGLUMIS**, Hook. f.—Port Moeraki; Waipahi; Catlin's. Now a very rare grass, as it is greedily eaten by stock. It grows only in rich alluvial or volcanic lands, and is well worthy of cultivation, as it is a tender, succulent grass, yielding a large amount of herbage.
- POA FOLIOSA**, Hook. f.—Not uncommon on wet slopes on the mountains of the N., C., and W., at 3,000ft.—5,000ft. Mount Ida; Mount Pisa; Mount Cardrona; Clinton Saddle and Valley, where it descends to 1,500ft.
- POA EXIGUA**, Hook. f.—Old Man Range; Hector Mountains; Mount Pisa; Mount Cardrona; &c. (4,000ft.—6,000ft.).
- POA CÆSPITOSA**, Forst.—Common and often abundant in the drier lowlands of the E. and S.; more rare, and chiefly in sandy stations, in the interior.
- POA COLENSOI**, Hook. f.—Common throughout, and ranging from near sea-level to 6,000ft. Very abundant on the mountains of the C. and N. A most valuable fodder-grass, and very variable.
- POA LINDSAYI**, Hook. f.—Common in dry lowland stations in the C. and N. Waitahi Valley; Ngapara; Maniototo Plain; Tuapeka Mouth; Lake District; &c. Ascends to 3,000ft. at Mount Kyeburn.
- POA SCLEROPHYLLA**, Berggren.—On dry, broken shingle on mountains of C. and N.E. Mount Ida; Mount St. Bathan's (4,000ft.—6,000ft.).

**POA PUSILLA**, Berggren.—Common in the E. and S.; rarer in the interior. Dunedin; Maungatua; Catlin's; Kyeburn Crossing; Cambrian; &c. Ascends to 2,500ft. Dr. Berggren's figure of this plant represents a small depauperated form of the species.

**POA INTERMEDIA**, Buchanan.—Dry rocky stations in the C. Black's; Hamilton's; &c. I doubt if this is distinct from *P. colensoi*, Hook. f., which is a very variable plant.

**POA PYGMÆA**, Buchanan.—Plateau on top of Mount Pisa (6,000ft.).

**POA KIRKII**, Buchanan.—Not uncommon in mountain valleys and on mountain slopes in the E., C., and W. Maungatua (2,500ft.); Rock and Pillar Range; Hector Mountains; Humboldt Mountains. A variable plant.

**POA MANIOTOTO**, Petrie.—Common on dry salty plains and river-terraces of the centre. Kurow; Bendigo; Mount Pisa; Maniototo Plain (1,200ft.—3,000ft.).

**POA COLLINSII**, Kirk (MS.).—Nevis Valley; Nenthorn. This may be a form of *Poa kirkii*.

**SCHEDONORUS LITTORALIS**, R. Br., var. **TRITICOIDES**, Benth.—Common on sandhills of E. and S. coasts.

**FESTUCA SCOPARIA**, Hook. f.—Common on cliffs of the E. and S. coasts. Brighton; Catlin's; Stewart Island. I have not observed this north of Brighton, where it is abundant on spray-washed cliffs.

**FESTUCA DURIUSCULA**, L.—Most abundant at 1,000ft. and upwards, both on the dry plains and on the hills and mountains of the interior. West Taieri; Hyde; Maniototo Plain; Macrae's; Tarras; Hawea Flat; &c. This species has been confounded by some botanical workers and most settlers with *Poa cæspitosa*, Forst. It is a much more valuable grass than the latter, which is eaten only when very young. Together with *Agropyrum scabrum* and *Poa colensoi*, it forms the main sustenance of the great flocks of sheep depastured on the uplands of the South Island. It can be readily distinguished from *Poa cæspitosa* by the somewhat rough culm. The culm of the latter is always perfectly smooth.

**AGROPYRUM SCABRUM**, Br.—Common throughout the district, and especially in the dry terrace plains and lower mountain slopes of the central district. Dunedin; Clyde; Ida Valley; &c. The most nutritious grass in the colony, and one of the most difficult to eat out. Being greedily eaten by stock as well as by rabbits, it is seldom allowed to flower, but it holds the ground well in spite of this.

*ASPRELLA GRACILIS*, Hook. f.—Not rare in alluvial flats and in the lower valleys of the E., C., and N. Dunedin; Eweburn Creek; Waipori; &c.

*ASPRELLA LÆVIS*, Petrie.—Catlin's; Matukituki Valley.

*TRIODIA EXIGUA*, Kirk.—Not uncommon in dry plains and river terraces of C. and N.W. Kyeburn Crossing; St. Bathans; Moa Flat; Lake Hāwea. Ranges from 300ft.—2,500ft.

*TRIODIA AUSTRALIS*, Petrie.—Clark's Diggings; Mount Cardrona; Hector Mountains; Old Man Range; Blue Mountains; Maungatua (3,000ft.—5,000ft.). A useful fodder-grass, most abundant and very closely cropped on the Blue Mountains. Elsewhere it grows chiefly by the sides of shallow gently-sloping mountain brooks.

Besides the foregoing grasses I have from Waikouaiti and Deep Stream immature specimens of a grass that will no doubt prove a new genus. Mr. T. Kirk, F.L.S., has gathered the same plant in the Wellington District. I sent specimens of it to Kew a number of years ago.

#### APPENDIX.

*List of Plants reported from Otago which I have not gathered or observed.*

- Ranunculus tenuis*, Buchanan.
- Pachycladon glabra*, Buchanan.
- Pachycladon elongata*, Buchanan.
- Lepidium australe*, Kirk.
- Notothlaspi hookeri*, Buchanan.
- Hectorella elongata*, Buchanan.
- Aristotelia erecta*, Buchanan.
- Melicope parvula*, Buchanan.
- Geum alpinum*, Buchanan.
- Gunnera hamiltoni*, Kirk.
- Ligusticum acutifolium*, Kirk.
- Olearia oleifolia*, Kirk.
- Olearia traillii*, Kirk.
- Erigeron novæ-zealandiæ*, Buchanan.
- Erigeron bonplandi*, Buchanan.
- Celmisia martini*, Buchanan.
- Celmisia robusta*, Buchanan.
- Abrotanella muscosa*, Kirk.
- Haastia montana*, Buchanan.
- Senecio buechanani*, Armstrong.
- Senecio stewartiæ*, Armstrong.
- Senecio bifistulosus*, Hook. f.

*Dracophyllum pearsoni*, Kirk.  
*Mitrasacme hookeri*, Buchanan.  
*Mitrasacme cheesemanii*, Buchanan.  
*Logania armstrongii*, Buchanan.  
*Gentiana hookeri*, Armstrong.  
*Veronica glauco-cœrulea*, Armstrong.  
*Veronica monticola*, Armstrong.  
*Veronica tetrasticha*, Hook. f.  
*Veronica carnea*, Armstrong.  
*Veronica muelleri*, Armstrong.  
*Pygmæa thomsoni*, Buchanan.  
*Ourisia montana*, Buchanan.  
*Plantago hamiltoni*, Kirk.  
*Fagus blairii*, Kirk.  
*Scirpus muscosus*, Kirk.  
*Danthonia flaccida*, Kirk.  
*Poa walkeri*, Kirk.

ART. LVIII.—*Phænogams: A Description of a few more Newly-discovered Indigenous Plants; being a Further Contribution towards the making known the Botany of New Zealand.*

By W. COLENZO, F.R.S., F.L.S. (Lond.), &c.

[Read before the Hawke's Bay Philosophical Institute, 21st October, 1895.]

Class I. DICOTYLEDONS.

Order I. RANUNCULACEÆ.

Genus 3.\* *Ranunculus*, Linn.

1. *R. rufus*, sp. nov.

Plant perennial, large, stout, everywhere hairy; hairs long; shaggy, flattish, acute, dull-red. Leaves broadly orbicular, 3½ in. long, 5 in. wide, reddish-green, chartaceous; margins crenate, teeth broad rounded, base truncate and cordate, hairs strigosely situated; strongly primary-veined from petiole to margins; with secondary veins forming large areolæ of irregular shapes and sizes, usually 5-6 sided, with free branched veinlets within them (compound anastomosing); hairs forming a thickened elevated margin to leaves; petioles stout,

\*The numbers of the orders and genera given here are those of them in the "Handbook of the New Zealand Flora."