

INDIGENOUS VASCULAR PLANTS ON RED HILLS, WAIRAU V.

2000-5875 FT (600-1785 M)

Highest point: Red Hill 5875 ft, grid ref. S27 420868

A.P. Druce, Botany Division, D.S.I.R., June 1974

(revised April 1975, July 1975, July 1976, Feb. 1977, June 1978,

June 1979, May 1980, Feb. 1981, May 1981,

June 1981, Oct. 1981, June 1982, Aug. 1982, July 1983, Aug 1986,

(Based on visits 1965, 1974, 1980, 1985, 1987, 1992)

Aug. 1984, May 1987.

Nov. 1984, Aug. 1987.

June 1985, Sept. 1987.

June 1986, Oct. 1987.

Dec. 1987.

m - in ultramafic area ("mineral belt"), including overlying peat areas; m confined to ultramafic area

() - uncommon (in ultramafic area)

June 1988, Nov. 1988.

Nov. 1990, July 1991,

May 1992, May 1993.

GYMNOSPERM TREES AND SHRUBS

- m *Halocarpus bidwillii*
- H. biformis*
- m *Lepidothamnus laxifolius*
- Libocedrus bidwillii*
- m *Phyllocladus alpinus* ss.

(m) *P. sp.* (unnamed; included in *P. colensoi*, as var. *ternatus* and as var. *fiordensis*, by Wardle 1968)

- (m) *Podocarpus hallii*
- (m) *P. nivalis*
- (m) *P. hallii* x *P. nivalis*

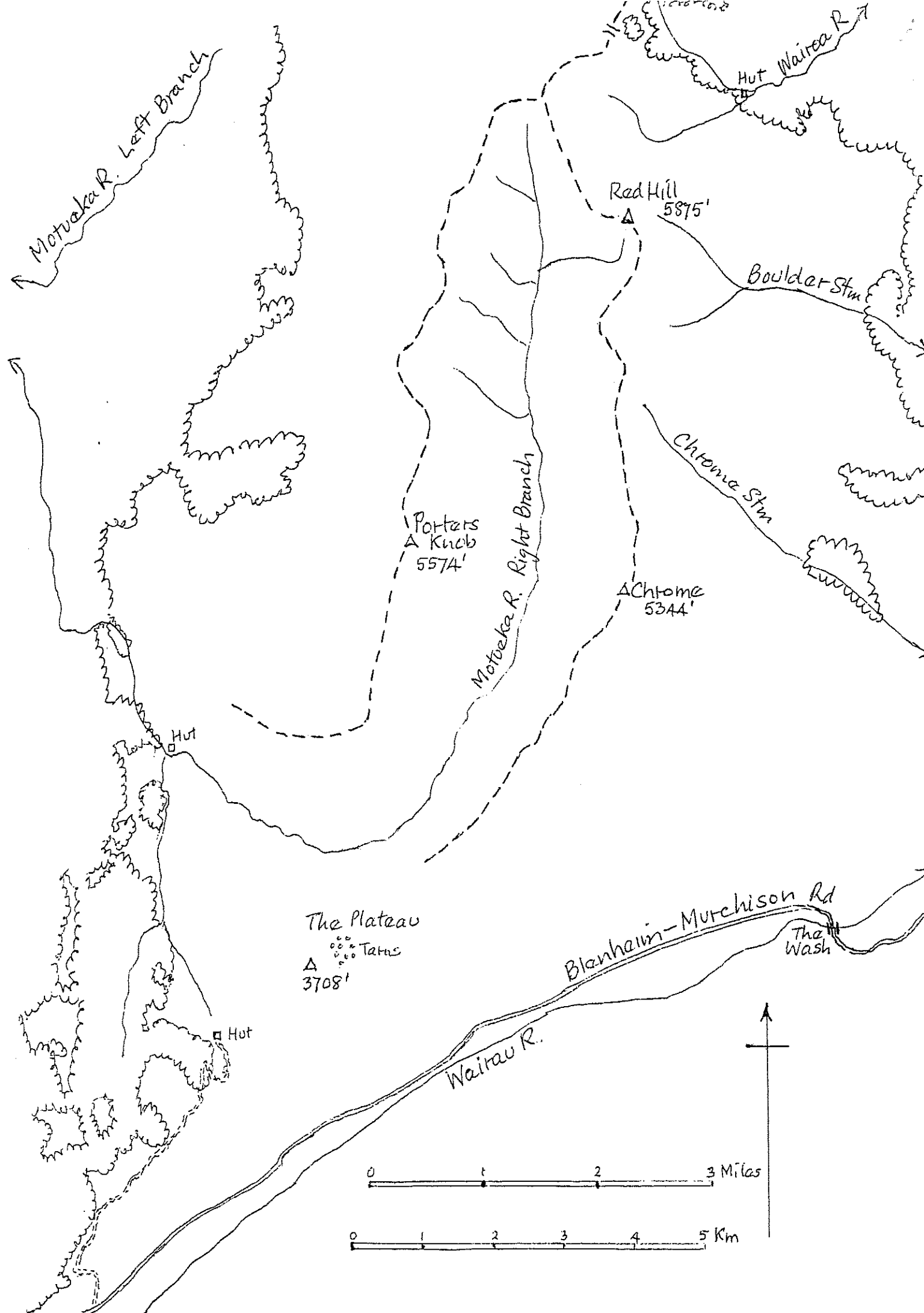
DICOT SHRUBS

- m *Aristotelia fruticosa* var. *A. f. X A. serrata*
- (m) *Brachyglottis bidwillii* var. *viridis*

DICOT TREES

- Elaeocarpus hookerianus*
- Fuchsia excorticata*
- m *Griselinia littoralis*
- Melicactus lanceolatus* (incl. *M. l. var. latior*)
- Nothofagus fusca*
- N. menziesii*
- m *N. solandri* var. *cliffortioides*
- N. fusca* x *N. solandri*
- Pittosporum patulum*
- m *Pseudopanax crassifolius*

- m *Cassinia vauvilliersii*
- m *Coprosma cheesemanii* s.s.
- C. linatifolia*
- C. microcarpa*
- m *C. propinqua* ssp. *propinqua*
- (m) *C. pseudocuneata* ssp. *C. rhamnoides* (incl. *C. polymorpha*)



Motuaka R. Left Branch

Hut Nairea R

Red Hill
5875'

Boulder Stm

Porters
Knob
5574'

Motuaka R. Right Branch

Chitome Stm

Chitome
5344'

Hut

The Plateau
Talus
3708'

Hut

Blenheim-Murchison Rd

The Wash

Waitau R.

0 1 2 3 Miles

0 1 2 3 4 5 Km

- C. rugosa* ssp. *rugosa*
 m *C. sp.* (i) (unnamed; included in *C. parviflora* by Oliver, 1935, and others) (If undersurface not minutely hairy as is usual in *C. parviflora*; drupes vs. unpigmented, occ. purplish red)
- † m *C. sp.* (ii) (unnamed) (prostrate shrubs; lvs plano-convex, linear; drupes orange)
- (m) *C. propinqua* X *C. robusta*
 (m) *Coriaria sarmentosa*
 m *Corokia cotoneaster* var. *cotoneaster*
 (m) *Cyathodes dealbata* (incl. *C. pumila*)
 m *C. empetrifolia*
 m *C. sp.* (*C. juniperina* agg.) (lvs small, vs. $< 1 \text{ cm} \times < 1 \text{ mm}$)
 m *Dracophyllum longifolium* var. (incl. *D. filifolium* and *D. oliveri*)
 m *D. pronom*
 m *D. uniflorum*
 m *D. longifolium* X *D. pronom*
 m *D. l.* X *D. uniflorum*
 (m) *Epacris alpina*
 m *Exocarpus bidwillii*
 (m) *Gaultheria antipoda*
 (m) *G. crassa*
 m *G. sp.* (unnamed; included in *G. depressa*, as var. *novae-zelandiae*, by Franklin 1962)
- Pernettya macrostigma*
 (m) *P. m.* X *Gaultheria sp.* (unnamed)
Habe anomala
 m *H. carnosula*
H. gracillima
 m *H. odora* s.s.
 (m) *H. salicifolia* var. *salicifolia*
 (m) *H. topiaria*
 m *H. venustula* (incl. *H. brachysiphon*)
 (m) *H. vernicosa*
- m *Kunzea ericoides* agg.
- m *Leptospermum scoparium*
 m *Leucopogon fasciculatus* var.
 m *L. fraseri* s.s.
 m *L. suaveolens* (incl. *Cyathodes colensoi*)
 m *Meliccytus alpinus* s.s.
 m *Myrsine divaricata* s.s.
M. nummularia
Neomyrtus pedunculata
 m *Olearia avicenniifolia*
 (m) *O. nummularifolia* var. (lvs distinctly longer than broad, rather than suborbicular as in var. *nummularifolia*)
 (m) *O. serpentina*
 m *Pentachondra pumila*
 m *Pimelea suteri*
Pittosporum divaricatum
 m *P. anomalum*

DICOT LIANES & RELATED PLANTS

- m Clematis forsteri ("rutifolia" forms)
- m Muehlenbeckia axillaris
- Rubus cissoides var. (leaflets broader than in var. cissoides)
- R. schmidelioides var. sub-pauperatus

LYCOPODS

- m Lycopodium australianum
- m L. fastigiatum
- m L. scariosum
- (m) L. varium (incl. L. billardierei and L. novae-zelandicum)
- m L. volubile

FERNS

- (m) Asplenium hookerianum
- (m) A. flaccidum
- A. richardii
- m A. terrestre ssp. terrestre
- (m) A. flaccidum x A. terrestre
- (m) A. sp. (unnamed; aff. A. trichomanes)
- (m) Blechnum discolor
- (m) B. fluviatile agg.
- (m) B. penna-marina
- (m) B. procerum
- m B. vulcanicum
- (m) B. sp. (unnamed) (mountain sp; lower pinnae not reduced in length)
- Botrychium australe
- B. bifforme
- (m) Cystopteris tasmanica
- m Gleichenia microphylla
- (m) Grammitis patagonica
- (m) G. poeppigiana
- Histiopteris incisa

(m) Hymenophyllum multifidum

(m) H. villosum

Hypolepis millefolium

Leptopteris hymenophylloides

Ophioglossum coriaceum agg.

(m) Phymatosorus pustulatus

(m) Polystichum vestitum

m Pteridium esculentum

ORCHIDS

m Aporostylis bifolia

(m) Caladenia lyallii

Chiloglottis cornuta

(m) Corybas macranthus

C. trilobus s.s.

Microtis unifolia

m Prasophyllum colensoi

(m) Pterostylis australis

(m) P. humilis

(m) Thelymitra decora

m T. longifolia

GRASSES

Agrostis personata

m A. sp. (unnamed; aff. A. dyeri)

(m) Chionochoa australis

m C. defracta

m C. tubra ssp.

m C. defracta x C. tubra

- m *Dryocuxia avenoides* (incl. *D.a.* var. *brachyantha*)
- Elymus narduroides*
- (m) *E. sp.* (aff. *E. rectisetus*)
- m *Festuca sp.* (i) (unnamed; aff. *F. tubra*)
- m *F. sp.* (ii) (*F. matthewsii* sensu Connor 1968)

- m *Hierochloa novae-zelandiae*
- m *H. redolens*
- (m) *Lachnagrostis sp.* (unnamed; included in *L. filiformis*, as var. *semi-glabra*, by Zotov 1965)

- m *Poa acicularifolia* ssp. *ophitalis*
- P. breviglumis*
- P. cita* ssp.
- m *P. colensoi*
- P. imbecilla*

- m *Rytidosperma buchananii*
- (m) *R. gracile*
- m *R. setifolium*

- m *Triquetum sp.* (i) (unnamed; aff. *T. antarcticum*) (if sheath densely hairy with both long and short hairs, especially in the lower two-thirds)
- m *T. sp.* (ii) (unnamed; included in *T. antarcticum*, as ssp. *tenellum*, by Petrie 1912)

- C. dissita* ss.
- m *C. echinata* var. (*C. stellulata* var. *australis*)
- C. forsteri*
- C. goyenii*
- m *C. sinclairii*
- m *C. traversii*
- m *C. unciifolia*
- C. sp.* (?) (*C. dissita* var. *monticola*?)
- m *Catpua alpina* s.s.
- m *Isolepis aucklandica*
- I. habra*
- m *I. subtilissima*
- I. sp.* (*I. pottsii*?)
- (m) *Lepidosperma australe*
- m *Oreobolus pectinatus*
- (m) *O. strictus*
- m *Schoenus pauciflorus* s.s. ("Slender form" of Edgar 1970, p. 194)

- m *Uncinia divaricata*
- m *U. fuscovaginata* var. ^{plants} (*glauca*)
- U. rupestris* (incl. *U. angustifolia*)

- m *U. uncinata*
- RUSHES**
- m *Centrolepis ciliata*
 - m *Empodisma minus*
 - (m) *Juncus gregiflorus*
 - m *J. novae-zelandiae*
 - J. sarophorus*

SEDGES

- m *Carex breviculmis*
- C. comans*
- (m) *C. coriacea*
- (m) *C. dallii*
- m *C. devia*

m *Luzula migrata*

m *L. picta* s.s.

L. subclavata

m *L. sp. (i)* (unnamed; included in *L. picta*, as var. *limosa*, by Edgar 1966)

m *L. sp. (ii)* (unnamed; aff. *L. rufa*)*

clad in both short glandular hairs and long multicellular, non-glandular hairs with cottony tips; fl margins white with a band of cottony hairs)

(m) *Gnaphalium audax*

G. vahanicum

MONOCOT HERBS (OTHER THAN ORCHIDS, GRASSES, SEDGES, RUSHES)

m *Astelia graminea*

m *A. nervosa* s.s.

m *A. sp.* (unnamed; aff. *A. nervosa*)
(lvs narrower than in *A. nervosa*)

(m) *Bulbinella hookeri*

m *Phormium cookianum*

COMPOSITE HERBS

m *Anaphalis sp.* (*Helichrysum bellidifloroides* s.s.)

m *Brachyglottis lagopus* var. *lagopus*

m *Celmisia alpina* s.s.

m *C. gracilentata* ssp.

(m) *C. uicana* (incl. *C. discolor*)

(m) *C. montai* ssp.

(m) *C. sinclairii* (incl. *Callanina durietzii*)

m *C. spectabilis* ssp. *spectabilis*

m *C. sp.* (unnamed) (plants rhizomatous)

(m) *C. gracilentata* x *C. spectabilis*

(m) *Leptinella dioica* ssp. *dioica*

m *L. sp. (i)* (*Cotula linearifolia*)

(m) *L. sp. (ii)* (*L. squalida* ssp. *mediana*)

m *Craspedia sp.* (unnamed) (summer-green; lvs green, both surfaces)

Pseudognaphalium sp. (unnamed; aff. *P. luteoalbum*) (lvs mostly oblong spatulate to narrowly oblong, rounded)

(m) *Helichrysum filicaule*

(m) *Lagenifera cuneata*

L. pinnatifida

L. pumila

L. strangulata

m *Microseris scapigera* var.

(m) *Raoulia australis* s.s.

m *R. glabra*

(m) *R. grandiflora* var. *grandiflora*

R. subsericea

R. tenuicaulis (incl. *R. t.* var.

dimorpha and *R. t.* var. *pusilla*)

Senecio minimus

DICOT HERBS (OTHER THAN COMPOSITES)

(m) *Acaena anseriniifolia*

(m) *A. inermis*

A. juvenca

(m) *A. profundeincisa*

* (lvs up to 2.5 mm wide, channelled, strict, heads 6-9 (12) mm diam.; tepals slightly > capsules)

m *Anisotome aromatica*
m *A. filifolia*

m *A. flexuosa* var. (lvs broader than
in var. *flexuosa*, ultimate seg-
ments produced into acicular tips
upto 5mm long)

Cardamine sp. (i) (cf. *C. corymbosa*)
m *C. sp. (ii)* (*C. debilis* agg.) (style
short)

m *Colobanthus* sp. (i) (unnamed)
(resembling *Sagina pro-*
cumbens)

m *C. sp. (ii)* (unnamed) (sepal us. 4,
rarely 5; lvs and sepals acicul-
ar-tipped)

m *Drosera aeturi*

(m) *D. spatulata*

Epilobium alsinoides ss.

(m) *E. atriplicifolium* ss.

(m) *E. brunnescens*

E. cinereum

E. cockayneanum

E. komarovianum

E. linnaeoides

E. nummularifolium

(m) *E. pubens*

E. rotundifolium

E. tenuipes s.s.

(m) *E. sp.* (unnamed; included in *E.*
brunnescens, as ssp. *minutiflorum*,
by Raven and Engellhorn, 1971)

m *Forstera tenella*

(m) *Galium perpusillum* ss.

G. propinquum

(m) *Geranium sessiliflorum* var. n. 3

(m) *G. sp. (i)* (unnamed; aff. *G. microphyllum*)

m *G. sp. (ii)* (unnamed)

m *Gentiana sp. (i)* (unnamed; aff. *G.*
ballidifolia)

m *G. sp. (ii)* (unnamed; aff. *G. montana*)

m *G. sp. (iii)* (unnamed; aff. *G. tenuifolia*)

(biennial; stems few, tall, erect)

(m) *Gingidia montana*

(m) *Gonocarpus aggregatus*

m *G. micranthus* ssp. *micranthus*

Hydrocotyle microphylla

H. moschata

H. sp. (unnamed; included in *H.*

novae-zeelandiae, as var.

montana, by Kirk 1899)

(m) *Hypericum japonicum* agg.

(m) *Kelleria laxa*

m *K. sp.*

Mantha cunninghamii

Myosotis forsteri

m *M. laeta* (type loc.)

m *M. montoi*

(m) *Myriophyllum propinquum*

m *Neopaxia* sp. (incl. *Montia calycina* & *Claytonia australasica* var. *briflora*)
Nertera ciliata

N. depressa (include *N. cunninghamii*)

N. sp. (unnamed; aff. *N. dichondrifolia*) (hairs present on both surfaces of lf, straight, not hooked as in *N. dichondrifolia*)

m *Notolka sp. (i)* (*N. australe* auct., non *N. australe* ss.)

m *N. sp. (ii)* (unnamed)
(lvs thick, fleshy, linear to linear-ob-lanceolate; margins entire or with a few small lobes)

m *Oreomyrthis colensoi* ss. (incl. *O. c.* var. *hispida* and *O. c.* var. *multifida*)

O. sp. (unnamed; aff. *O. ramosa*)

(m) *Oreostylidium subulatum*

Ouisia lactea ssp. *lactea*

R. membranifolius

R. reflexus

(m) *R. verticillatus*

(m) *R. sp.* (unnamed; included in *R. lappaceus*, as var. *macrophyllus*, by Kurtz 1899)

(m) *Scleranthus brockiei*

S. uniflorus

(m) *Stackhousia minima*

Urtica incisa

m *Viola cunninghamii*

V. filicaulis

m *Wahlenbergia albomarginata*

var. *albomarginata* (incl. *W. pygmaea* var. *laxa*, *W. brockiei*, and *W. simpsonii*)

(m) *Plantago novae-zelandiae*

(m) *P. raoulii*

Pratia angulata agg.

Ranunculus foliosus

No. of species: 276.

Record not accepted

Leptinella pectinata (Martin 1932, as *Cotula pectinata*)

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