



# Mt hutt *Gentianella to leucopogon*

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Made on the New Zealand Plant Conservation Network website: [www.nzpcn.org.nz](http://www.nzpcn.org.nz)

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## INTRODUCTION

This book was compiled from information stored on the website of the New Zealand Plant Conservation Network ([www.nzpcn.org.nz](http://www.nzpcn.org.nz)).

This website was established in 2003 as a repository for information about New Zealand's threatened vascular plants. Since then it has grown into a national database of information about all plants in the New Zealand botanic region including both native and naturalised vascular plants as well as non-vascular plants and fungi.

Funding to develop the website was provided by the New Zealand Government's Terrestrial and Freshwater Biodiversity Information System Programme (TFBIS). The website is run by a team of volunteers and is continually improving in both the richness of content and the range of functions it offers.

The species information used on the website has come from a variety of sources which are cited at the bottom of a species page.

Where no published treatment was available Peter used herbarium specimens and his own knowledge of the flora to prepare species pages. Various other contributors have provided text and additional information to many species pages including botanists such as John Barkla, Cathy Jones, Simon Walls, Nick Singers, Mike Thorsen and many others. The threatened fungi text was written by Eric Mackenzie and Peter Buchanan (Landcare Research) and aquatic plant information was supplied by Paul Champion from NIWA. Colin Ogle has contributed to the exotic species fact sheets.

More than 200 photographers have kindly provided images to illustrate the website and for use in this book especially John Smith-Dodsworth, Jeremy Rolfe, Peter de Lange, Wayne Bennett and Gillian Crowcroft, Mike Thorse, Colin Ogle and John Sawyer.

## THE NEW ZEALAND BOTANIC REGION

The information on the Network website, from which this book was compiled, is for species that are indigenous to or naturalised within the New Zealand Botanic Region as defined by Allan (1961). The New Zealand botanic region encompasses the Kermadec, Manawatawhi/Three Kings, North, South, Stewart Island/Rakiura, Chatham, Antipodes, Bounties, Snares, Auckland Campbell island/Motu Ihupuku and Macquarie.

## ABOUT THE NETWORK

The Network has more than 800 members worldwide and is New Zealand's largest non-governmental organisation solely devoted to the protection and restoration of New Zealand's indigenous plant life.

The vision of the New Zealand Plant Conservation Network is that *'no indigenous species of plant will become extinct nor be placed at risk of extinction as a result of human action or indifference, and that the rich, diverse and unique plant life of New Zealand will be recognised, cherished and restored'*.

Since it was founded in 2003 the Network has undertaken a range of conservation initiatives in order to achieve its vision.

That work has included:

- Training people in plant conservation
- Publishing plant books, reports and posters
- Raising money for the David Given Threatened Plant Research Trust to pay for plant conservation research scholarships
- Educating people about plant life through the Network website
- Connecting people through our website, the monthly newsletter, the Network conference and the annual general meeting

## WHAT IS A THREATENED PLANT?

The NZ Threatened Plant Committee was formed in 1991 and ever since then it has met at regular intervals to review the status of indigenous vascular plants. It is made up of a team of botanists that between them have an extensive knowledge of the native plants of New Zealand.

This committee applies a set of criteria to each native plant to determine its conservation status. The resulting list of species classified as threatened is published in the NZ Journal of Botany (see for example [de Lange et al. 2018](#)). The main threat categories used are: Extinct, Nationally Critical, Nationally Endangered and Nationally Vulnerable, Declining. Other categories used are: Recovering, Relict, Naturally Uncommon, Coloniser, Vagrant and Data Deficient. For vascular plants the threat status used in this book is taken from the ['Conservation status of New Zealand indigenous vascular plants, 2017'](#) by [de Lange et al. \(2018\)](#).

Recently other committees have been established to review the status of non-vascular plants and have produced assessments for New Zealand mosses ([Rolfe et al., 2016](#)) as well as horworts and liverworts ([de Lange et al., 2015](#)).

# Gentianella divisa

## COMMON NAME

Gentian

## SYNONYMS

*Gentiana bellidifolia* var. *divisa* Kirk, *G. divisa* (Kirk) Cheeseman,  
*Gentianella bellidifolia* var. *divisa* (Kirk) T.N.Ho et S.W.Liu, *Chionogentias*  
*divisa* (Kirk) L.G.Adams

## FAMILY

Gentianaceae

## AUTHORITY

*Gentianella divisa* (Kirk) Glenny

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

GENDIV

## CHROMOSOME NUMBER

2n = 36

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, from Canterbury south along the main divide into Fiordland

## HABITAT

Alpine. A species of field field, ridge lines, stable scree slopes, snowbanks and cushion bog, Herbfield and high altitude tussock grassland.



Pisa range, January. Photographer: John Smith-Dodsworth



Harris Mountains, Otago, 1750m. Photographer: Jesse Bythell

## FEATURES

Plants monocarpic, biennial, possibly triennial, height in flower 40–200 mm. Caudex unbranched, c.20 mm long. Root 2–6 mm diameter at stem base. Flowering stem terminal, 1.7–5.0 mm diameter at base, 1.4–4.0 mm diameter when dry, stem colour green, tinted slightly purple-black, or bronze, lateral branches of the flowering stem erect to decumbent, flowering stem leaves 0–4 pairs per stem, lowest pedicels from near base of flowering stem to near apex of flowering stem. Rosette of leaves absent to distinct from flowering stem leaves; leaves elliptic, orbicular, obovate or narrowly obovate, 16–65 × 7.5–21 mm wide, green, usually flat, sometimes V-shaped or channelled, slightly recurved or not; petiole indistinct, c.13 mm long, 2.8–8.0 mm wide at leaf base; leaf apex rounded. Flowering stem leaves narrowly ovate. Pedicels 1–2 per leaf axil, 7–50 mm long, 1.0–1.9 mm diameter. Flowers 11–60 per plant, 15–20 mm long, often female. Calyx 8.5–11.0 mm long, green or bronze, or green tinted purple-black at lobe apices, hairs at calyx–corolla fusion line absent; 4–7-lobed, lobes 5.0–9.0 mm long, 2.0–5.0 mm wide at base, plane but surface often rugose, apices acute, margins smooth or minutely denticulate, sinus hairs sparse to abundant. Corolla 4–6-lobed, 13.5–18.6 mm long, white; tube 3.0–5.6 mm long; lobes 10.2–14.5 × 5.2–9.5 mm wide, hairs below sinus present; nectary 0.6–1.9 mm from corolla base. Filaments 8.5–13.4 mm long from corolla base, 0.9–2.4 mm wide. Anthers 1.9–2.8 mm long, anther wall blue-black, mouth yellow or orange-red, extrorse at anthesis. Stigma colourless, purple, crimson, or blue. Ovules 29–76 per ovary, ovary yellow or purple-black in maturity. Capsule 15–17 mm long.

## SIMILAR TAXA

Recognised by the unbranched caudex, the single taproot, the flat, ± orbicular leaves with obtuse apices and petiole up to 4 mm wide. The central flowering stem is equal in size to the many branches so giving a dense, even surface of flowers. The calyx lobes are wide, project along the lobe fusion lines or overlap each other more than usual, and are rugose on their outer surfaces, often with six calyx lobes. Can be confused with *G. corymbifera* but *G. divisa* is usually shorter, and with a much denser branching structure so that the main stem is difficult to see inside the mass of flowers.

## FLOWERING

January – March

## FLOWER COLOURS

White, Yellow

## FRUITING

March – May

## LIFE CYCLE

Seeds dispersed by ballistic projection, wind and water (Thorsen et al., 2009)

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild.

## ETYMOLOGY

**gentianella**: Little Gentiana (named after Gentius, 6th century king of Illyria, who found the roots of the yellow gentian to have a healing effect on his malaria-stricken troops)

**divisa**: Divided

## WHERE TO BUY

Not Commercially Available

## ATTRIBUTION

Description modified from Glenny (2004)

## REFERENCES AND FURTHER READING

Glenny, D. 2004: A revision of the genus *Gentianella* in New Zealand. *New Zealand Journal of Botany* 42: 361–530.  
Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gentianella-divisa/>

# Geum leiospermum

## COMMON NAME

geum, mountain avens

## SYNONYMS

*Oncostylus leiospermus* (Petrie) F.Bolle

## FAMILY

Rosaceae

## AUTHORITY

*Geum leiospermum* Petrie

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

GEULEI

## CHROMOSOME NUMBER

2n = 70

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand: North (Mt Egmont, Ruahine Range) South and Stewart Islands

## HABITAT

Montane to subalpine, in scrub, bogs, herbfield, tussock grassland, fell field, snowbanks, and streambanks.

## FEATURES

Erect herb up to 250 mm tall at flowering, arising from a slender stock. Basal leaves rosulate, up to 120 mm long, sparsely to densely clad in slender white-pilose hairs, pinnate; lateral leaflets in up to 10 pairs, reduced and often minute; terminal leaflet 10-25 mm long, serrate-dentate; cauline leaves few and bract-like, deeply toothed. Peduncle up to 250 mm tall. Scapes up to 250 mm long, simple to sparingly branched, (1-)2-4-flowered, distinctly pubescent, hairs in mixtures of short and long. Flowers 6-9 mm diameter. Petals (1-)5 mm long, white, suborbicular. Receptacle elongate, villous. Achenes numerous, c.2 mm long, narrow-oblong, glabrous, occasionally with a few hairs on shoulder; style minute, glabrous, recurved.



Ruahine range, February. Photographer: John Smith-Dodsworth



Geum leiospermum, Old Womans Range. Photographer: John Barkla



### **SIMILAR TAXA**

Reduced forms of *Geum leiospermum*, bearing only one flower are superficially similar to *G. pusillum* Petrie a species which usually has solitary flowers. From such plants *G. leiospermum* differs by the hairs of the peduncle which are intermixed (long/short) rather than uniformly short, and also by the lateral leaflets which are usually distinctly more reduced in relation to the terminal leaflet.

### **FLOWERING**

November – February

### **FLOWER COLOURS**

White

### **FRUITING**

January – April

### **LIFE CYCLE**

Hooked achenes dispersed by attachment (Thorsen et al., 2009).

### **PROPAGATION TECHNIQUE**

Easily grown in pots in an alpine house, and in cooler climates within a rock garden. Best grown from fresh seed.

### **ETYMOLOGY**

**geum:** Possibly from the Greek *geuo* 'to give a pleasant flavour', the roots of some species being aromatic.

### **WHERE TO BUY**

Not Commercially Available

### **ATTRIBUTION**

Description adapted from Allan (1961) and Webb et al. (1988)

### **REFERENCES AND FURTHER READING**

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Government Printer, Wellington

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: Flora of New Zealand. Vol. IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons. 4. Christchurch, New Zealand, Botany Division, D.S.I.R.

### **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/geum-leiospermum/>

# Haastia recurva var. recurva

## COMMON NAME

Haastia

## SYNONYMS

*Haastia recurva* Hook.f.

## FAMILY

Asteraceae

## AUTHORITY

*Haastia recurva* Hook.f. var. *recurva*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## CHROMOSOME NUMBER

$2n = 60$

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island: Marlborough

## HABITAT

Subalpine to alpine screes,

## FEATURES

Dirty greyish-yellow to grey-coloured, summer-green, perennial plant forming rather densely to laxly branched, procumbent patches. Branches up to c.250 mm long; branchlets covered by sheathing bases of leaves, c.5 mm diameter. Leaves up to 20 × 10 mm, obovate, upper half somewhat thickened and strongly recurved, rugose, the whole clad in dense long fulvous to rufous hairs except adaxial portion of base; veins 5-10, anastomosing above. Receptacle c.3-5 mm. diameter; involucre bracts linear, tips recurved, under surface pilose. Achenes 2.5-3.0 mm. long, linear, compressed; pappus c.9 mm long.

## SIMILAR TAXA

Distinguished from *Haastia pulvinaris* by the less compact, openly branched, distinctly leafy growth habit. *Haastia recurva* differs from *H. sinclairii* by the very strongly recurved leaves, and floccose rather than appressed to subappressed leaf tomentum. *Haastia recurva* var. *wallii* is chiefly distinguished from var. *recurva* by the small leaves and capitula; by the hairs which are mostly whiter and by the distinctly apiculate rather than linear, recurved involucre bracts



Mt Hutt, January. Photographer: John Smith-Dodsworth



Mt Hutt, January. Photographer: John Smith-Dodsworth



## FLOWERING

November - January

## FLOWER COLOURS

Orange, Yellow

## FRUITING

December – February

## LIFE CYCLE

Pappate cypselae are dispersed by wind (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild

## ETYMOLOGY

**haastia**: After Haast

**recurva**: Bent back

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Description adapted from Allan (1961)

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I, Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/haastia-recurva-var-recurva/>

# Veronica haastii

## COMMON NAME

Hebe

## SYNONYMS

*Hebe haastii* (Hook.f.) Cockayne et Allan, *Leonohebe haastii* (Hook.f.) Heads, *Leonohebe haastii* (Hook.f.) Heads var. *haastii*

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica haastii* Hook.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

HEBHAA

## CHROMOSOME NUMBER

2n = 42

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Low growing shrub with erect twigs bearing pairs of small curved reddish green or green thick fleshy rounded notched leaves that hardly narrow to a broad leaf stalk that touch those of the opposing leaf inhabiting South Island mountains. Leaves to 12mm long.

## DISTRIBUTION

South Island. Predominantly on mountains of Canterbury, from the Craigieburn Range to The Hunters Hills, with a disjunct, northernmost occurrence on Mount Terako, Marlborough.

## HABITAT

Grows in open, alpine sites on rock debris and scree.



Mt Hutt. Photographer: Phil Garnock-Jones

## FEATURES

Spreading low shrub to 0.2 m tall. Branches decumbent or ascending or spreading, old stems brown; branchlets purplish or green or brown, puberulent, hairs bifarious; internodes 2.5-7 (-10) mm; leaves not readily abscising, persisting on stem (usually) or decaying leaving basal parts attached. Leaf bud tightly surrounded by recently diverged leaves. Leaves decussate, connate, erecto-patent to patent; lamina elliptic to obovate or ovate or spatulate (rarely, on lowermost leaves), coriaceous to fleshy, flat or concave, (6.6-) 8.2-13 x (4.2-) 5.5- 9.3 (-11.6) mm; apex rounded to subacute; midrib slightly thickened below, sometimes evident in fresh leaves (below); margin not cartilaginous, not thickened, glabrous, often tinged red, entire or shallowly to deeply toothed; upper surface green to dark green (sometimes tinged dark red), dull or glossy, with many stomata, glabrous; lower surface green to dark green (sometimes tinged dark red), dull or glossy. Inflorescences with 4-6 flowers per spike, (8-) 12-19 (-25) spikes per flowering head, terminal and lateral (arranged in a terminal flowering head), unbranched, (0.85-) 1.3-3.3 cm (total length of flowering head), spikes about equal to subtending leaves (flowering head longer than subtending leaves); peduncle 0-0.1 cm; rachis 0.2-0.3 cm. Bracts lowermost pair opposite, then subopposite or alternate above, connate, oblong to deltoid or lanceolate, acute to subacute or rarely obtuse. Flowers hermaphrodite or female (on different plants). Pedicels absent. Calyx 4-5 (-6) mm; lobes oblong or elliptic to lanceolate, subacute to obtuse. Corolla tube glabrous; tube of hermaphrodite flowers 4-5.5 (-6) x 1.8-2 mm, cylindric, shorter than or equalling calyx; lobes white at anthesis, elliptic or ovate, subacute. suberect to patent, shorter than corolla tube. Stamen filaments remaining erect, 0.1-0.4 mm; anthers pink, 1.1-1.2 mm. Ovary rarely hairy, 1.5-2 mm; ovules 24-30 per locule, in 1-2 layers; style 2-2.4 (-4) mm. Capsules subacute, 5-6 x 2.5-3.7 mm, loculicidal split extending  $\frac{1}{4}$ - $\frac{1}{2}$ -way to base. Seeds more or less flattened, more or less broad ellipsoid, straw-yellow, 0.9-1.3 x 0.6-0.9 mm, micropylar rim 0.1-0.2 mm

## SIMILAR TAXA

Distinguished from other "Connatae" by both flavonoid and morphological characters (Kellow et al. 2003); it is most similar to *V. macrocalyx* and *V. epacridea*. It is distinguished from the former by darker coloured, decussate leaves that are not narrowed into a petiole, shorter calyx lobes, and larger but more compact flowering heads. It is distinguished from the later by larger, toothed and less rigid leaves, which are never keeled and do not have thickened margins, and by minutely ciliolate (rather than long-ciliate) calyx lobes.

## FLOWERING

December-January (-February)

## FLOWER COLOURS

White

## FRUITING

January-April (-August)

## LIFE CYCLE

Seeds are wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**veronica:** Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin vera 'truth' and iconica 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

**haastii:** Honours the New Zealand geologist and botanist Sir Julius von Haast (1822-87)

## ETYMOLOGY NOTE

Honours the New Zealand geologist and botanist Sir Julius von Haast (1822-87), who *first* collected the species and whose specimen is the type.

## ATTRIBUTION

Description adapted by M. Ward from Bayly & Kellow (2006).

## REFERENCES AND FURTHER READING

- Bayly, M.J., Kellow, A.V. 2006. An illustrated guide to New Zealand Hebes. Wellington, N.Z.: Te Papa press pg. 120.
- Kellow, A. V., Bayly, M. J., Mitchell, K. A., Markham, K. R. and Brownsey, P. J. 2003. A taxonomic revision of *Hebe* informal group "Connatae" (Plantaginaceae), based on morphology and flavonoid chemistry. *New Zealand Journal of Botany* 41: 613-35.
- Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## CITATION

Please cite as: Ward, M.D. (Year at time of access): *Veronica haastii* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/veronica-haastii/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-haastii/>

# Veronica epacridea

## COMMON NAME

Hebe

## SYNONYMS

*Hebe epacridea* (Hook.f.) Cockayne et Allan nom. superf., nom. illeg.,  
*Leonohebe epacridea* (Hook.f.) Heads, *Hebe epacridea* (Hook.f.)  
Andersen

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica epacridea* Hook.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

HEBEPa

## CHROMOSOME NUMBER

2n = 42

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Low growing shrub with erect twigs bearing pairs of small curved reddish green or green thick fleshy rounded leaves that hardly narrow to a broad leaf stalk that touch those of the opposing leaf inhabiting South Island mountains. Dead leaves persist at base of twigs. Leaves to 9mm long.

## DISTRIBUTION

South Island mountains, chiefly on or east of the Main Divide, from the Devil Range, North-West Nelson, to the Eyre and Livingstone Mountains, Southland.

## HABITAT

Open alpine areas on rock debris or scree. Together with *Veronica birleyi* and *Ranunculus grahamii*, it grows at the highest altitudes known for any vascular plant in New Zealand (approximately 2900 m a.s.l in the Malte Brun Range, Aoraki/Mt Cook National Park).



At Lake Lyndon, November. Photographer: John Smith-Dodsworth



Rachael Range. Photographer: Gillian Crowcroft

## FEATURES

Spreading low shrub (sometimes more or less mat-like) to 0.4 m tall. Branches decumbent or ascending, old stems brown; branchlets green or purplish, puberulent to pubescent or glabrous (rarely), hairs bifarious (usually) or uniform; internodes 1-3 (-4.5) mm; leaves not readily abscising, persistent along the stem for some distance. Leaf bud tightly surrounded by recently diverged leaves. Leaves decussate, connate, usually patent to recurved or erect to erecto-patent; lamina broadly oblong or ovate or elliptic, rigid, somewhat concave or flat (plants from Otago or Aoraki/Mount Cook National Park lack thickened margins), (2.5-) 4-8 (-9) x 2.5-5.5 (-7) mm: apex obtuse or subacute; midrib thickened and evident below (usually forming a prominent keel, except on plants without a thickened leaf margin); margin not cartilaginous, conspicuously thickened (the outward manifestation of a rigid intramarginal vein) or not thickened (on plants that lack a marginal vein), commonly ciliate (toward base and, on one plant from Roys Peak, along entire margin) or minutely papillate or glabrous, sometimes tinged red, entire (usually) or minutely crenulate (rarely) or shallowly toothed (seen on one plant from Otago only); upper surface dark to light green, dull, with many stomata, glabrous; lower surface green, hairy toward base (along connate portion). Inflorescences with 2-8 flowers (per spike), terminal and lateral (arranged as spikes in the axils of little-altered leaves, forming a compact terminal flowering head), unbranched, (0.5-) 0.8-2.6 cm (whole flowering head). Bracts opposite and decussate or lowermost pair opposite, then subopposite or alternate above, connate, ovate or deltoid, obtuse or subacute or acuminate, sometimes hairy outside. Flowers hermaphrodite or female (on different plants). Pedicels absent. Calyx 3.4-5.8 mm; lobes oblong or ovate or elliptic or lanceolate, obtuse or subacute or acuminate. Corolla tube glabrous; tube of hermaphrodite flowers 3.8- 4.8 (-5.4) x 1.6-2.2 mm, cylindric and contracted at base, equalling or longer than calyx; tube of female flowers 2.4-4 x 1.3-1.9 mm, cylindric or funnelform, shorter than (only slightly) or equalling calyx; lobes white at anthesis, elliptic or ovate or obovate (narrowly), obtuse or subacute, suberect to recurved, shorter than corolla tube. Stamen filaments remaining erect, 0.1-1.2 mm (approximately 0.8-1.2 mm for stamens of hermaphrodite flowers, 0.1-0.4 mm for staminodes of female flowers); anthers yellow or pink to purple, 1.2-2.1 mm; sterile anthers of female flowers pink, 0.8-1.1 mm. Ovary sometimes hairy, 0.8-1.4 mm, apex (in septum view) obtuse or slightly emarginate; ovules 8-18 per locule, in 1-2 layers; style 2.5- 6(-7) mm (generally longer in hermaphrodite flowers than in female flowers), rarely hairy (especially toward base); stigma more prominent in female flowers. Capsules subacute, 2.7-4.5 x 1.5-2.6 mm, sometimes hairy, septicial split extending  $\frac{3}{4}$ -way to base or completely to base, loculicidal split extending  $\frac{1}{4}$ - (mostly) to  $\frac{1}{2}$ -way to base. Seeds weakly flattened, ellipsoid or ovoid or obovoid, straw-yellow, 0.8-1 (-1.1) x 0.5-0.7 mm, micropylar rim 0.2-0.3 mm.

## FLOWERING

December - February (-April)

## FLOWER COLOURS

White

## FRUITING

December - April (-September)

## LIFE CYCLE

Seeds are wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**veronica:** Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin vera 'truth' and iconica 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

**epacridea:** Resembling plants in the family Epacridaceae (a Southern heath family now included in Ericaceae)

## TAXONOMIC NOTES

A widespread and somewhat variable species, distinguished from other members of "Connatae" (Bayly & Kellow, 2006) by: its small rigid leaves, which do not narrow towards the base; retained dead leaves along the length of the stem; and bracts and calyx lobes fringed by long hairs. Leaves are usually strongly keeled with a thickened margin, both characters the result of very thick, woody leaf veins. Plants from Aoraki/Mt Cook National Park and Otago often lack these leaf characters, causing frequent confusion in their identification. Variation is discussed in detail by Kellow et al. (2003).



## ATTRIBUTION

Description adapted by M. Ward from Bayly & Kellow (2006).

## REFERENCES AND FURTHER READING

- Bayly, M.J., Kellow, A.V. 2006. An illustrated guide to New Zealand Hebes. Wellington, N.Z.: Te Papa press pg. 114
- Kellow, A. V., Bayly, M. J., Mitchell, K. A., Markham, K. R. and Brownsey, P. J. 2003. A taxonomic revision of *Hebe* informal group "Connatae" (Plantaginaceae), based on morphology and flavonoid chemistry. *New Zealand Journal of Botany* 41: 613-35.
- Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## CITATION

Please cite as: Ward, M.D. (Year at time of access): *Veronica epacridea* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/veronica-epacridea/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-epacridea/>

# Haastia sinclairii var. sinclairii

## COMMON NAME

Sinclair's Haastia

## SYNONYMS

*Haastia sinclairii* Hook.f.

## FAMILY

Asteraceae

## AUTHORITY

*Haastia sinclairii* Hook.f. var. *sinclairii*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## CHROMOSOME NUMBER

2n = 60

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island: Marlborough to Otago (mainly east of divide)

## HABITAT

Subalpine to alpine screes

## FEATURES

Plant sparingly to much branched, decumbent to suberect. Branchlets up to c. 300 mm long, 4-6 mm. diameter. Leaves more or less patent, up to 35 × 15 mm, oblong-obovate, subacute to rounded at apex, densely clad in whitish subappressed tomentum, except on upper surface of appressed base, upper part slightly thickened, somewhat rugose; veins 5-10, anastomosing above. Capitula c.30 mm diameter; receptacle 5-6 mm diameter. Involucral bracts narrow-oblancheolate, subacuminate, pilose on lower surface, c.10 mm long. Achenes c. 2 mm long, narrow-linear. Pappus up to 10 mm long.

## SIMILAR TAXA

Distinguished from *Haastia pulvinaris* by the less compact, openly branched, distinctly leafy growth habit. *Haastia sinclairii* differs from *H. recurva* by the spreading and not recurved, rather than strongly recurved leaves, and appressed to subappressed rather than floccose leaf tomentum. *Haastia sinclairii* var. *sinclairii* is easily distinguished from var. *fulvida* by the greyish-white to white rather than fulvous-yellow to buff coloured tomentum.

## FLOWERING

November - March



Mt Peel, Nelson, January. Photographer: John Smith-Dodsworth



Mt Peel, Kahurangi N.P. Photographer: Gillian Crowcroft

## FLOWER COLOURS

Orange, Yellow

## FRUITING

December - April

## LIFE CYCLE

Pappate cypselae are dispersed by wind (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild

## ETYMOLOGY

**haastia**: After Haast

**sinclairii**: After Sinclair (c. 1796–1861). Colonial Secretary and naturalist.

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Description adapted from Allan (1961)

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I, Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/haastia-sinclairii-var-sinclairii/>

# Veronica lycopodioides

## COMMON NAME

Whipcord hebe

## SYNONYMS

*Hebe lycopodioides* (Hook.f.) Andersen, *Hebe lycopodioides* (Hook.f.) Cockayne et Allan nom. superf., nom. illeg., *Leonohebe lycopodioides* (Hook.f.) Heads var. *lycopodioides*, *Leonohebe lycopodioides* var. *patula* (G.Simpson et J.S.Thomson) Heads, *Hebe lycopodioides* subsp. *patula* (G.Simpson & J.S.Thomson) Wagstaff et Wardle, *Hebe lycopodioides* var. *patula* G.Simpson et J.S.Thomson

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica lycopodioides* Hook.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

HEBLYC

## CHROMOSOME NUMBER

2n = 40

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

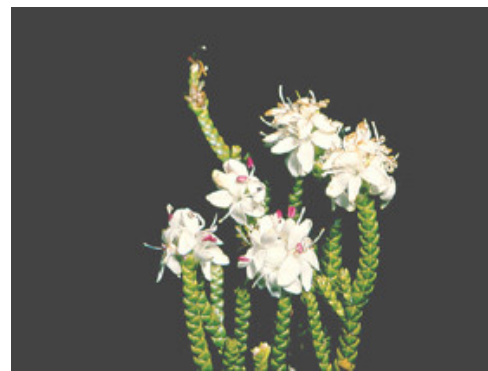
Spreading low growing shrub bearing yellowish-green erect narrow short scaly twigs inhabiting South Island mountains. Twigs 2.3-3.3mm wide. Leaves scale-like, striped, closely packed, tip pointed, clasping stem, sometimes with a hairy margin (lens needed). Flowers white, in groups of 6-16 at tips of twigs.

## DISTRIBUTION

Mountains of South Island, chiefly on or east of the Main Divide, from the Bryant Range in the north to the Kakanui Mountains in the south.

## HABITAT

Grows in penalpine grassland and subalpine shrubland.



Avalanche peak, January. Photographer: John Smith-Dodsworth



Avalanche peak, January. Photographer: John Smith-Dodsworth

## FEATURES

Spreading low or bushy shrub to 1 m tall, of whipcord form. Branches ascending or decumbent or erect; internodes (0.55-) 0.8-1.3 (-1.55) mm; branchlets, including leaves, (1.8-) 2.3-3.3 (-4.2) mm wide; connate leaf bases hairy; nodal joint distinct, usually hidden (but sometimes barely) or exposed; leaves not readily abscising, persistent along the stem for some distance. Leaves connate, appressed; lamina not thickened near the apex; apex mucronate (usually) to subacute; margin ciliate or ciliolate; lower surface dark green to yellowish-green, with prominent shallow veins that give a ribbed or striped appearance (at least faintly), dull to slightly glossy. Juvenile leaves crenate to pinnatifid, ciliate (near base and on lower surface). Reversion leaves entire or incised to pinnatifid, glabrous. Inflorescences with (4-) 6-16 (-20) flowers, terminal, unbranched, (0.35-) 0.5-1.6 (-1.9) cm; rachis hairy (with long, white, tangled hairs). Bracts opposite and decussate, connate, broadly deltoid, acuminate to subacute. Flowers hermaphrodite. Calyx 2.8-3.5 mm, 4-5-lobed (5th lobe small, posterior); lobes lanceolate or elliptic or oblong, obtuse to acute, with mixed glandular and eglandular cilia (glandular hairs usually obscured by long eglandular hairs). Corolla tube hairy inside, 2.5-3.2 x 1.1-1.3 mm, cylindrical, longer than or approximately equalling calyx; lobes white at anthesis, elliptic or ovate, obtuse (posterior sometimes emarginate), suberect to patent, shorter to longer than corolla tube. Stamen filaments 2.5-3.6 mm; anthers magenta, approximately 1-1.3 mm. Ovary 0.7-0.8 mm, apex (in septum view) didymous; ovules approximately 13-16 per locule, marginal on a flattened placenta (but sometimes recurved and appearing scattered), in 1-2 layers; style 2.5-7 mm. Capsules obtuse, (1.7-) 2.2-3.4 x (1.3-) 1.8-2.4 mm, loculicidal split extending  $\frac{1}{4}$ - $\frac{1}{2}$ -way to base. Seeds flattened, ellipsoid, more or less finely papillate, pale brown, 0.9-1.5 x approximately 0.7 mm, micropylar rim approximately 0.2 mm.

## SIMILAR TAXA

Similar to *V. poppelwellii*, from which it is distinguished by its strongly mucronate, acute or apiculate leaf apices.

## FLOWERING

(November-) December-February (-April)

## FLOWER COLOURS

White

## FRUITING

January-April (-December)

## LIFE CYCLE

Seeds are wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**veronica:** Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin *vera* 'truth' and *iconica* 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

**lycopodioides:** Resembling a club moss, from the genus *Lycopodium* and *-oides* a Greek suffix which means 'resembling'.

## TAXONOMIC NOTES

Plants from near Lewis Pass were included in *var. patula* (Simpson & Thomson 1943; Ashwin, in Allan 1961) or *subsp. patula* (Wagstaff & Wardle 1999), on the basis of their less mucronate leaves, often slender branchlets and usually low-growing habit. Despite obvious geographic trends in these characters, specimens cannot be separated into clear-cut morphological groups, and no infraspecific taxa are recognised here.

Historical specimens of H. J. Matthews (WELT I 7415, 17420; AK 8215, 8216) suggest the species may also occur in the Greenstone Valley and Humboldt Mountains, western side of Lake Wakatipu, but these localities have not been substantiated by recent collections (and at least some of Matthews specimens are based on cultivated plants, and there might have been confusion regarding original provenance).

## ATTRIBUTION

Description adapted by M. Ward from Bayly & Kellow (2006).

## REFERENCES AND FURTHER READING

- Allan, H. H. 1961. *Flora of New Zealand. Vol. 1*. Wellington: Government Printer.
- Bayly, M.J., Kellow, A.V. 2006. An illustrated guide to New Zealand Hebes. Wellington, N.Z.: Te Papa press pg. 100.
- Simpson, G. and Thomson, J. S. 1943. Notes on some New Zealand plants and descriptions of new species. *Transactions of the Royal Society of New Zealand* 73: 155- 71.
- Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309
- Wagstaff, S. J. and Wardle, P. 1999. Whipcord hebes - systematics, distribution, ecology and evolution. *New Zealand Journal of Botany* 37: 17-39.

## CITATION

Please cite as: Ward, M.D. (Year at time of access): *Veronica lycopodioides* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/veronica-lycopodioides/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-lycopodioides/>



# Gingidia decipiens

## SYNONYMS

*Aciphylla decipiens* Benth. et Hook.f., *Ligusticum decipiens* Kirk, *Angelica decipiens* Hook.f.; *Ligusticum petraeum* Cheeseman, *Anisotome petraea* (Cheeseman) Cheeseman, *Gingidium decipiens* (Hook.f.) J.W.Dawson

## FAMILY

Apiaceae

## AUTHORITY

*Gingidia decipiens* (Hook.f.) J.W.Dawson

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

GINDEC

## CHROMOSOME NUMBER

2n = 22

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, mainly westerly from Nelson to Fiordland

## HABITAT

Subalpine to alpine herbfield (up to 1600 m a.s.l.). Rupestral within rock crevices, ledges and within talus slopes and debris slides. Usually found on limestone, marble or granite, or base-rich facies of greywacke.



Birch Hill stream, Mt Cook. February.  
Photographer: John Smith-Dodsworth



Countess Range. Photographer: John Barkla

## FEATURES

Stout yellow-green to dark green or glaucescent perennial from compact tufts up to 200 mm wide. Bases surrounded by persistent dead leaf remnants. Plants not rhizomatous. Petioles 10-80 x 0.75-1.5 mm, sheaths 6-20 x 3-7 mm. Leaves once-pinnate, rarely 2-pinnate, sub-fleshy, 40-180 x 5-40 mm yellow-green, dark green to glaucescent; leaflets 5-10 pairs, these 4-24 x 3-16 mm, sessile or shortly petioluled with petiolules up to 5 mm long; mostly pinnatifid or pinnate, rare simple; if pinnatifid or pinnate with two pairs of segments; segments not overlapping, stomata equally abundant on both surfaces. Inflorescences 80-200 mm long with axes 0.75-2.0 mm diameter; compound with umbels 1-3 per inflorescence; simple umbels 5-10 per compound umbel; bracts free; flowers 8-15 per simple umbel; styles 1.5-3.0 mm long. Mericarps (excluding style) 3.2-6.0 mm long, dull or glossy, finely bullate on wings, dark yellow, brown or tinged purple, vittae dark brown, dark red-brown or dark purple-brown; ovate-oblong or ovate; apex rounded or narrowed to 2-3 lanceolate to ovate-triangular calyx teeth and thin twisted style remnant; surface broadly convex with 5 equal ribs, the 2 commissural broadly and evenly winged, or with wings broadening toward base.

## SIMILAR TAXA

Distinguished from all other New Zealand species of *Gingidia* by the usually green to yellow green rather than glaucous leaflets which are < 15 mm long, in 5-10 pairs, mostly pinnatifid to pinnate (rarely simple), with the lower leaflets sessile or on short petiolules up to 5 mm long, usually truncate or obtuse at base. Simple leaflets usually bear 7 or more teeth, while pinnatifid leaflets have 5 or less teeth per proximal segment. More likely to be confused with *Anisotome* Hook.f. from which it is best distinguished by leaflet teeth which are not produced into hairs or bristles, and the obvious aniseed smell of the leaves when crushed.

## FLOWERING

October - April

## FLOWER COLOURS

Brown, Yellow

## FRUITING

November - June

## LIFE CYCLE

Winged mericarps are dispersed by wind (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from fresh seed. An excellent and attractive rockery plant. Ideal in a pot. Prefers free draining moist soils. Benefits from regular applications of lime.

## ETYMOLOGY

**gingidia**: A Syrian carrot

**decipiens**: Deceptive

## ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (1 February 2009). Description adapted from Dawson (1974)

## REFERENCES AND FURTHER READING

Dawson, J.W. 1974: Validation of *Gingidia* (Umbelliferae). *Kew Bulletin* 29: 476-476.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Gingidia decipiens* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/gingidia-decipiens/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gingidia-decipiens/>

# Veronica pinguifolia

## COMMON NAME

Hebe

## SYNONYMS

*Hebe pinguifolia* (Hook.f.) Cockayne et Allan

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica pinguifolia* Hook.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

HEBPIN

## CHROMOSOME NUMBER

2n = 80

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Low growing bushy shrub bearing pairs of thick blue-green strongly dished and often red-edged oval leaves on an erect reddish stem. Leaves 7-16mm long, variable in width. Leaf bud without gap at base. Flowers white, in a spike to 2cm long towards the tip of twigs.

## DISTRIBUTION

South Island - Mountains east of the Main Divide, from the Bryant Range to the Kakanui Mountains

## HABITAT

Open alpine areas, on rocks and debris slopes, sometimes in grassland.



L. Lyndon, November. Photographer: John Smith-Dodsworth



L. Lyndon, November. Photographer: John Smith-Dodsworth

## FEATURES

Spreading low shrub (openly branched, or compact) to 0.4 (-0.8) m tall. Branches decumbent or spreading or erect, old stems dark brown or grey; branchlets green (tinged maroon, especially at nodes) or red-brown, puberulent, hairs bifarious; internodes (0.5-) 1-7 (-10) mm; leaf decurrencies evident. Leaf bud distinct; sinus absent (usually), or small and acute to rounded. Leaves erect or erecto-patent; lamina lanceolate (often broadly) to ovate or obovate, fleshy, concave, (3-) 7-16 (-22) x (2-) 4-9 (-12) mm; apex rounded or sometimes subacute; midrib very slightly thickened below; margin usually minutely papillate and rarely glandular-ciliate (toward leaf base), often tinged red; upper surface glaucous (usually) or glaucescent, with many stomata, glabrous; lower surface glaucous (usually) or glaucescent. Inflorescences with (4-) 12-22 flowers, lateral, unbranched, 1-2.8 (-3.4) cm, about equal to or longer than subtending leaves; peduncle 0.3-1.5 (-2.1) cm; rachis 0.3-1 (-1.5) cm. Bracts opposite and decussate (or apparently so) or lowermost pair opposite, then subopposite or alternate above, ovate (often narrowly) or deltoid, subacute. Flowers hermaphrodite or female (on different plants). Pedicels absent or if evident then always shorter than bracts, 0-0.8 mm. Calyx (2-) 2.7- 3.2 (-4) mm; lobes elliptic or oblong or ovate, subacute to obtuse. Corolla tube glabrous; tube of hermaphrodite flowers 2-3 x approximately 1-1.5 mm, cylindrical or narrowly funnelform, approximately equalling calyx; tube of female flowers 2-2.5 x approximately 1.5-1.8 mm, cylindrical or narrowly funnelform, approximately equalling calyx; lobes white at anthesis, ovate or lanceolate or elliptic, obtuse, suberect to recurved, longer than corolla tube. Stamen filaments 4.5-5 mm; anthers magenta, 2.1-2.3 mm; sterile anthers of female flowers magenta or buff, 1.4-1.6 mm. Ovary ovoid or globose, hairy, 0.5-1.1 mm, apex (in septum view) obtuse or slightly didymous; ovules approximately 8-13 per locule, in 1 layer (but sometimes a few more or less overlapping); style (4-) 5-7.5 mm, hairy. Capsules obtuse or truncate, 3-4.5 x 2.5-3.2 mm, usually hairy, loculicidal split extending  $\frac{1}{4}$ -way to base. Seeds flattened, ellipsoid to oblong, more or less smooth, brown (sometimes pale), 0.9-1.7 x 0.6-1.1 mm, micropylar rim 0.3-0.6 mm.

## SIMILAR TAXA

A variable species, distinguished from most others by the combination of the shape and size of the glaucous leaves, glabrous leaf margins, sessile flowers, and the length of bracts relative to calyces. The limits of the species are not well defined, and differences from *V. buchananii* (see Taxonomic Notes below) are problematic. It has sometimes been confused with *V. baylyi* (see Taxonomic Notes below), and specimens are sometimes misidentified as *V. decumbens* and vice versa (see notes under that species).

No single character has been found to distinguish *V. pinguifolia* and *V. buchananii* consistently, and they are generally distinguished here on combinations of characters. *V. pinguifolia* plants are often taller (although sprawling, they do not tend to form dense mats) and usually have more distinct leaf buds, these not closely surrounded by recently diverged leaf pairs (except in some Marlborough specimens). They mostly have larger leaves (although shape is variable) that are not keeled when fresh (although they may appear so when dry, as the fleshy lamina shrinks away from the midrib). They may have more slender, less corky stems, and bracts and calyces that are usually shortly ciliolate with glandular hairs (but sometimes long-ciliate with eglandular hairs). In contrast, *V. buchananii* tends to be more mat-forming (except for "var. *exigua*-like" plants) and lower growing, with leaf buds closely surrounded by recently diverged leaves. It often has smaller leaves (although shape is variable) that are more keeled. It also often has thicker, more corky stems, and has calyces and bracts that often have longer cilia.

## FLOWERING

December-February (-April)

## FLOWER COLOURS

Cream, White

## FRUITING

January-April

## LIFE CYCLE

Seeds are wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**veronica:** Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin *vera* 'truth' and *iconica* 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

**pinguifolia:** From the Latin *pinguis* 'fat, plump' and *folium* 'leaf', in reference to the thickness of the leaves

## TAXONOMIC NOTES

Some specimens of *V. pinguifolia* / *V. buchananii* have not been identified with certainty, and the distribution maps for both species are based only on specimens about whose identities we are reasonably confident. As defined here, there is some geographic overlap between the two species. Further investigation of their variation, relationships and circumscriptions would be worthwhile.

Included here in *V. pinguifolia* are specimens from the north of the species' range (e.g. Mount Starveall, Travers Range, St Arnaud Range, Hodder Valley, Black Birch Range) that sometimes have a small but distinct sinus in the leaf bud (a feature seen only rarely on plants from other areas). In this respect, these specimens resemble *V. baylyi*, a name that has sometimes been applied to them. They can be distinguished from that species by usually red-edged leaves that are paler green (under a glaucous bloom), larger, strictly opposite bracts, and blunt and usually hairy capsules. Some of these northern specimens (particularly those from Black Birch Range) are quite small-leaved and, in this respect, may also resemble *V. buchananii*. However, given their geographic distance from that species, the resemblance is probably coincidental, and a close relationship does not seem likely.

Both diploid and tetraploid chromosome numbers are recorded in *V. pinguifolia*, but chromosome variation has not been correlated with variation in morphology. Some vouchers for chromosome counts (diploid from Mount Peel, Canterbury; tetraploid from Mount Somers and Mount Winterslow) have been identified here as *V. cf. pinguifolia*. These specimens are cultivated and sterile and cannot be identified with certainty. *V. pinguifolia* does, on the basis of other specimens, occur on Mount Peel and Mount Somers but is not otherwise known from Mount Winterslow.

## ATTRIBUTION

Description adapted by M. Ward from Bayly & Kellow (2006).

## REFERENCES AND FURTHER READING

Bayly, M.J., Kellow, A.V. 2006. An illustrated guide to New Zealand Hebes. Wellington, N.Z.: Te Papa press pg. 136-138.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## CITATION

Please cite as: Ward, M.D. (Year at time of access): *Veronica pinguifolia* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/veronica-pinguifolia/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-pinguifolia/>



# Kelleria dieffenbachii

## SYNONYMS

*Drapetes dieffenbachii* Hook., *Drapetes macrantha* Colenso

## FAMILY

Thymelaeaceae

## AUTHORITY

*Kelleria dieffenbachii* (Hook.) Endl.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

KELDIE

## CHROMOSOME NUMBER

2n = 18

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## FLOWER COLOURS

White

## LIFE CYCLE

Achenes are possibly wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**dieffenbachii**: Named after Dr. Ernst Dieffenbach, 19th century German naturalist

## REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/kelleria-dieffenbachii/>



Mt Te Moehau, November. Photographer: John Smith-Dodsworth



Habitat, Mid Dome, Southland. Photographer: Jesse Bythell



# Kelleria laxa

## SYNONYMS

*Drapetes dieffenbachii* var. *laxa* Cheeseman, *Drapetes laxus* (Cheeseman) Allan

## FAMILY

Thymelaeaceae

## AUTHORITY

*Kelleria laxa* (Cheeseman) Heads

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

KELLAX

## CHROMOSOME NUMBER

2n = 18

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand, North and South Islands

## FLOWER COLOURS

White

## ETYMOLOGY

**laxa**: Slack, loose

## Taxonomic Notes

*Kelleria laxa* had been treated as indigenous by Heads (1990) because he regarded plants found in Victoria, Australia as conspecific. Marks & Walsh (2014) revisited the status of the Australian *K. laxa* plants and showed that they comprised another species endemic to Victoria which they named *K. bogongensis* Marks.

## REFERENCES AND FURTHER READING

Heads, M.J. 1990: A revision of the genera *Kelleria* and *Drapetes* (Thymelaeaceae). *Australian Systematic Botany* 3: 595-652.

Marks, C.; Walsh, N. 2014: Taxonomic reassessment of *Kelleria* (Thymelaeaceae) in Australia and recognition of a new endemic Victorian species. *Muelleria* 33: 3-11

## MORE INFORMATION



Arthur tablelands, January. Photographer: John Smith-Dodsworth

<https://www.nzpcn.org.nz/flora/species/kelleria-laxa/>

# Kelleria paludosa

## FAMILY

Thymelaeaceae

## AUTHORITY

Kelleria paludosa Heads

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

KELPAL

## CHROMOSOME NUMBER

2n = 18

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## FLOWER COLOURS

White

## LIFE CYCLE

Achenes are possibly wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**paludosa**: Of the swamps

## REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/kelleria-paludosa/>



Rock & Pillar range, February. Photographer: John Smith-Dodsworth



Old Woman Range. Photographer: John Barkla

# Kelleria villosa var. villosa

## FAMILY

Thymelaeaceae

## AUTHORITY

*Kelleria villosa* Berggr. var. *villosa*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## FLOWER COLOURS

White

## LIFE CYCLE

Achenes are possibly wind dispersed (Thorsen et al., 2009).

## ETYMOLOGY

**villosa**: From Latin (*villus*) meaning shaggy or hairy.

## REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/kelleria-villosa-var-villosa/>



Hawkdun Range. Photographer: John Barkla



*Kelleria villosa* var. *villosa*. Photographer: Dave Toole

# Veronica cheesemanii subsp. cheesemanii

## COMMON NAME

Cheesemans Parahebe, Cheesemans Speedwell

## SYNONYMS

*Parahebe cheesemanii* (Benth.) W.R.B.Oliv., *Parahebe cheesemanii* (Benth.) W.R.B.Oliv. subsp. *cheesemanii*

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica cheesemanii* Benth. subsp. *cheesemanii*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## CHROMOSOME NUMBER

2n = 42

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand. South Island (North-West Nelson, Richmond Range, Raglan Range, and Nelson Lakes National Park).

## HABITAT

Alpine. A species of fine-grained, stable screes and their associated grit soils.



Mt Peel, Nelson, January. Photographer: John Smith-Dodsworth

## FEATURES

Cushion-forming subshrub, 10-40 mm tall. Stem and branchlets brown. Branches prostrate to ascending. Vegetative internodes 1-12 mm long. Stem pubescence uniform, eglandular pubescent. Leaves erect to erecto-patent or recurved (in distal portion). Lamina ovate, deltoid, spathulate, or rhomboid, 2-5 × 2-3 mm. Upper surface of leaves dull bronze green or dark green. Under surface of leaves dull bronze green or dark green. Leaf hairs sparse, numerous or absent, or unicellular eglandular, uniseriate (0.5-1.0 mm long on petioles). Apex subacute to obtuse. Base cuneate. Margin minutely papillate or denticulate, pinnatifid, to bipinnatifid on basal lobes. Marginal teeth or lobes in 2-5 pairs. Petiole 3-6 mm long. Inflorescence 1-2(-3)-flowered, 2-10 mm long at fruiting. Indumentum of peduncle, rachis, and pedicels dense. Peduncle 0-20 mm long, eglandular-pubescent. Rachis 0-20 mm long, eglandular-pubescent. Bracts paired, opposite, obtuse or subacute, eglandular-hairy above and eglandular-hairy below, spathulate. Bract margins shallowly to deeply lobed. Pedicels patent at anthesis, straight at fruiting, 0-2 mm long, eglandular-pubescent. Flowers: Calyx 4(-5)-lobed, 4-7 mm long, lobes oblanceolate, oblong, spathulate, subacute to obtuse. Calyx hairs on both abaxial and adaxial surfaces, eglandular. Calyx lobe margins pinnatifid. Corolla white at anthesis. Nectar guides absent. Corolla throat same colour as lobes. Corolla 4-7 mm diameter. Corolla tube 3.5-7.0 × 1.5-2.0 mm, glabrous or shortly hairy outside. Corolla lobes glabrous or pubescent below. Posterior corolla lobe circular, elliptic or deltoid, obtuse, emarginate or divided in two, 2-3 × 2-4 mm. Lateral corolla lobes circular or elliptic, obtuse, flat, not enfolding stamens, 2-4 × 2-4 mm. Anterior corolla lobe elliptic, obtuse, 2.0-3.0 × 1.5-2.5 mm. Stamen filaments white, 1.5-2.0 mm long, not narrowed at base. Anthers pink to magenta, 1.0-1.5 mm long. Nectarial disc glabrous. Ovary ovoid &/or globose, obtuse, eglandular hairy, 1.0-1.5 mm long. Style 1.5-2.5 mm long. Capsules strongly flattened, emarginate to didymous, 3-4 × 3-4 mm, 2-3 mm thick, hairy. Hairs eglandular. Septicidal split of capsule extending 1/3 way to base (split to base in old capsules). Loculicidal split of capsule extending 3/4 way to base or to base. Seeds ellipsoid to obovoid, pale brown to dark brown, 0.6-1.1 × 0.5-0.7 mm.

## SIMILAR TAXA

*Veronica cheesemanii* is allied to *V. spathulata* from which it differs by being endemic to the South Island, by the pinnatifid rather than entire or bluntly toothed calyx lobes; usually solitary (rarely 2-3) rather than 2-8-flowered inflorescences; corolla tube 3.5-7.0 cf. 3.0-4.0 mm long (longer than rather than equal to the lobes); and by the capsule dehiscence being exclusively loculicidal. *Veronica cheesemanii* subsp. *cheesemanii* differs from subsp. *flabellata* by the ovate, deltoid, spathulate or rhomboid, pinnatifid leaves which are lobed 3/4-way or more, and by the petiole hairs which are 0.5-1.0 mm long

## FLOWERING

November - January

## FLOWER COLOURS

Red/Pink, White

## FRUITING

December - April

## PROPAGATION TECHNIQUE

Difficult. Best grown in a rock garden or alpine house in a sunny position with a cool root run.

## ETYMOLOGY

**veronica:** Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin *vera* 'truth' and *iconica* 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

**cheesemanii:** Named after Thomas Frederick Cheeseman (1846 - 15 October 1923) who was a New Zealand botanist and naturalist who, in 1906, produced *The Manual of the New Zealand Flora*.

## WHERE TO BUY

Not Commercially Available

## ATTRIBUTION

Fact Sheet by P.J. de Lange (5 October 2006). Description adapted from Garnock-Jones and Lloyd (2003).



## REFERENCES AND FURTHER READING

Garnock-Jones, P.J.; Lloyd, D.G. 2003: A taxonomic revision of *Parahebe* (Plantaginaceae) in New Zealand. *New Zealand Journal of Botany* 42: 181-232

## CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Veronica cheesemanii* subsp. *cheesemanii* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/veronica-cheesemanii-subsp-cheesemanii/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-cheesemanii-subsp-cheesemanii/>

# Leptinella atrata subsp. atrata

## COMMON NAME

black scree button daisy

## SYNONYMS

*Cotula atrata* Hook.f., *C. atrata* Hook.f. subsp. *atrata*

## FAMILY

Asteraceae

## AUTHORITY

*Leptinella atrata* (Hook.f.) D.G.Lloyd et C.J.Webb subsp. *atrata*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## CHROMOSOME NUMBER

$2n = 52$

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, inland and easterly from North Canterbury to Northern Otago

## HABITAT

Subalpine to alpine (> 1000 m a.s.l.) in open, mobile, sparsely vegetated screes.



Mt Hutt, January. Photographer: John Smith-Dodsworth



St Mary's Range. Photographer: John Barkla

## FEATURES

Fleshy, monoecious, perennial herb producing 1 or more summer green leaf tufts amongst mobile scree. Rhizomes ascending, at or close to rock surface when young, becoming deeply buried with age, up to 10 mm long, thick, very fleshy, pale or pinkish-red, sparsely short-hairy, glabrate; branches often in clusters of up to 4 diverging from a flowering node and the nodes immediately behind, most of these dying in the first season, leaves usually crowded around rhizome apex, sometimes up to 25 mm apart. Roots numerous, fleshy, very long, extensively branching, thick up to 2 mm diameter. leaves 2-pinnatifid, 20-80 x 5-13 mm; blade 15-60 mm long, obovate, coriaceous and fleshy, grey-green tinged with red, especially on the primary and secondary axes, sparsely pilose hairy, midrib not raised on ventral surface; pinnae 8-15 pairs, cut to rachis, proximal pinnae distant, distal ones overlapping, broadly elliptic and divided, reducing to distant oblong simple proximal pinnae; secondary pinnae 0-9 per pinna, equally on distal and proximal sides, cut to midrib of pinna, oblong or obovate, with rounded apices, upturned, occasionally with 1-2 small lobes on either side. Peduncles scarcely longer than leaves, 30-120 mm, stout, fleshy, pilose hairy with 4-10 evenly spaced bracts; lowermost bracts deeply divided, scarcely smaller than leaves, reducing evenly to simple, oblong or shallowly divided uppermost bracts. Capitula 5-13 mm diameter, surface convex; involucre hemispherical; involucral bracts unequally 2-3-seriate, overtopped by mature florets, grey-green tinged pink or red, more or less pilose hairy, outer bracts exceeding florets, thick, pinnatifid with up to 6 pairs of oblong lobes on sides, gradually changing to thinner, simple obovate inner involucral bracts whose margins are finely scarious; receptacle convex; pistillate florets 100-240 in several rows, 3.25-3.75 mm long, straight, very dark red to almost black; corolla 5 times as long as wide, teeth conspicuous, equal and diverging; staminate florets equal in number. Stigmas of pistillate and staminate florets not exerted far beyond corolla mouth, retracting into corolla tube at anthesis. Cypsela 1.8-2.8 x 0.8-1 mm, slightly compressed, pale brown or dark brown, deeply wrinkled when mature

## SIMILAR TAXA

Differs from *L. atrata* subsp. *luteola* (D.G.Lloyd) D.G.Lloyd et C.Webb by the dark red almost black rather than yellow flowers, leaves whose distal pinnae overlap rather than not and whose secondary pinnae are upturned rather than held flat. Differs from *L. dendyi* (Cockayne) D.G.Lloyd et C.Webb by the smaller capitula (up to 13 cf 20 mm), dark red to almost black rather than yellow with red-tipped florets, convex rather than flat receptacle, and monoecious rather than gynodioecious flowers.

## FLOWERING

November - January

## FLOWER COLOURS

Black, Red/Pink

## FRUITING

January - April

## LIFE CYCLE

Papery cypselae are dispersed by wind and possibly attachment (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

## ETYMOLOGY

**leptinella**: From the Greek word leptos (meaning slender, thin or delicate), referring to the ovary

**atrata**: From the Greek ater 'black'

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula atrata* subsp. *atrata*.

## REFERENCES AND FURTHER READING

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Leptinella atrata* subsp. *atrata* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/leptinella-atrata-subsp-atrata/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leptinella-atrata-subsp-atrata/>

# Leptinella dendyi

## COMMON NAME

Dendy's scree button daisy

## SYNONYMS

*Cotula dendyi* Cockayne

## FAMILY

Asteraceae

## AUTHORITY

*Leptinella dendyi* (Cockayne) D.G.Lloyd et C.J.Webb

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## NVS CODE

LEPDEN

## CHROMOSOME NUMBER

2n = 52

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, east of the main divide from Eastern Nelson and Marlborough south to Canterbury.

## HABITAT

Subalpine to alpine (> 1000 m a.s.l.) in open, mobile, sparsely vegetated screes.



Island saddle, December. Photographer: John Smith-Dodsworth



Misery Tarn, Branch River. Photographer: Simon Moore

## FEATURES

Fleshy, gynodioecious, perennial herb producing 1 or more summer green leaf tufts amongst mobile scree. Rhizomes ascending, at or close to rock surface when young, becoming deeply buried with age, up to 10 mm long, thick, very fleshy, pale or pinkish-red, sparsely short-hairy, glabrate; branches often in clusters of up to 4 diverging from a flowering node and the nodes immediately behind, most of these dying in the first season, leaves usually crowded around rhizome apex, sometimes up to 25 mm apart. Roots numerous, fleshy, very long, extensively branching, thick up to 1.5 mm diameter. Leaves 2-pinnatifid, 20-50 x 3-80 mm; blade 10-30 mm long, narrowly obovate, coriaceous and fleshy, grey-green tinged with red, especially on the primary and secondary axes, sparsely pilose hairy, midrib not raised on ventral surface; pinnae 8-12 pairs, cut to rachis, proximal pinnae distant, distal ones overlapping, broadly elliptic and divided, reducing to distant oblong simple proximal pinnae; secondary pinnae 9 per pinna, equally on distal and proximal sides, cut to midrib of pinna, with rounded apices, upturned at an angle to the blade, occasionally with a linear lobe on one or both sides. Peduncles longer than leaves, 30-80 mm, stout, fleshy, pilose hairy with 6-15 evenly spaced bracts; lowermost bracts scarcely smaller than leaves, reducing evenly to simple, oblong or 1-pinnatifid uppermost bracts. Capitula either female, male or perfect in varying proportions within populations. Pistillate capitula up to 20 mm diameter, surface flat; involucre spreading and upturned at margins; involucral bracts numerous, unequally 2-, to multiseriate, grey-green tinged red, more or less pilose hairy, outer bracts exceeding florets, thick, simple and oblong with 1-8 oblong lobes on both sides (scarious margins absent), gradually changing to thinner, simple, obovate inner involucral bracts with finely scarious margins; receptacle more or less flat; florets 200-900 in many rows, 3.25-4.25 mm long, straight, pale yellow with brown corolla teeth, the whole corolla turning brown after anthesis; corolla 4 times as long as wide, teeth conspicuous, equal and diverging; staminate florets < 10 mm diameter; surface convex, involucre hemispherical; florets 120-450. Cypselae 2.9 x 0.7 mm, slightly compressed, golden brown, deeply wrinkled when mature

## SIMILAR TAXA

Differs from *L. atrata* (Hook.f.) D.G.Lloyd et C.Webb subsp. *atrata* and subsp. *luteola* (D.G.Lloyd) D.G.Lloyd et C.Webb by large capitula (20 cf 12-13 mm respectively), flat receptacle, and gynodioecious rather than monoecious flowers. The florets of *L. atrata* subsp. *luteola* are yellow with red tips, while those of *L. dendyi* are yellow with red-brown tips.

## FLOWERING

November - January

## FLOWER COLOURS

Brown, Yellow

## FRUITING

January - April

## LIFE CYCLE

Papery cypselae are dispersed by wind and possibly attachment (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

## ETYMOLOGY

**leptinella**: From the Greek word leptos (meaning slender, thin or delicate), referring to the ovary

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula dendyi*.

## REFERENCES AND FURTHER READING

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309



**CITATION**

Please cite as: de Lange, P.J. (Year at time of access): *Leptinella dendyi* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/leptinella-dendyi/> (Date website was queried)

**MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/leptinella-dendyi/>

# Leptinella pyrethrifolia var. pyrethrifolia

## SYNONYMS

*Cotula pyrethrifolia* Hook.f., *C. pyrethrifolia* Hook.f. var. *pyrethrifolia*

## FAMILY

Asteraceae

## AUTHORITY

*Leptinella pyrethrifolia* (Hook.f.) D.G.Lloyd et C.J.Webb var. *pyrethrifolia*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## NVS CODE

LEPPVP

## CHROMOSOME NUMBER

2n = 156, 208

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. North Island from Ruahine Ranges south. South Island from Marlborough and Nelson to southern Canterbury.

## HABITAT

Subalpine to alpine (600-2000 m a.s.l.), usually along stream and river banks, at the base of talus and scree slopes, or on rocky ridges, or near and growing on rock outcrops



Mt Hutt, December. Photographer: John Smith-Dodsworth



Cultivated plant. Photographer: John Barkla

## FEATURES

Gynodioecious creeping perennial herb forming circular patches up to 1 m wide. Rhizomes on soil surface or intertwined and lying on older, decaying rhizomes, stout, somewhat fleshy 1-3 mm diameter, dark green to purple-red, sparsely pilose hairy, becoming woody and glabrous with age; branches usually clustered with up to 6 radiating from around a flowering node; leaves clustered at apex, sometimes with older leaves up to 30 mm apart. Roots extensive, stout, up to 200 x 1 mm. Leaves 1-pinnatifid, 5-40 x 3-10 mm; blade 4-15 mm long, elliptic, obovate to broadly obovate coriaceous, fleshy, dark green, glabrous midrib not raised on ventral surface; pinnae 1-4 pairs up to 5 mm long, distant, obovate, obtuse; teeth 0(-1) on either side of larger pinnae, cut 1/3-1/2 across pinna, triangular. peduncles longer than leaves, 20-120 mm, dark green to purple-green, with 1-8 evenly spaced, small linear bracts, rarely ebracteate, sparsely pilose. Capitula fragrant, pistillate, staminate or bisexual (on different plants). Pistillate capitula 5-15 mm diameter, surface flat or slightly convex; involucre hemispherical; involucral bracts 20-110, subequally 2- or more seriate, fleshy, oblong, dark green, with a single dark vein evident, glabrous, with wide brown scarious margins; florets 50-200, 2.75-4 mm long, straight, white, cream or lemon-yellow; corolla 2-4 times as long as wide, dentition equal. Staminate capitula 5-18 mm diameter, surface convex; involucre spreading or flat; involucral bracts 10-60; florets 40-300, occasionally with a dark stripe down the broader part of the corolla. Bisexual capitula intermediate, numbers of pistillate and staminate florets varying from plant to plant. Cypselas 2.3 x 1 mm, golden-brown, compressed, biconvex, slightly wrinkled.

## SIMILAR TAXA

Allied to *L. pectinata* (Hook.f.) D.G.Lloyd et C.J.Webb with which it is perhaps most similar to subsp. *willcoxii* (Cheeseman) D.G.Lloyd et C.J.Webb from which it differs by its ecology, overall larger stature, broader, wider leaves, and usually white to cream (sometimes lemon-yellow) capitula. *L. pyrethrifolia* var. *pyrethrifolia* is cytologically distinct having  $2n = 156, 208$  rather than  $2n = 52, 104$  found in *L. pectinata*. *L. pyrethrifolia* var. *linearifolia* (Cheeseman) D.G.Lloyd et C.J.Webb is easily distinguished from var. *pyrethrifolia*, it has linear leaves (rarely with an apical lobing), dark brown seeds, and is confined to ultramafic substrates in the Red Hills, upper Wairau Valley.

## FLOWERING

November - February

## FLOWER COLOURS

Cream, White

## FRUITING

December - April

## PROPAGATION TECHNIQUE

Easy from rooted pieces, like full sun with a damp root run. Excellent in a pot. The large white, cream or pale yellow, sweetly scented capitula are very attractive.

## ETYMOLOGY

**leptinella:** From the Greek word leptos (meaning slender, thin or delicate), referring to the ovary

**pyrethrifolia:** Pyrethrum-leaved

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula pyrethrifolia* var. *pyrethrifolia*

## REFERENCES AND FURTHER READING

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

## CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Leptinella pyrethrifolia* var. *pyrethrifolia* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/leptinella-pyrethrifolia-var-pyrethrifolia/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leptinella-pyrethrifolia-var-pyrethrifolia/>

# Leptinella pectinata subsp. willcoxii

## SYNONYMS

*Cotula willcoxii* Cheeseman, *Cotula pectinata* subsp. *willcoxii* (Cheeseman) D.G.Lloyd, *Cotula monticola* G.Simpson

## FAMILY

Asteraceae

## AUTHORITY

*Leptinella pectinata* subsp. *willcoxii* (Cheeseman) D.G.Lloyd et C.J.Webb

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## NVS CODE

LEPWIL

## CHROMOSOME NUMBER

2n = 104

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, from Mt Cook south and west to northern Fiordland.

## HABITAT

Subalpine to alpine (900-2400 m a.s.l.) usually near streams in seepages, on damp rock faces, bare rock and moist slopes nearly devoid of other vegetation.



Hooker valley, December. Photographer: John Smith-Dodsworth



Mt Aspiring National Park. Photographer: John Barkla

## FEATURES

Monoecious, creeping, glabrous, somewhat lax perennial herb forming diffuse irregular patches. Rhizomes at or near soil surface, stout, up to 2 mm diameter, somewhat wiry, dark, sparsely villous, glabrate to glabrescent; branches usually solitary at flowering nodes. Leaves usually scattered along rhizomes. Short shoots absent. Roots extensive, wiry, much branched, up to 1 mm diameter. Leaves 1-pinnatifid, occasionally simple, 7-10 x 2-10 mm; blade up to 10 mm, broadly elliptic, firmly coriaceous, dark or yellow green, glabrous, midrib not raised on ventral surface; pinnae 1-5 pairs, distant, cut to rachis, flat oblong to obovate, teeth usually absent, occasionally with 1-2 per pinna, these mostly on proximal margin, cut 1/2 across pinna, triangular, obtuse. Peduncles very much > leaves, 10-100 mm, ebracteate or rarely with 1 simply bract, glabrous to sparsely villous. Capitula 4-8 mm diameter; involucre subcampanulate; involucral bracts 12-24, subequally 2- or more seriate, oblong, dark green to purple green, with 1-3 dark veins, with wide brown scarious margins, glabrous to sparsely villous; pistillate flowers 12-200, 2.75 mm long, straight, yellow to yellow-red, often with 1-2 dark stripes along corolla and ovary; corolla much > than wide, dentition equal; staminate florets more numerous than pistillate. Cypsela 2.3 x 1 mm, golden-brown, compressed, biconvex, slightly to deeply wrinkled.

## SIMILAR TAXA

*L. pectinata* subsp. *willcoxii* differs from *L. pectinata* (Hook.f.) D.G.Lloyd et C.J.Webb subsp. *pectinata* by its glabrous rather than glabrate to sparsely hairy rhizomes and leaves, by its broader leaves, bearing usually 5 or less pinnae (cf 5 or more in subsp. *pectinata*), and by the pinna which are broadly oblong to obovate (cf. linear to narrowly obovate). From subsp. *villosa* (G.Simpson) D.G.Lloyd et C.J.Webb subsp. *willcoxii* is easily distinguished by its glabrous rather than usually densely grey-white hairy rhizomes and leaves, and by its broadly elliptic to obovate leaves bearing 5 or less (cf. 5 or more) broadly oblong to obovate rather than linear to narrowly obovate pinna.

## FLOWERING

November - February

## FLOWER COLOURS

Red/Pink, Yellow

## FRUITING

December - May

## PROPAGATION TECHNIQUE

Probably easily grown.

## ETYMOLOGY

**leptinella**: From the Greek word leptos (meaning slender, thin or delicate), referring to the ovary

**pectinata**: Comb-bearing

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula pectinata* subsp. *willcoxii*.

## REFERENCES AND FURTHER READING

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

## CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Leptinella pectinata* subsp. *willcoxii* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/leptinella-pectinata-subsp-willcoxii/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leptinella-pectinata-subsp-willcoxii/>



# Leucogenes grandiceps

## COMMON NAME

South Island edelweiss

## SYNONYMS

*Gnaphalium grandiceps* Hook.f., *Helichrysum grandiceps* (Hook.f.) Kirk

## FAMILY

Asteraceae

## AUTHORITY

*Leucogenes grandiceps* (Hook.f.) Beauverd

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledonous composites

## NVS CODE

LEUGRA

## CHROMOSOME NUMBER

2n = 28

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand: South and Stewart Islands

## HABITAT

Subalpine to alpine. On rock outcrops, cliff faces, boulders within moraines, fell field and other rock strewn ground, either in the open, amongst cushion plants or in light scrub.

## FEATURES

Perennial tomentose herb. Stock rather stout, woody; stems decumbent, woody at base, branches ascending; basal leaves not in subrosettes. Leaves densely to somewhat laxly imbricate, spreading, sometimes recurved, 5-10 × 2-4 mm, often apiculate, 3-5-nerved at base, obovate-cuneate, clad on both surfaces in appressed white to pale buff hairs. Peduncles hardly differentiated from branchlets. Capitula 5-15, congested into dense glomerules 9-15 mm diameter, subtended by up to 15 densely woolly leaves up to 10 mm long, forming a distinct white ray. Involucral bracts linear, acute, c.5 mm long, scarious with basal stiffening. Achenes c.1 mm. long, pappus-hairs 3-4 mm long



Kepler Mountains. Photographer: John Sawyer



Otira valley, January. Photographer: John Smith-Dodsworth



## SIMILAR TAXA

Distinguished from *Leucogenes leontopodium* (Hook.f.) Beauverd by the more widely creeping growth habit; by the basal leaves not crowded into sub-rosettes; by the smaller leaves (5-10 cf. 8-20 mm long) with obtuse (rarely apiculate) rather than acute to subacute leaf apices; and by the leaves of the ray rarely > 10 mm long. Distinguished from *L. neglecta* Molloy and *L. tarahaoa* Molloy by its diploid ( $2n = 28$ ), rather than tetraploid ( $2n = 56$ , *L. neglecta*) or octoploid ( $2n = 112$ ) chromosome number. *Leucogenes neglecta* further differs from *L. grandiceps* by its long thin stems, narrowly elliptic acute leaves and floral bracts, and uniform silvery-blue colour, while *L. tarahaoa* differs by its compact, cushion forming habit, and silvery white leaves.

## FLOWERING

November - March

## FLOWER COLOURS

White, Yellow

## FRUITING

January - April

## LIFE CYCLE

Pappate cypselae are wind dispersed (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from cuttings and fresh seed. Excellent in a pot within an alpine house, and in non-humid climates can be grown in rock gardens. Provided the root stock is kept cool can be grown in most lowland situations.

## ETYMOLOGY

**leucogenes:** White genus

**grandiceps:** Big-headed

## WHERE TO BUY

Occasionally available from specialist native plant nurseries.

## ATTRIBUTION

Description modified from Allan (1961)

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Government Printer, Wellington

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leucogenes-grandiceps/>

# Leucopogon fraseri

## COMMON NAME

Patotara, dwarf mingimingi

## SYNONYMS

*Cyathodes fraseri* (A.Cunn.) Allan, *Cyathodes fraseri* (A.Cunn.) Allan var. *fraseri*, *Leucopogon bellignianus* Raoul, *Leucopogon fraseri* var. *muscosus* G.Simpson, *Leucopogon nesophilus* DC., *Styphelia fraseri* F.Muell., *Styphelia nesophila* (DC.) Sleumer

## FAMILY

Ericaceae

## AUTHORITY

*Leucopogon fraseri* A.Cunn.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

LEUFRA

## CHROMOSOME NUMBER

2n = 16

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Low growing prickly shrub with white tubular flowers and small orange fruit to 15cm tall inhabiting open areas. Leaves 4-9mm long by 1-2mm wide, with a prominent sharp tip and a pale edge, underside striped. Flowers around 5mm long, hairy inside.

## FLOWER COLOURS

White

## LIFE CYCLE

Fleshy drupes are dispersed by frugivory (Thorsen et al., 2009).

## ETYMOLOGY

**leucopogon**: White beard (the petals are hairy)



Mangatepopo, January. Photographer: John Smith-Dodsworth



Mangatepopo, January. Photographer: John Smith-Dodsworth

## REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leucopogon-fraseri/>