



# Hāwea Foreshore Reserve Turfland plants June 2017



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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, threatened mosses, liverworts and fungi.

Funding to develop the website was provided by the New Zealand Government's Terrestrial and Freshwater Biodiversity Information System Programme (TFBIS).

The species information used on the website has come from a variety of sources. The indigenous vascular plant text was written largely by Dr Peter de Lange (former Network Vice President). Peter based the descriptions on a wide range of sources including the Flora of NZ Series (Allan 1961, Moore and Edgar 1970 and Webb et al 1987) as well as numerous other taxonomic treatments. For a full bibliography of information sources see the References at the end of this book.

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 Mike Thorsen, John Barkla, Cathy Jones, Simon Walls, Nick Singers and many others. The threatened fungi text was written by Eric Mackenzie and Peter Buchanan (Landcare Research).

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.

## 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
- Advocacy to raise awareness of the importance of plant life in general and especially New Zealand's status as a Global Centre of Plant Diversity
- Lobbying central and regional government and business to protect indigenous plant life
- Educating people about plant life through the Network website
- Connecting people through 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 small group of botanists that between them have an extensive knowledge of the native plants of New Zealand. This group is chaired by Dr Peter de Lange of the New Zealand Department of Conservation.

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. 2009). The main threat categories used are: Extinct, Critical, Endangered, 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 2009 conservation assessment (see de Lange et al 2009).

More recently other committees have been established to review the status of non-vascular plants but their lists are yet to be published.

# *Acrothamnus colensoi*

## Current Threat Status (2012):

Not Threatened

## Distribution:

Endemic. New Zealand: North and South Islands from about Kaingaroa Plain south.

## Habitat:

Montane to alpine extending to lower altitudes in shrubland, tussock grassland and peat bogs in the southern part of its range

## Features\*:

Dioecious (?gynodioecious) sprawling, prostrate, glaucescent pinkish green to red-brown shrubs forming much-branched to unevenly, sparingly-branched almost lianoid patches, 0.2-0.5 × 1.0-2.0 m. Branches spreading, ascending to erect, weakly ribbed to ± terete, grey-brown, unevenly pubescent but becoming glabrous with age. Leaves alternate, spreading, glabrous, bronze-green, pinkish green, glaucescent to dark red-brown with pale yellow margins, abaxially distinctly 3-5-nerved but veins not or scarcely raised above surface, veins greenish, interveinal grooves white; lamina 5-10 × 1-4 mm, narrow-oblong, oblong, concavo-convex; margins distinctly thickened, ± recurved, initially finely ciliolate, soon glabrous; apex obtuse, apiculate to mucronulate. Inflorescences near ends of branches, terminal, and/or in upper axils; racemose, 2-5-flowered, terminating in a bud-like rudiment. Flowers subtended by a bract and 2 keeled bracteoles; bract pinkish green to red, up to 2.5 mm long, glaucescent, broadly ovate, obtuse, ciliolate; bracteoles similar but smaller and distinctly keeled. Sepals up to 4 mm long, elliptic-oblong to ovate, obtuse, ciliolate, similar but smaller, imbricate with stomata only on the adaxial surface. Flowers seemingly unisexual, 6-8 mm long; corolla tube 4-5 mm long, hairy toward lobes; corolla-lobes 2.8-3.3 mm long, both surfaces copiously covered in hairs in distal half. Anthers emarginate, 0.4-0.6 mm long, apically attached by a short thin filament inserted near base of corolla tube sinus; the filaments ± exerted to almost hidden within tube, 0.3-0.5 mm long. Ovary 4-5-locular, spheriodal, glabrous, 0.5-1.0 × 0.5-0.8 mm wide; style straight, glabrous, 0.8-1.8 mm long; stigma 0.1 mm long usually immersed in tube, rarely partially exerted. Fruit, white, pink, red, dark crimson (rarely almost black), 4-5 mm diameter, globose. Endocarp 2.5-3.5 × 2.2-3.0 mm, pale brown, brown to orange-brown, broadly obovate, broadly ellipsoid to ovoid, indistinctly, longitudinally ridged 5×, surface somewhat granular.

## Flowering:

September - February

## Fruiting:

November - June

## Threats:

Not Threatened

## \*Attribution:

Fact Sheet prepared for the NZPCN by P.J. de Lange (19 November 2014). Description based on Allan (1961), Quinn et al (2005), Webb & Simpson (2001) and observations made from fresh and dried specimens

## References and further reading:

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

Murray, B.G.; de Lange, P.J. 2013: Contributions to a chromosome atlas of the New Zealand flora – 40. Miscellaneous counts for 36 families. *New Zealand Journal of Botany* 51: 31–60.

Quinn, C. J.; Brown, E. A.; Heslewood, M. M.; Crayn, D. M. 2005: Generic concepts in Styphelieae (Ericaceae): the *Cyathodes* group. *Australian Systematic Botany* 18: 439-454.

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.; Simpson, M.J.A. 2001: Seeds of New Zealand Gymnosperms and Dicotyledons. Christchurch, Manuka Press.

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=927](http://nzpcn.org.nz/flora_details.asp?ID=927)



**Caption:** Cass, Canterbury  
**Photographer:** Jane Gosden



**Caption:** Cass, Canterbury  
**Photographer:** Jane Gosden

## *Blechnum penna-marina* subsp. *alpina*

### Common Name(s):

little hard fern, alpine hard fern

### Current Threat Status (2012):

Not Threatened

### Distribution:

Indigenous. New Zealand: North, South, Stewart, Chatham, Antipodes, Auckland, Campbell Islands. Also Macaquarie Island, Australia, South America and several other circum-Antarctic islands.

### Habitat:

Coastal to alpine (mostly montane to alpine in the northern part of range, and scarce north of the Bay of Plenty and the Waikato) in open forest, subalpine scrub, grassland, alpine herbfield, turf (including coastal turf) and in moss field on the shaded sites of rock outcrops.

### Features\*:

Rhizome creeping. Fronds dimorphic, 40–120 × 6–12 mm. Stipe 15–200 mm long, dark red-brown at base, usually becoming stramineous towards lamina; scales somewhat bullate, linear to ovate, entire, red-brown. Lamina lanceolate, pinnate, with 4–34 pairs of pinnae; rachis and costae stramineous; scales mainly on lower surface, small, sparse, acuminate, entire, brown to red-brown; sterile pinnae oblong-obtuse or somewhat triangular, 3.5–8.0 × 2.0–4.2 mm, adnate with broad bases, contiguous; margins entire; basal pinnae shorter, rounder; fertile pinnae linear and somewhat falcate, 3.6–6.8 × 1.0–2.5 mm.

### Flowering:

N.A.

### Fruiting:

N.A.

### Threats:

Not Threatened

### \*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (19 September 2012). Description adapted from Chambers & Farrant (1998)

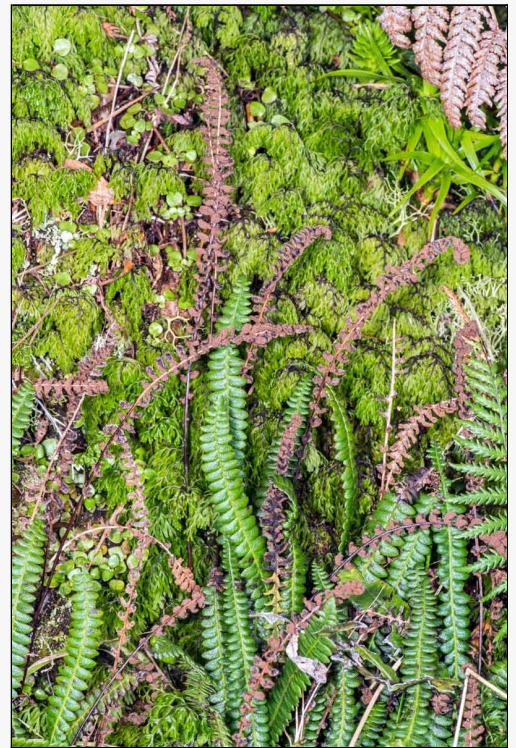
### References and further reading:

Chambers, T.C.; Farrant, P.A. 1998: Blechnaceae. Flora of Australia 48: 359–384. ABRS/CSIRO Australia, Victoria

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.

### For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=2071](http://nzpcn.org.nz/flora_details.asp?ID=2071)



**Caption:** Rangaika, Chatham Island. Jun 2013.

**Photographer:** Jeremy Rolfe



**Caption:** Craigieburn, Canterbury

**Photographer:** Jane Gosden

## *Brachyglottis haastii*

### **Current Threat Status (2012):**

Not Threatened

### **Threats:**

Not Threatened

### **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* 2009 Vol. 11 No. 4 pp. 285-309

### **For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1568](http://nzpcn.org.nz/flora_details.asp?ID=1568)



**Caption:** Ahuriri Valley  
**Photographer:** John Barkla



**Caption:** East Ahuriri  
**Photographer:** John Barkla

## *Celmisia gracilentata*

### **Common Name(s):**

common mountain daisy, pekapeka

### **Current Threat Status (2012):**

Not Threatened

### **Threats:**

Not Threatened

### **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* 2009 Vol. 11 No. 4 pp. 285-309

### **For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1621](http://nzpcn.org.nz/flora_details.asp?ID=1621)



**Caption:** Cass, Canterbury  
**Photographer:** Jane Gosden



**Caption:** Cass, Canterbury  
**Photographer:** Jane Gosden

## *Coprosma petriei*

**Common Name(s):**

turfy Coprosma

**Current Threat Status (2012):**

Not Threatened

**Threats:**

Not Threatened

**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

**For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1727](http://nzpcn.org.nz/flora_details.asp?ID=1727)



**Caption:** Pisa Range, in fruit

**Photographer:** John Barkla



**Caption:** Pisa Range, in fruit

**Photographer:** John Barkla



# *Dichelachne crinita*

**Common Name(s):**

long-hair plume grass

**Current Threat Status (2012):**

Not Threatened

**Distribution:**

Indigenous. Throughout North, South, Stewart, Chatham and Kermadec Islands. Also in Australia and most of the Pacific Islands.

**Habitat:**

Coastal to subalpine. Usually in open ground under light scrub, under light forest cover, in tussock grassland, on clay pans and along roadsides. Also frequently encountered on rock outcrops, in associated talus, on boulderfield and as an urban weed of rough pasture, kerbsides and industrial wasteland.

**Features\*:**

Light green to yellow-green, stout, tall tufted grass. Branching extravaginal. Leaves less than or equal to the erect to somewhat nodding narrow plumed culms. Leaf-sheath light brown, with minute, soft, appressed, retrorse hairs. Ligule 0.5-1.5 mm, membranous, undersides minutely scabrid, more or less truncate, minutely ciliate, occasionally asymmetric. Leaf-blade up to 400 x 1.5-5.0 mm, stiff, flat or slightly inrolled, gradually tapering, strongly ribbed, underside scabrid near apex, upper surface minutely scabrid on margins and ribs. Culm 0.3-1.2 m, internodes glabrous or minutely scaberulous below panicle. Panicle 100-250 mm, erect, spicate, light green to straw-yellow, often tinged with purple, densely branched, close-set, erect branches hidden by spikelets pulled together by entwining awns; rachis, branchlets and pedicels closely short-scabrid; spikelets, numerous, glossy. Glumes very narrow, linear-lanceolate, silvery; lower 4.5-9.0 mm, more or less equal to glume, shortly aristate, upper 5.5-10.0 mm long, equal to or greater than lemma, apex acuminate. Lemma 4.5-8.0 mm long, minutely scabrid, apex scarcely bifid; awn 20-30 mm, light green to purple, inserted 1.5-3.0 mm below lemma apex, column straight, awn more or less falcate and twisted about once. Palea 3-5 mm long, very narrow, keels minutely scabrid near ciliate apex. Callus hairs to 0.7 mm. Rachilla prolongation 0.1 mm long. Lodicules 0.5-0.7 mm long, membranous, elliptic, acute, apically ciliate. Anthers 1-3, 0.7-2.0 mm in opened flowers, 0.2-0.9 mm long in cleistogamous flowers. Seed 2.0-2.5 x 0.3-0.4 mm.

**Flowering:**

September - February

**Fruiting:**

October - July

**Threats:**

Not Threatened

**\*Attribution:**

Description modified from Edgar and Connor (2000)

**References and further reading:**

Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 pp.

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

**For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=2103](http://nzpcn.org.nz/flora_details.asp?ID=2103)



**Caption:** Rangitoto Island  
**Photographer:** John Barkla



**Caption:** Dichelachne crinita  
**Photographer:** John Barkla

## *Dichondra repens*

### Common Name(s):

Mercury Bay weed, Dichondra

### Current Threat Status (2012):

Not Threatened

### Distribution:

Indigenous. Three Kings, North, South, Chatham Islands. Found throughout the world

### Flowering:

September - February

### Fruiting:

November - May

### Threats:

Not Threatened

### 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

### For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=2107](http://nzpcn.org.nz/flora_details.asp?ID=2107)



**Caption:** Lake Kohangapiripiri, Wellington. Oct 2008.

**Photographer:** Jeremy Rolfe



**Caption:** Lake Kohangapiripiri, Wellington. Oct 2008.

**Photographer:** Jeremy Rolfe

## *Euchiton audax*

### **Current Threat Status (2012):**

Not Threatened

### **Threats:**

Not Threatened

### **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

### **For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1869](http://nzpcn.org.nz/flora_details.asp?ID=1869)



**Caption:** Coromandel

**Photographer:** John Smith-Dodsworth



**Caption:** Coromandel

**Photographer:** John Smith-Dodsworth

## *Festuca novae-zelandiae*

### **Common Name(s):**

Fescue tussock, hard tussock

### **Current Threat Status (2012):**

Not Threatened

### **Threats:**

Not Threatened

### **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

### **For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1893](http://nzpcn.org.nz/flora_details.asp?ID=1893)



**Caption:** Long Gully, Wanaka

**Photographer:** John Barkla



**Caption:** Festuca novaezelandiae

**Photographer:** John Smith-Dodsworth

# *Geranium brevicaule*

## Current Threat Status (2012):

Not Threatened

## Distribution:

Indigenous. North, South and Stewart Islands. In the N. Island present south of Auckland. Common elsewhere. Present in Australia in the south-east and Tasmania

## Habitat:

Coastal to subalpine (0-1200 m a.s.l.). In open ground such as short or tall tussock grassland, frost flats, clay pans, freshly deposited alluvium or on rock outcrops.

## Features\*:

Herbs 2.5-15.5 cm tall. Rootstock 3.2-10.5 mm diam., without fusiform roots. Basal leaves in a persistent rosette; lamina 7.8-25.6 × 8.9-31.8 mm, polygonal in outline, cordate (with basal leaf segments downward), palmatifid (divided for 0.53-0.74 of its length), pilose, with appressed, eglandular hairs; segments 5-7, obtriangular, 1.4-4.7 mm at the base; petioles up to 130 mm long, with patent to retrorse, appressed, eglandular hairs 0.3-1.2 mm long; stipules 2.7-8.8 × 0.9-2.5 mm, with scattered eglandular hairs on both surfaces and on the margin. Inflorescence with cymules 1-flowered, solitary; peduncles 0-1.1(-1.6) cm long, with patent to retrorse, eglandular hairs 0.15-1.1 mm long; bracteoles 2-6.6 × 0.6-1.3 mm, linear-lanceolate, with scattered eglandular hairs on both surfaces and on the margin; pedicels 33-430 mm long, with patent to retrorse, eglandular hairs 0.15-1.1 mm long; pedicel not overtopping the subtending leaf. Sepals (3.3-) 4.4-5.7(-7.1) × 1.4-3.1 mm, lanceolate, with scarious margins 0.1-0.2 mm wide, with erect-patent, eglandular hairs 0.3-0.6 mm long on the abaxial side (patent hairs 1-1.7 mm long on the margin), glabrescent adaxially. Petals 2.8-5.5(-6.5) × 1-3.1 mm, entire, without claw, glabrous, rarely with few cilia on the basal margin, deep pink to white. Filaments 1.6-3.0 mm long, yellowish, glabrous on both sides, ciliate on the basal margin, with hairs up to 0.1-0.2 mm long; anthers 0.4-0.7 × 0.2-0.7 mm, yellowish. Nectaries glabrous. Gynoecium 2-3.4 mm long, unknown color. Fruit 8.4-17.6 mm long; mericarps 2.2-3.6 × 1.0-1.7 mm, smooth, with erect-patent, eglandular hairs 0.2-1.1 mm long, brownish; rostrum 5.1-11.7 mm long, without a narrowed apex, with erect-patent, eglandular hairs 0.1-0.6 mm long; stigmatic remains 0.9-1.2(-1.6) mm long, with 5 hairy lobes. Seeds 1.5-2.8 × 0.7-1.4 mm, finely reticulate; hilum 1/6 as long as the perimeter.

## Flowering:

Year round

## Fruiting:

Year round

## Threats:

Not Threatened

## \*Attribution:

Fact Sheet by P.J. de Lange 8 June 2006: Description from Aedo et al. (2005).

## References and further reading:

Aedo, C.; Navarro, C.; Alarcon, M.L. 2005: Taxonomic revision of *Geranium* sections *Andina* and *Chilensis* (Geraniaceae). *Botanical Journal of the Linnean Society* 149(1): 1-68

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

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=1937](http://nzpcn.org.nz/flora_details.asp?ID=1937)



**Caption:** McKerrow Range, Otago  
**Photographer:** Jesse Bythell



**Caption:** McKerrow Range, Otago  
**Photographer:** Jesse Bythell

# *Microtis unifolia*

## Common Name(s):

Onion-leaved orchid, microtis

## Current Threat Status (2012):

Not Threatened

## Distribution:

Indigenous. In New Zealand present on the Kermadec, Three Kings, North, South, Stewart and Chatham Islands. Exact New Zealand distribution unclear due to confusion with an allied, later flowering entity. Present also in Australia, Norfolk Island, New Caledonia, Indonesia, the Philippines, Japan and China.

## Habitat:

Coastal to montane. Widespread in mainly disturbed or successional habitats. Common in urban areas in lawns, verges, roadside banks and cuttings and even amongst moss filled crevices on old buildings.

## Features\*:

Terrestrial, glabrous, colony forming, fleshy, tuberous bright green to dark green perennial herb. Plants at flowering up to 1 m tall. Tubers globose to ovoid. Stem erect, terete, often striated. Leaf solitary, usually overtopping inflorescence, bright green to dark green, rarely tinged with red near base, closely sheathing stem for much of length, linear-terete, hollow, up to 800 mm long. Inflorescence a raceme up to 300 x 10 mm. Flowers 6-100, up to 4 mm diameter, shortly-stalked and closely spaced, more or less overlapping. Perianth green, segments up to 2.5 mm long, widely spreading, thick and fleshy. Dorsal sepal 3 mm long, broadly ovate, erect or projecting forwards, cucullate, concave, column-embracing, acute with apex usually slightly turned upwards, smaller than ovary at flowering; lateral sepals much shorter and narrower, acute, strongly deflexed, apices tending to coil under. Petals shorter still, obtuse, erect, usually partially hidden under dorsal sepal. Labellum sessile, up to 2.5 mm long, green or yellow-green, oblong, sharply deflexed or decurved, pinched in at about mid-length to form a slight to obvious waste; apex truncate or slightly emarginate, not apiculate though often folded to appear so; margin papillose and usually also crenate and undulate; anterior callus variously developed, verrucose, rather irregular, often raised on a rounded ridge; basal calli dark green, oval, prominent, and usually continuous at sides with narrow band of callus behind transverse, silt-like (not pouched) furrow; labellum standing away from ovary at a very narrow angle. Column short, obtuse, base of column about as broad as stigma, wings mostly membranous throughout. Anther terminal, erect, situated above stigma, hemispherical, pollinia spheroidal, pollen granular. Stigma broadly ovate; rostellum ovate Capsules broadly ovoid, ovoid-ellipsoid, brown when ripe.

## Flowering:

August - November

## Fruiting:

October - March

## Threats:

Not Threatened

## \*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April 2007. Description adapted from Moore and Edgar (1970).

## References and further reading:

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=988](http://nzpcn.org.nz/flora_details.asp?ID=988)



**Caption:** *Microtis*  
**Photographer:** DoC



**Caption:** Kennedy Bay,  
November  
**Photographer:** John Smith-  
Dodsworth

# *Pimelea oreophila* subsp. *lepta*

**Common Name(s):**

Pimelea

**Current Threat Status (2012):**

Not Threatened

**Distribution:**

Endemic. New Zealand: South Island (southern Canterbury, north, east and central Otago, Southland, eastern Fiordland)

**Habitat:**

Montane to alpine. In tall and short tussock grassland, open shrubland and on peat along bog margins. Mainly associated with schist substrates but also on sandstone, plutonics, ultramafics, limestone.

**Features\*:**

Procumbent, trailing shrub, with few to many, slender (2.0–2.5 mm), brown, flexible young stems densely covered in long, fine hairs, internodes 2–4 mm, node buttresses lunate, or extending the whole length of the internodes, with hairy strips between, sometimes moderately prominent on leafless stems. Older stems dark brown, up to 3 mm diameter, up to 500 mm long, occasionally with adventitious roots, sometimes climbing in upright shrubs. Reduced in stature on exposed sites with rocky substrates, sometimes forming short-stemmed, appressed rosettes. Branching mainly sympodial. Young stems brown, moderately densely covered in short or moderately long, white, grey or sometimes yellowish appressed hair cover; older stems darker brown, glabrate. Internodes of young stems 1–5 mm long. Node buttresses lunate to elongate, or sometimes extending the full length of internodes, with bands of hair between; usually not very prominent on leafless stems. Leaves decussate, on short (0.5–1.0 mm), often red petioles, ascending at first, usually becoming patent, often with a distichous appearance on prostrate stems. Lamina 4–8 × 2–4 mm, glaucous or medium to dark green, elliptic or ovate flat or keeled, mid-vein evident; tip acute but usually blunt-pointed, sometimes obtuse; base cuneate; abaxial hairs long, dull white to yellowish, usually moderately dense especially at margins and forming a distinct coma at the tip, often becoming glabrous as leaves age; stomata on both adaxial and abaxial surfaces. Inflorescences terminal, 5–15-flowered, receptacle densely covered in short hairs. Involucral bracts 4, the same size as ordinary leaves, or larger (6 × 4 mm). Plants gynodioecious. Flowers white, fragrant, on short pedicels (0.3 mm) densely covered with short hairs outside; inside hairless. Female tube 2.5–4.0 mm long, ovary portion 3 mm, calyx lobes 1–2 × 1 mm; hermaphrodite tube 4–6 mm long, ovary portion 2 mm, calyx lobes 2.0–3.0 × 1.5–2.0 mm. Anther dehiscence introrse. Ovary with dense clump of short or long hairs at summit. Fruits ovoid, fleshy, orange or red, 4 × 3 mm. Seeds ovoid 2.7 × 2.3 mm.

**Flowering:**

September - February

**Fruiting:**

October - May

**Threats:**

Probably not threatened. However as *Pimelea oreophila* subsp. *lepta* was not assessed by Burrows (2011) using the New Zealand Threat Classification Manual (Townsend et al. 2008) it has no valid threat assessment. So at this stage it seems best to recommend a interim threat assessment of "Data Deficient".

**\*Attribution:**

Fact sheet prepared for NZPCN by P.J. de Lange (28 April 2011). Description adapted from Burrows (2011).

**References and further reading:**

Burrows, C.J. 2011: Genus *Pimelea* (Thymelaeaceae) in New Zealand 4. The taxonomic treatment of ten endemic abaxially hairy-leaved species. *New Zealand Journal of Botany* 49: 41–106.

Townsend, A.J.; de Lange, P.J.; Norton, D.A.; Molloy, J.; Miskelly, C.; Duffy, C. 2008: The New Zealand Threat Classification System manual. Wellington, Department of Conservation.

**For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=6671](http://nzpcn.org.nz/flora_details.asp?ID=6671)

## *Poa cita*

**Common Name(s):**

Silver tussock

**Current Threat Status (2012):**

Not Threatened

**Threats:**

Not Threatened

**For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=1155](http://nzpcn.org.nz/flora_details.asp?ID=1155)



**Caption:** Tiwai Peninsula,  
Southland

**Photographer:** Jesse Bythell



**Caption:** *Poa cita*

**Photographer:** Bec Stanley



# *Polystichum vestitum*

## Common Name(s):

punui, prickly shield fern

## Current Threat Status (2012):

Not Threatened

## Distribution:

Endemic. New Zealand: North, South, Stewart, Chatham, Snares, Antipodes, Campbell, Auckland, Macquarie Islands. In the North Island scarce north of Auckland and the Coromandel Peninsula.

## Habitat:

Coastal to alpine. In the northern part of its range *P. vestitum* is confined to montane regions or cold ('temperature inversion') situations, further south it progressively extends to lower altitudes; in the South Island it ranges from coastal to alpine regions. *Polystichum vestitum* is a species of exposed habitats, such as forest margins, gully floors and tussock grasslands, but it also commonly extends into forest in colder, wetter parts of New Zealand.

## Features\*:

Rhizome erect, sometimes forming a trunk up to 0.9 m tall. Stipe 90–410 mm long. Stipe and rachis densely clothed with scales of diverse form. Larger rachis scales usually ovate-lanceolate (those from the mid rachis 340–1620 mm at their mid length) to lanceolate-acicular (Chatham Islands and these from the mid rachis 180–780 mm at their mid length); usually bicolorous, with an obvious dark brown centre surrounded on all sides by pale brown margins, but dark centre sometimes much reduced (Chatham Islands, Subantarctic Islands and islands around Stewart Island especially) such that the rachis scales are uniformly pale brown; apex usually long and tapering; usually without marginal projections except for plants from the Chatham Islands, in which they may be very well developed; usually underlain by pale bristle-like scales. Lamina 0.23–2.0 m, long, 90–350(–480) mm; narrowly elliptic to narrowly oblong; bipinnate; adaxially usually dark green (sometimes purple-green), abaxially paler. Primary pinnae in 20–62 pairs, oblong. Secondary pinnae all stalked except those towards the apex of primary pinnae; with sharply pointed apex and prominent marginal teeth and/or crenulations. Sori round. Indusia peltate, ± flat, ± round; with entire although sometimes undulate and/or scalloped margins; central dark area usually insignificant (< 10% surface area, and usually < 5%).

## Flowering:

Not Applicable - Spore Producing

## Fruiting:

Not Applicable - Spore Producing

## Threats:

Not Threatened

## \*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (13 November 2012). Description adapted from Perrie et al. (2003).

## References and further reading:

de Lange, P.J.; Heenan, P.B.; Rolfe, J.R. 2011: Checklist of vascular plants recorded from the Chatham Island Islands. Department of Conservation, Wellington. 57pp.

Perrie, L.R.; Brownsey, P.J.; Lockhart, P.J.; Large, M.F. 2003B: Morphological and genetic diversity in the New Zealand fern *Polystichum vestitum* (Dryopteridaceae), with special reference to the Chatham Islands. *New Zealand Journal of Botany* 41: 581-602.

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=2223](http://nzpcn.org.nz/flora_details.asp?ID=2223)



**Caption:** *Polystichum vestitum*

**Photographer:** John Barkla



**Caption:** Stokes Valley, Lower Hutt.

**Photographer:** Jeremy Rolfe

## *Raoulia parkii*

### **Common Name(s):**

Celadon mat daisy

### **Current Threat Status (2012):**

Not Threatened

### **Distribution:**

South Island: east of the main divide.

### **Habitat:**

Upland to subalpine open places, rocky ground, in grassland and fellfield.

### **Features:**

Small daisy with creeping stems, forming tight to open mats. Branchlets erect. Leaves broad, 3-5mm long, 2mm wide, angled at midrib, spreading to recurved at tips and closely overlapping. Flower heads small, 4-7mm across. Plant covered with layers of pale-yellow to yellow-green hair (except near base), giving overall pale green appearance.

### **Flowering:**

No information

### **Fruiting:**

No information

### **Threats:**

Not Threatened

### **For more information, visit:**

[http://nzpcn.org.nz/flora\\_details.asp?ID=201](http://nzpcn.org.nz/flora_details.asp?ID=201)



**Caption:** Frosty flat, tops of inland Kaikoura

**Photographer:** Simon Moore



**Caption:** Cultivated

**Photographer:** John Barkla

# *Senecio quadridentatus*

## Common Name(s):

cotton fireweed, white fireweed, pahokoraka

## Current Threat Status (2012):

Not Threatened

## Distribution:

Indigenous. Three Kings, North, South, Stewart and Chatham Islands.  
Present in Australia

## Habitat:

Throughout from coastal to subalpine habitats. Always in recently disturbed ground

## Features\*:

Short-lived, usually much branched, perennial herb up to 1 m tall. Stems erect, moderately to densely covered in appressed-cottony hairs. Mid stem leaves more or less evenly spaced and sized., linear to narrow linear, 80-220 mm long, length:width ratio (l:w) 15-40 (or 7-10 if lobes present), mostly entire, rarely dissected or lobed, sometimes coarsely dentate to lobate; segments remote 1-3 per side and mainly in proximal half, spreading, triangular, base attenuate or occasionally with small entire auricles, not amplexicaul; margin entire or with frequent minute denticulations, appearing entire due to revolute margin; upper surface hairs appressed-cobwebby becoming glabrescent; lower surface green or purple-green, moderately to densely woolly. Upper stem leaves similar; auricles more frequent. Unit Inflorescence usually of many capitula; total number of capitula per stem often 50-200; overtopping variable; mature lateral peduncles mostly 5-25 mm long. Calycular bracteoles of capitula 4-8, 1.0-3.0 mm long peduncle and margin of bracteoles cobwebby to woolly at anthesis, or glabrate; involucre 6.0-10.0 x 1.2-2.0 mm; involucral bracts 8-14, basally cobwebby or glabrate, with apex erect; stereomes (in dried material) more or less flat, green or partially purple, sometimes minutely black-tipped or purple in a zone 1 mm long below tip. Florets 18-50, c. 80% female; corolla-lobes triangular, not or hardly thickened apically; corolla of bisexual florets 6-9 mm long, 4-lobed; corolla-lobes of female florets 3, 0.1 mm long. Cypsela 2.2-3.5 mm long, subcylindric, narrow to and constricted below apex, usually with 2-3 rows of hairs in narrow grooves between broad ribs, sometimes glabrous.

## Flowering:

October - March

## Fruiting:

December - May

## Threats:

Not Threatened

## \*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (12 July 2005). Description based on Thompson (2004).

## References and further reading:

Thompson, I.R. 2004: Taxonomic studies of Australian *Senecio* (Asteraceae): 1. The disciform species. *Muelleria* 19: 101-214.

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=2259](http://nzpcn.org.nz/flora_details.asp?ID=2259)



**Caption:** Cape Palliser

**Photographer:** Peter de Lange



**Caption:** Bannockburn sluicings

**Photographer:** John Barkla

# *Thelymitra longifolia*

## Common Name(s):

White Sun Orchid

## Current Threat Status (2012):

Not Threatened

## Distribution:

Indigenous. Three Kings, North, South, Stewart, Chatham and Auckland Islands. Also on Norfolk Island.

## Habitat:

Coastal to subalpine (up to 1200 m a.s.l.). Occupying a wide range of habitats from open ultramafic talus to dense forest. However, it is most common in shrublands. This species is extremely variable and it is likely that following taxonomic revision, a number of forms, some with distinct ecologies, may be formally segregated.

## Features\*:

Terrestrial, tuberous, glabrous, spring to summer-green perennial herb, either solitary or in dense colonies of 4-20 plants arising through vegetative extension. Plant at flower up to 1 m tall (usually much less). Leaf solitary, erect, suberect or trailing the ground, very fleshy to subcoriaceous, deeply to weakly channelled and prominently ribbed longitudinally, 50-380 x 10-40 mm, green, dark green, reddish-green, reddish brown or yellow-green, lanceolate to linear-lanceolate, base closely sheathing, margins, surface and apex often disfigured by black spots and sometimes by prominent dark orange-brown rust pustules. Flowering stem stiffly erect, rather wiry, green, reddish green to brownish green. Bracts 1-2(-3), foliaceous, closely-sheathing, fleshy, of similar colour to stem and leaf. Raceme bearing (1-)5(-20) scented or unscented flowers. Flowers 8-18 mm diameter, externally red-green to dark green, internally white or very pale pink, segments spreading, widely spreading or scarcely opening, dorsal sepal slightly broader than laterals. Petals and labellum alike, narrowly ovate, subacute. Column up to 8 mm long, erect, basally brown or white grading to dark brown to almost black toward apex; column arms terete, mostly bent inwards such that they are lying more or less under post-anther lobe; cilia abundant, floccose (like cotton) or coarsely ciliate, white or cream, short and crowded in globose masses; post anther lobe overtopping anther, dark and smooth above middle, and usually yellowish on the semi-circular cucullate apex.

## Flowering:

September - February

## Fruiting:

October - April

## Threats:

Not Threatened

## \*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April 2007. Description subsequently published in de Lange et al. (2007) and Rolfe & de Lange (2010).

## References and further reading:

de Lange, P.; Rolfe, J. St George, I. Sawyer J. 2007: Wild orchids of the lower North Island. Department of Conservation, Wellington. 194pp.

Rolfe, J.R.; de Lange, P.J. 2010: Illustrated guide to New Zealand sun orchids, *Thelymitra* (Orchidaceae). Jeremy Rolfe, Wellington.

## For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=1316](http://nzpcn.org.nz/flora_details.asp?ID=1316)



**Caption:** *Thelymitra longifolia*  
**Photographer:** DoC



**Caption:** *Thelymitra longifolia*  
**Photographer:** DoC