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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.

# *Argyrotegium mackayi*

## Common Name(s):

None known

## Current Threat Status (2012):

Not Threatened

## Distribution:

Endemic. North Island: Ruahine and Tararua Ranges; South Island: throughout Stewart Island: Mt Anglem only

## Habitat:

Montane to alpine bogs, herbfield and grassland, often in wet sites and commoner in wetter areas

## Features:

Perennial herb with much-branched stems terminating in leafy rosettes and usually forming mats, 10-70 mm tall. Leaves mostly in basal rosettes; basal leaves cuneate to short petiole, densely white-tomentose on both surfaces including mid-vein but usually excluding petiole on upper, plane, elliptic to broad-elliptic or spatulate, usually obtuse, sometimes acute, mucronate, 3-20 × 2-6 mm; cauline leaves 1-few, apetiolate, reduced upwards and becoming ovate-triangular to linear, amplexicaul and finally scalelike. Capitula c.2-4 mm diameter, usually solitary, very rarely 2 together; subtending leaves < capitula; scape terminal, simple, erect, amongst leaves at flowering, usually elongating somewhat at fruiting. Involucral bracts elliptic-oblong, obtuse to subacute, 4.5-6.0 mm long; stereome green or tinged reddish purple at apex; lamina pale brown, with darker band at base; gap and margins clear or tinged reddish purple. Achenes glabrous, c.1.2 mm long

## Flowering:

October - February

## Fruiting:

December - April

## 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=1485](http://nzpcn.org.nz/flora_details.asp?ID=1485)



**Caption:** Old Man Range, Otago

**Photographer:** John Barkla



**Caption:** Countess Range

**Photographer:** John Barkla

# *Argyrotegium nitidulum*

## Common Name(s):

None known

## Current Threat Status (2012):

At Risk - Naturally Uncommon

## Distribution:

Indigenous. South Island, Marlborough and near Arthurs Pass.  
Present in Australia

## Habitat:

Alpine, favouring open stony ground within tussock grassland, herbfield. Also on scree.

## Features:

Stoloniferous perennial with much-branched, densely packed stems terminating in leafy rosettes and usually forming compact cushion or ball-like mats, 20-40 mm tall. Leaves mostly in basal rosettes, imbricating, initially erect then reflexing with age, basally scarious to almost glabrous though usually with a few floccose hairs near junction with stem, upper portion clad in appressed, sericeous, glossy brown tomentum; basal leaves slightly narrowed to broad sheathing petiole, densely sericeous on both surfaces including mid-vein but not petiole, keeled toward apex, lamina narrow-oblong to spatulate, obtuse, 5-12 × 2-4 mm; cauline leaves 1-2, narrow. Capitula solitary, subsessile or sessile c.5-8 mm diameter; subtending leaves < capitula; scape terminal, simple, erect, amongst leaves at flowering, elongating only to just above leaves at fruiting. Involucral bracts scarious, narrowly elliptic-oblong, subacute, 6.9-8.0 mm long; stereome yellow-green; lamina very pale brown, sometimes darker at base; gap and margins clear to mid-brown. Achenes 1.0-1.2 mm long, with scattered appressed hairs, becoming glabrous. Pappus of c.30-36 filiform hairs, c.6.0-6.2 mm. long.

## Flowering:

November - January

## Fruiting:

December - February

## Threats:

While not actively threatened this is a very uncommon plant in New Zealand. To ensure its long term security it is important that all populations are routinely monitored. Some populations are especially vulnerable to plant collectors and to a lesser extent the spread of weeds.

## 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=486](http://nzpcn.org.nz/flora_details.asp?ID=486)



**Caption:** Island Saddle (January)

**Photographer:** John Smith-Dodsworth



**Caption:** Island Saddle (January)

**Photographer:** John Smith-Dodsworth



## *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

## *Euchiton delicatus*

### **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=1870](http://nzpcn.org.nz/flora_details.asp?ID=1870)



**Caption:** L. Otamangakau,  
January

**Photographer:** John Smith-  
Dodsworth



## *Euchiton ensifer*

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

Creeping Cudweed

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

Threatened - Nationally Endangered

### **Distribution:**

Endemic. North and South Islands. In the North Island known from the Kaingaroa Plain (Matea Road) and Kaimanawa Ranges. In the South rather locally distributed from Nelson south to Southland but not, apparently in Westland.

### **Habitat:**

Montane to alpine in damp sites, particularly tarn and other ephemeral pond margins, or in seepages and flushes within tussock grassland. Sometimes on stream banks.

### **Features:**

Stoloniferous, creeping perennial. Stems 1-4(-6), decumbent to ascending, spreading, simple, 20-100 mm tall. Leaves mainly basal; these short-petiolate, 13-50 x 1-5 mm, narrow-elliptic to linear, cuneate, acute, mucronate, densely covered in closely appressed white indumentum on lower surface except mid-vein, almost glabrous to sparsely tomentose above; cauline leaves only slightly reducing up stem, linear, apetiolate. Capitula 1-2 mm diameter, 1-9 in loose terminal clusters; longest subtending leaves < to marginally > diameter of cluster. Involucral bracts 4.2-5 mm, elliptic-oblong, obtuse to subacute; stereome green; lamina pale brown with darker markings toward base; gap and margins tinged pale to bright rose or red-purple. Achenes 0.8-1 mm long, covered with short antrorse hairs.

### **Flowering:**

October - January

### **Fruiting:**

November - April

### **Threats:**

A naturally uncommon, biologically sparse species which, based on current information does not appear to under any serious threat. However, weeds encroaching on montane wetlands are threatening a few populations.

### **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=255](http://nzpcn.org.nz/flora_details.asp?ID=255)



**Caption:** *Euchtiton ensifer*  
**Photographer:** John Smith-Dodsworth

## *Euchiton involucratus*

### **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=2128](http://nzpcn.org.nz/flora_details.asp?ID=2128)



**Caption:** Hutt River, north of Stokes Valley. Dec 2007.

**Photographer:** Jeremy Rolfe



**Caption:** Hutt River, north of Stokes Valley. Dec 2007.

**Photographer:** Jeremy Rolfe

## *Euchiton japonicus*

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

Not Threatened

### **Threats:**

Not Threatened

### **References and further reading:**

Flann, C. 2010: Morphometric study of *Euchiton* (Gnaphalieae: Asteraceae). *Australian Journal of Botany* 23: 285-305

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=2127](http://nzpcn.org.nz/flora_details.asp?ID=2127)



**Caption:** Terminal cluster of capitula.

**Photographer:** Jeremy Rolfe.  
Stokes Valley. Jan 2007.



**Caption:** Close up of capitula showing involucre bracts.

**Photographer:** Jeremy Rolfe.  
Stokes Valley. Jan 2007.

## *Euchiton lateralis*

### **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=2129](http://nzpcn.org.nz/flora_details.asp?ID=2129)



## *Euchiton limosus*

### **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=2130](http://nzpcn.org.nz/flora_details.asp?ID=2130)



**Caption:** Plant on track with patch of *Prunella vulgaris* behind.  
**Photographer:** Jeremy Rolfe



**Caption:** Piha, April  
**Photographer:** John Smith-Dodsworth

# *Euchiton paludosus*

## Current Threat Status (2012):

At Risk - Naturally Uncommon

## Distribution:

Endemic. North, South and Stewart Islands. In the North Island scarce from about the Kaingaroa Plain south. In the South Island local from Nelson to Southland. Local on Stewart Island

## Habitat:

Montane to subalpine mainly in bogs, or occasionally along stream and tarn margins, seepages and flushes within forest, shrubland, tussock grassland or herbfield.

## Features:

Stoloniferous perennial, forming diminutive, compact mats up to 80 mm diameter. Stems 1-2 ascending, simple 10-50 mm tall. Petioles rather short or absent. Leaves mainly basal; these 5-20 x 0.5-4 mm, elliptic to linear-elliptic or narrow-oblong, obtuse to subacute, base often cuneate, attenuate; lower surface except mid-vein densely covered in white indumentum, upper surface usually glabrous and pleated, burnished bronze-green to dark green or purple green, sometimes sparsely tomentose, without pleats; cauline leaves scale-like, 1-3, ovate-triangular, amplexicaul, scarcely reducing toward apex. Capitula 1 mm diameter, solitary; subtending leaves absent; scape amongst leaves at flowering, filiform and exceeding leaves at fruiting. Involucral bracts elliptic-oblong, obtuse 3.8-4.5 mm, stereome green, tinged red-purple or maroon at apex; lamina pale brown, with a darker band at base; gap and margins tinged pale to deep red-purple. Achenes c.1 mm, covered with short antrorse hairs.

## Flowering:

November - December

## Fruiting:

December - February

## Threats:

A naturally uncommon, biologically sparse species that is very widely distributed but never common at any particular place. It may be threatened at some sites by weeds

## 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=256](http://nzpcn.org.nz/flora_details.asp?ID=256)



**Caption:** Showing one of the two colour morphs, this being the more unusual green form.

**Photographer:** Nick Singers



**Caption:** Mount Ruapehu. Feb 2012.

**Photographer:** Jeremy Rolfe



## *Euchiton polylepis*

### Common Name(s):

None known

### Current Threat Status (2012):

At Risk - Naturally Uncommon

### Distribution:

Endemic to New Zealand. Known from the Central Volcanic Plateau and Mt Taranaki/Egmont and adjacent coastline of North Island south throughout all of the South Island, except - apparently - Westland.

### Habitat:

Lowland to subalpine in damp places, especially stream sides and damp hollows in grassland, cliffs and rocky laces.

### Features:

Stoloniferous, perennial daisy. Stems 1-2, ascending, 1-6 cm tall. Leaves mostly basal, these elliptic to narrow-obovate, apex often rounded to acute with a small sharp projecting tip (mucronate), 5-15 (-30) × (1-)4(-5) mm, densely white-tomentose on the under sides except the mid vein, upper sides olive green to grey-green usually hairless. Upper stem leaves 1-3(-5), scale-like, ovate-triangular, almost clasping around stem (amplexicaul). Flower heads (capitula) 1-2 mm diameter, solitary, buried amongst foliage when flowering, exceeding leaves when fruiting. Involucral bracts elliptic-oblong, obtuse, 3.2-4(-4.5) mm long, central portion green, apex often tinged reddish-purple at apex, margins pale to mid-brown, with darker markings at base. Achenes (seeds) 0.7-1 mm, sparsely papillate (with round projections).

### Flowering:

November - February

### Fruiting:

December to April

### Threats:

Described by Drury (1972), and believed to be uncommon. Although it would seem unlikely to be seriously threatened the exact status of this species, perhaps because it is so small and easily over-looked, is uncertain and it would be vulnerable to competition from taller weeds.

### 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=748](http://nzpcn.org.nz/flora_details.asp?ID=748)



**Caption:** Minaret Burn, March

**Photographer:** John Barkla



**Caption:** Minaret Burn, March

**Photographer:** John Barkla

## *Euchiton ruahinicus*

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

Not Threatened

### **Threats:**

Not Threatened

### **References and further reading:**

Reed, A. W. (2002). The Reed Dictionary of New Zealand Place Names. Reed Publishing, Auckland.

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=1871](http://nzpcn.org.nz/flora_details.asp?ID=1871)

## *Euchiton sphaericus*

### **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=2131](http://nzpcn.org.nz/flora_details.asp?ID=2131)



**Caption:** Lake Westmere, Whanganui. Feb 2013.

**Photographer:** Colin Ogle



**Caption:** Cannon Point, Upper Hutt. Mar 2013.

**Photographer:** Jeremy Rolfe

## *Euchiton traversii*

### **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=1872](http://nzpcn.org.nz/flora_details.asp?ID=1872)



**Caption:** Mount Ruapehu. Feb 2012.

**Photographer:** Jeremy Rolfe



**Caption:** Mount Ruapehu. Feb 2012.

**Photographer:** Jeremy Rolfe