



Mt hutt d Gentianella

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Made on the New Zealand Plant Conservation Network website: 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).

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](#)).

Dracophyllum longifolium var. longifolium

COMMON NAME

inanga, inaka

SYNONYMS

None

FAMILY

Ericaceae

AUTHORITY

Dracophyllum longifolium (J.R.Forst et G.Forst.) R.Br. var. *longifolium*

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

DRALVL

CHROMOSOME NUMBER

2n = 26

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Erect grassy shrub with light grey bark and erect twigs bearing long narrow pointed leaves inhabiting the South Island and Subantarctic Islands. Leaves 4-14cm long by 1-4mm wide, widening to a sheath that encloses the stem which has a finely hairy margin (lens needed).

DISTRIBUTION

Endemic. New Zealand: South, Stewart, Auckland, and Campbell Islands

HABITAT

Widespread from sea level to the alpine zone growing in forest, woodland, shrubland and bogs on mountain and hill slopes, oncoastal cliffs and on bluffs.



Left Borland valley, January. Photographer: John Smith-Dodsworth



Left Borland valley, January. Photographer: John Smith-Dodsworth

FEATURES

Erect to spreading single-stemmed shrub or tree 1–12 m tall. Bark on old branches grey to blackish brown, finely to deeply fissured, young stems reddish brown. Leaves dimorphic. Juvenile leaves spirally arranged or crowded at tips of branches, erect to spreading; lamina sheath 9–20 × 5–11 mm, light green, shoulders tapering to truncate and margin ciliate in upper half; lamina 100.0–250.0 × 2.5–7.0 mm, linear-triangular to lanceolate; margins serrulate with 50–80 teeth per 10 mm. Adult leaves erect to spreading; lamina sheath 5–15 × 4–7 mm, light green, striate, shoulders rounded to auricled and margin membranous with the top half ciliate; lamina 40–232 × 1–6 mm, linear to linear-triangular, prominently striated; margins serrulate with 120–170 teeth per 10 mm; apex triquetrous. Inflorescence a terminal raceme on lateral branchlets, shorter than leaves, initially erect but drooping later, dense, 24–55 mm long, linear-oblong. Inflorescence bract over-topping flowers, subulate, 17.0–35.0 × 1.2–1.5 mm, scabrous at base of adaxial surface, margins serrulate. Flowers 5–18, pedicellate; flower bract caducous, equaling to longer than flower, 10–15 × 5–8 mm, broadly ovate, adaxial surface pubescent in upper third, margins ciliate; pedicel straight, 0.7–2.0 mm. Sepals 2.5–7.0 × 1.5–3.0 mm, ovate-lanceolate, equal to or longer than corolla tube, striate, surfaces glabrous with the top half sometimes pubescent on adaxial surface; margins ciliate. Corolla white; corolla tube 4.0–5.0 × 2.5–3.5 mm; cylindrical, widened at mouth; corolla lobes reflexed, 1.5–2.0 × 1.5–2.5 mm, ovate to ovate-triangular, shorter than corolla tube, inflexed at apex; apices subacute; adaxial surface papillate. Stamens inserted on corolla tube in the upper third, filaments 0.3–0.5 mm long; anthers included, 0.8–1.0 mm long, oblong, light yellow. Ovary 1.3–2.0 × 1.3–2.0 mm obovate, apex round; nectary scales 1.2–1.5 × 0.8–1.0 mm, rectangular, apices irregularly toothed; style included, 0.7–1.3 mm long, glabrous; stigma capitate. Fruit pedicellate, 3.5–3.6 × 3.8–4.0 mm, obovoid, light brown, apex round, glabrous. Seeds 0.8–1.2 mm long, ovoid, light brown, testa slightly reticulate.

SIMILAR TAXA

Dracophyllum longifolium var. *longifolium* is recognised by the very broad, long and flat juvenile leaves, stiff, narrow and erect adult leaves with wide, shouldered sheaths, flower bracts that fall early; sepals short and broad with long white cilia and the mouth of the corolla tube that is slightly widened. *Dracophyllum longifolium* var. *longifolium* is most similar to *D. cockayneanum* with which it is sympatric on the Auckland and Campbell Islands and from which it is distinguished by the glabrous juvenile and adult leaves. *Dracophyllum longifolium* var. *longifolium* has been erroneously reported from the North Island in the past by numerous botanists however, plants so referred are in fact *D. filifolium* a very different species. Despite the currently available names *Dracophyllum longifolium* var. *longifolium* has no close relationship to *D. longifolium* var. *septentrionale* (Venter 2009).

FLOWERING

October – March

FLOWER COLOURS

Red/Pink, White

FRUITING

Throughout the year

LIFE CYCLE

Minute seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

ETYMOLOGY

dracophyllum: Dragon leaf, from its likeness to the dragon tree of the Canary Islands

longifolium: Long leaved

WHERE TO BUY

Not commercially available.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 25 June 2012. Description adapted from Venter (2009).

REFERENCES AND FURTHER READING

Venter, S. 2009: A taxonomic revision of the genus *Dracophyllum* Labill. (Ericaceae). Unpublished Phd Thesis, Victoria University of Wellington, 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

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dracophyllum-longifolium-var-longifolium/>

Dracophyllum pronum

COMMON NAME

trailing neinei

FAMILY

Ericaceae

AUTHORITY

Dracophyllum pronum W.R.B.Oliv.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

DRAPRO

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Low-growing sprawling reddish-green woody shrub with many small narrow leaves that are flattened on the upper surface inhabiting mountain areas of the South Island. Leaves to 11mm long, flattened, with tuft of hairs at base (lens needed). Flowers small, white, solitary, at end of twigs.

DISTRIBUTION

Endemic. New Zealand: South Island.

HABITAT

Dracophyllum pronum is a common species of montane to subalpine habitats in the South Island. In these habitats it is characteristically found on gentle to steep rocky slopes, ridgelines and along the bases of stable screes, also within subalpine shrubland, shrub-tussockland, herbfield, fellfield, bogs or tussock grassland.



Island saddle, November. Photographer: John Smith-Dodsworth



Island saddle, November. Photographer: John Smith-Dodsworth

FEATURES

Procumbent scrambling shrub or subshrub 10–250 mm tall. Branches decumbent to prostrate. Bark on old branches grey and smooth, sometimes with deep fissures in very old specimens, young stems reddish brown. Leaves spreading; lamina sheath 0.7–4.0 × 1.0–3.0 mm, shoulders tapering to rounded and margin membranous, ciliate. Lamina linear, 2.5–11.0 × 0.5–1.0 mm, adaxial surface flat, with a tuft of scabrid hairs at base; margins serrulate with 100–140 teeth per 10 mm; apex obtuse to acute. Inflorescence a sessile, terminal, solitary flower on lateral branchlets; shorter than leaves; inflorescence bract shorter than flower, coriaceous, ovate at base, 3.2–4.1 × 0.6–0.8 mm, margins serrulate; flower bract shorter than flower, 3.5–4.0 × 0.6–0.8 mm, foliose, ovate; margins serrulate. Sepals 1.7–4.5 × 1.4–1.6 mm, ovate–lanceolate, equal or longer than corolla tube; margins ciliate. Corolla white to light pink; corolla tube 2.5–4.0 × 1.5–1.8 mm, cylindrical; corolla lobes 1.0–2.0 × 1.0–2.0 mm, reflexed, ovate–triangular, apex inflexed, subacute; apical ridge present, adaxial surface papillate. Stamens inserted on corolla tube in the middle, filaments 0.5–1.0 mm long; anthers 0.8–1.0 mm long, included light yellow, oblong. Ovary ovate, 0.5–1.0 × 0.5–1.2 mm, apex round; nectary scales 0.5–0.8 × 0.5–0.7 mm, rectangular, apices retuse; style included, 1.0–1.5 mm long, glabrous; stigma capitate. Fruit light brown, 1.2–2.5 × 1.5–2.0 mm, oblong, glabrous, apex truncate. Seeds 0.46–0.5 mm long, yellowish brown, ovoid, testa slightly reticulate.

SIMILAR TAXA

Dracophyllum pronum is recognised by the often scrambling growth habit, decumbent to prostrate stems; by the flat adaxial lamina surface; by the foliose flower bracts which are shorter than the corolla tube and furnished with a serrulate margin; and by the sepals which are equal to or longer than the corolla tube, and which have a prominent apical ridge on the corolla lobe. The nectary scales of *Dracophyllum pronum* are also distinctively retuse. Of the other procumbent *Dracophyllum* species, *D. pronum* is most often confused with *D. palustre*. From that species it differs by the shorter leaves (2.5–11.0 mm cf. 14.0–27.0 mm) and by the acute rather than triquetrous lamina apex. The inflorescence bracts of *D. pronum* is also diagnostically shorter than the flower (not like those of *D. palustre* equal in length), far narrower (0.6–0.8 mm cf. 1.5–2.0 mm) and with serrulate green rather than white margins. The corolla tube is also narrower (1.5–1.8 mm cf. 2.0–2.2 mm) and the apical ridge of the corolla lobes of *D. pronum* is absent in *D. palustre*.

FLOWERING

December – April

FLOWER COLOURS

White

FRUITING

February - June

LIFE CYCLE

Minute seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild. Don't be tempted - take photographs instead!

ETYMOLOGY

dracophyllum: Dragon leaf, from its likeness to the dragon tree of the Canary Islands

WHERE TO BUY

Not commercially available.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (4 April 2012). Description adapted from Venter (2009)

REFERENCES AND FURTHER READING

- Venter, S. 2009: A taxonomic revision of the genus *Dracophyllum* Labill. (Ericaceae). Unpublished Phd Thesis, Victoria University of 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

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dracophyllum-pronum/>

Dracophyllum uniflorum var. frondosum

COMMON NAME

sprawling inaka, sprawling turpentine scrub

SYNONYMS

None

FAMILY

Ericaceae

AUTHORITY

Dracophyllum uniflorum var. frondosum G.Simpson

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

DRAUVF

CURRENT CONSERVATION STATUS

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

PREVIOUS CONSERVATION STATUSES

2009 | At Risk – Naturally Uncommon | Qualifiers: PD

2004 | Range Restricted

BRIEF DESCRIPTION

Low-growing grassy shrub with branches that droop down slopes and tufts of narrow wavy leaves at tips of twigs. Leaves 18-34mm long by 0.5-1.5mm wide. Flowers white, tubular, 7-10mm long, solitary at the tips of short side branches.

DISTRIBUTION

South Marlborough, central and eastern Otago.

HABITAT

Dracophyllum uniflorum var. frondosum is an land lowland to montane plant of rocky gorges and river sides and on cliff faces, especially in the schist country of eastern Otago where it can be locally abundant.



Dracophyllum uniflorum var. frondosum.

Photographer: Cathy Jones



Photographer: Cathy Jones

FEATURES

Spreading to decumbent multi-stemmed shrub 0.50–1.0 m tall. Bark on old branches greyish to dark brown, finely fissured, young stems reddish brown. Leaves erect to spreading; lamina sheath, 3.5–7.5 × 2.0–5.0 mm, light green to olive green, margin membranous, shoulders rounded to auricled, ciliate or only the top half ciliate; lamina 18.0–58.0 × 0.5–2.0 mm, light green to olive green, linear, adaxial surface minutely rugose with a tuft of scabrid hairs at base, abaxial surface glabrous; margins serrulate with 60–80 teeth per 10 mm; apex triquetrous and keeled. Inflorescence a terminal, solitary, erect flower on lateral branches, shorter than leaves; flower bract over-topping the flower, foliose, coriaceous, 5.5–11.0 × 0.4–1.2 mm linear; adaxial surface scabrid, abaxial surface glabrous, margin serrulate. Sepals 4.5–9.0 × 1.5–2.0 mm, lanceolate, equaling corolla tube, surfaces glabrous with the top half pubescent on adaxial surface; margins serrulate. Corolla white; corolla tube 5.5–7.0 × 1.5–4.0 mm, cylindrical, widened at mouth, exterior glabrous; corolla lobes reflexed, 1.4–1.5 × 1.0–1.2 mm, ovate-triangular to triangular, shorter than corolla tube, apices inflexed, acute; apical ridge prominent, adaxial surface papillate. Stamens inserted on corolla tube in upper third, filaments 0.3–1.2 mm long; anthers included, oblong, light yellow, 1.0–1.2 mm long. Ovary 2.5–4.5 × 1.2–2.5 mm, cylindrical, apex truncate; nectary scales 1.2–1.5 × 0.5–0.7 mm, rectangular, apices subacute to retuse; style included, 2–4 mm long, glabrous; stigma five-lobed. Fruit sessile, 4.0–4.2 × 2.0–3.0 mm, light brown, broadly obovoid, apex truncate, glabrous. Seed 0.6–0.7 mm long, brown, ovoid, testa slightly reticulate.

SIMILAR TAXA

Dracophyllum uniflorum var. *frondosum* is distinguished by the lax, spreading growth habit (often with arching and/or pendulous branches); by the erect-spreading leaves that are 25–50 mm long with ciliate lamina sheaths and a prominent tuft of scabrid hairs at the base on the adaxial surface of the lamina; by the solitary flowers, and flower bracts which are longer than the flowers; by the corolla tube which is equal in length to the sepals; by the densely papillate corolla lobes and by the cylindrical ovary with truncate apex. *Dracophyllum uniflorum* var. *frondosum* is most closely allied to *D. rosmarinifolium* (which was once known as *D. uniflorum* var. *uniflorum*) with which it sometimes grows and from which it differs in the lax habit and scrambling stems. The flower bract is also longer than the flower and narrower (0.5–1.0 mm compared to 1.0–2.0 mm in *D. rosmarinifolium*) with the adaxial surface scabrid. The sepal in *Dracophyllum uniflorum* var. *frondosum* equals the corolla tube and the adaxial surface texture of the sepal is pubescent in the top half and it is also longer (7–10 mm) and wider (2.0–3.0 mm compared to 1.2–2.5 mm in *D. rosmarinifolium*) than the corolla tube; the corolla lobes are shorter (1.4–1.5 mm compared to 2.0–2.5 mm in *D. rosmarinifolium*), with longer (1.0–1.2 mm compared to 0.3–0.5 mm in *D. rosmarinifolium*) filaments. *Dracophyllum uniflorum* var. *frondosum* also has a longer (2.5–4.5 mm) cylindrical ovary with a truncate apex and a longer (3–4 mm) style.

FLOWERING

December – February

FLOWER COLOURS

White

FRUITING

March - August

PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

THREATS

Endemic. New Zealand: South Island (Nelson lakes Area, eastern Otago).

ETYMOLOGY

dracophyllum: Dragon leaf, from its likeness to the dragon tree of the Canary Islands

uniflorum: One flowered

WHERE TO BUY

Not commercially available.

TAXONOMIC NOTES

Venter (2009) argues that *Dracophyllum uniflorum* var. *frondosum* should be elevated to species rank. However until such time as this happens this plant can only be known by its varietal name. *Dracophyllum uniflorum* s.s. Venter (2009) regards as a synonym of *D. rosmarinifolium*.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (6 June 2012). Description adapted from Venter (2009).

REFERENCES AND FURTHER READING

Venter, S. 2009: A taxonomic revision of the genus *Dracophyllum* Labill. (Ericaceae). Unpublished Phd Thesis, Victoria University of Wellington, Wellington.

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dracophyllum-uniflorum-var-frondosum/>

Epilobium atriplicifolium

COMMON NAME

willowherb

SYNONYMS

Epilobium alsinoides subsp. *atriplicifolium* (A.Cunn.) P.H.Raven et Engelhorn

FAMILY

Onagraceae

AUTHORITY

Epilobium atriplicifolium A.Cunn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIATR

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North, South, Stewart, Chatham Antipodes, Campbell and Auckland Islands.



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



Kaikoura Peninsula. Photographer: Melissa Hutchison

FEATURES

Variable, suberect to erect, much-branched, matted, perennial herb 20-360 mm tall, bearing numerous leafy stolons arising from the base; plants with retrorsely (rarely antrorsely) appressed or erect hairs decurrent from the petiole margins, the hairs running out on the margins of leaves, or strigulose all around. Leaves opposite, alternate in the inflorescence, lamina usually much shorter than subtending internodes, sessile or on short petioles up to 2 mm long, dull bluish-green, glabrous except for a few hairs near the base on the margins, the lateral veins not prominent, 2-3 on each side of the midrib; lamina 8-18 x 4-5 mm, narrowly elliptic to ovate, apex acute, base rounded, margins serrulate, with 1-6 teeth on each side. Inflorescence erect, the flowers scattered down the stem. Flowers erect, Ovaries 6-15 mm long, glabrous (rarely weakly to densely strigulose), on pedicels 1-17 mm long. Floral tube 0.5-1.5 mm deep, 0.7-2.2 mm diameter, glabrous or strigulose externally. Sepals 2.0-4.5 x 0.8-1.5 mm, not keeled, glabrous or strigulose. Petals 2.8-6.0 x 1.8-4.5 mm, notch 0.7-2.0 mm deep; white, sometimes flushing pink after pollination. Anthers 0.4-0.9 x 0.25-0.5 mm, cream or yellow; filaments white, those of longer stamens 1.0-2.7 mm long, those of shorter stamens 0.6-1.6 mm long, the anthers of the longer stamens dehiscent first and shedding pollen directly on to the stigma after the flower opens. Styles 1.2-3.2 mm high, white; stigma 0.8-2.6 x 0.3-1.2 mm, white, clavate, surrounded by anthers of at least the longer and usually both sets of stamens at anthesis. Capsule 17-36 mm long, on pedicels 10-90 mm long; blue-green, glabrous (rarely densely strigulose). Seeds 0.7-1.2 x 0.3-0.6 mm, pale orange-brown to orange, obovoid or narrowly obovoid, testa finely reticulate-papillate, apex rounded; coma 5-7 mm long, white, caducous.

SIMILAR TAXA

Epilobium atriplicifolium differs from the allied *E. alsinoides* and *E. tenuipes* by having finely reticulate-papillate rather than finely reticulate seeds, and pedicels which elongate to 10-90 mm (usually 10-40 mm long) long in fruiting specimens (10-80 mm but usually 20-80 mm in *E. alsinoides*). From *E. elegans*, with which it grows it differs from *E. elegans* by its narrower leaves, smaller flowers, and longer-pedicellate condition. From *Epilobium cockayneanum* with which it also grows in the Central North Island and South Island it differs by its taller, less matted growth habit, narrower, less deeply toothed leaves (leaves of *E. cockayneanum* are broadly ovate, ovate-elliptic to ovate-oblong, 5-14 x 6-8 mm, and more deeply toothed).

FLOWERING

November - March

FRUITING

January - May

LIFE CYCLE

Minute papillate seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and rooted pieces. Dislikes humidity and prone to powdery mildew in humid climates. Inclined to be weedy.

THREATS

Not Threatened. However, *E. atriplicifolium* is seemingly scarce (apparently naturally so) north of the Waikato.

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

atriplicifolium: Leaves resembling *Atriplex*, unrelated plant

WHERE TO BUY

Not commercially available

NOTES ON TAXONOMY

Raven & Raven (1976) adopted a very conservative treatment for New Zealand *Epilobium*. In that treatment they recognised *Epilobium atriplicifolium* and *E. tenuipes* as subspecies of *E. alsinoides*. They also included with *E. alsinoides* subsp. *atriplicifolium*, *E. cockayneanum* (treated as a species here) and within subsp. *tenuipes* they merged *E. elegans* (also accepted at species rank here). Raven & Raven (1976) argued for subspecies rank and species merger on the basis of what they saw as intergrading forms between *E. atriplicifolium*, *E. cockayneanum*, *E. elegans* and *E. tenuipes* in the South Island. They did note that intergrading was not evident in the North Island, where the “major entites...are sharply distinct” but they suggested that this had to do with the effectively autogamous breeding system of these taxa, and while they accepted that intergrading forms occurred within the most “highly disturbed vegetational formation in New Zealand” (i.e. tussock grasslands) suggesting that such intergrades were not natural, they nevertheless felt justified in their highly conservative treatment. Subsequently field botanists have largely followed the unpublished views of the late Tony Druce who continued to recognise as species *E. atriplicifolium*, *E. cockayneanum*, *E. elegans* and *E. tenuipes*. For want of a thorough, multi-marker DNA-based revision of New Zealand *Epilobium*, for now at least it seems preferable to follow Druce (1993) rather than Raven & Raven (1976) whose treatment of *Epilobium*, whilst understandable for its time, seems inconsistent (see also comments under *E. cockayneanum*).

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (22 October 2012). Description adapted from Raven & Raven (1976).

REFERENCES AND FURTHER READING

- Druce, A.P. 1993: Indigenous vascular plants of New Zealand. Ninth Revision. Unpublished Checklist held at Landcare Research, Lincoln, New Zealand.
- Raven, P.H.; Raven, T.E. 1976: The genus *Epilobium* in Australasia. New Zealand DSIR Bulletin 216. Wellington, Government Printer.
- 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. 2011: *Seeds of New Zealand Gymnosperms and Dicotyledons*. Christchurch, Manuka Press.

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/epilobium-atriplicifolium/>

Epilobium brunnescens subsp. minutiflorum

COMMON NAME

creeping willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium brunnescens subsp. minutiflorum (Cockayne) P.H.Raven et Engelhorn

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIMIN

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

LIFE CYCLE

Minute papppate seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

brunnescens: Pale brown

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/epilobium-brunnescens-subsp-minutiflorum/>



Kaimanawa Range. Jan 1974. Photographer: Colin Ogle

Epilobium crassum

COMMON NAME

thick-leaved willowherb

SYNONYMS

Epilobium antipodum Petrie

FAMILY

Onagraceae

AUTHORITY

Epilobium crassum Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPICRA

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

North Island (Kaweka Ranges only). South island: along & east of main divide from St Arnaud range & Clarence & Awatere rivers to Mt Cook region.

HABITAT

Fine grained, relatively stable, moist scree above bushline; 600-1,800m elevation.

FEATURES

Leaves leathery and crowded; rarely branching.

SIMILAR TAXA

Other *Epilobium* species; *E. brevipes* and *E. petraeum*.

FLOWERING

December to February

FLOWER COLOURS

Red/Pink, White



Lake Lyndon, January. Photographer: John Smith-Dodsworth



Epilobium crassum. Photographer: John Barkla

LIFE CYCLE

Minute papitate seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

crassum: Thick

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013)

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

CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/epilobium-crassum/>

Epilobium glabellum

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium glabellum G.Forst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIGLA

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

FLOWER COLOURS

White

LIFE CYCLE

Minute pappate seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

glabellum: Hairless

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/epilobium-glabellum/>



Tutoko Valley, Fiordland. Photographer: Jesse Bythell



Mt Taranaki, December. Photographer: John Smith-Dodsworth

Epilobium macropus

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium macropus Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIMAC

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North Island (Central Volcanic Plateau and main axial ranges south), South Island (mostly easterly).

HABITAT

Montane to alpine on the margins of (and sometimes partially immersed in) mountain streams, seepages and soaks.



Mangatepopo, February. Photographer: John Smith-Dodsworth



Mount Ruapehu. Photographer: Jeremy Rolfe

FEATURES

Dense, creeping, mat-forming perennial herb of sodden ground, the stems 20-200 mm long, creeping and rooting below; stems pubescent all round with short bristly hairs. Leaves usually crowded and overlapping or shorter than the internodes they subtend, opposite, with the uppermost occasionally alternate, bright yellowish-green, not shining, paler and occasionally slightly glaucous beneath, the lateral veins not obvious, 2-3 on each side of the midrib, elliptic to narrowly ovate, acuminate at the apex, obtuse to acute at the base, 6-15 × 3-8 mm, entire or very obscurely denticulate with c.2-4 minute teeth along each margin; petioles 2-3 mm long, distinct. Flowers arising individually from the axils of the leaves. Ovaries 15-20 mm long, glabrous or sparsely clothed with short erect hairs, often purplish, on a pedicel 5-25 mm long. Floral tube 1.3-2.0 × 1.5-2.2 mm. Sepals 3.0-6.0 × 1.3-1.8 mm, often tinged purple, not keeled, chartaceous, membranous, glabrous or sparsely invested with short erect hairs. Petals 6.5-12.0 × 4.0-8.0 mm, notch 1.5-3.0 mm deep, white, very rarely flushed pink initially but flushing pink after pollination. Stamens filaments white, of two types: long (2.5-5.0 mm long) and short (1-3 mm long), Anthers 0.9-1.0 × 0.4-0.5 mm, bright yellow. Style 4.5-9.0 mm long, white but purplish near the base, stigma 1.2-2.7 × 0.7-1.6 mm, broadly clavate, held above anthers in early anthesis. Capsule 30-65 mm long, stout, glabrous, on a pedicel 10-120 mm long. Seeds 0.5-1.0 mm long, orange to orange-brown, oblong-obovate, elliptic-obovate or obovate, finely reticulate; coma 7.5-11.0 mm long, orange to orange-brown; coma 2.5-7.0 mm long, white, usually persistent.

SIMILAR TAXA

A very distinctive species easily recognised by its mat-forming growth habit and ecological preference for growing in running water. Raven & Raven (1976) suggest (on morphological grounds) a close relationship with *E. chionanthum* with which it has a superficial resemblance and both species are distinguished from all other New Zealand *epilobia* by sharing an orange to orange-brown, long persistent coma. From *Epilobium chionanthum*, *E. macropus* differs by the stems which are evenly pubescent throughout with short, erect, bristly hairs (rather than mostly glabrous but strigulose along lines decurrent from the margins of the petioles below), with only the very uppermost leaves alternate (mostly opposite rarely with a few alternate in the inflorescence), and by the fruiting pedicels 10-120 mm long (12-28 mm long in *E. chionanthum*).

FLOWERING

November- March

FLOWER COLOURS

White

FRUITING

FR:

LIFE CYCLE

Minute papate seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and rooted pieces. However to flourish it needs to be planted on the margins of streams or kept in partially immersed pots with the water changed frequently. Does not tolerate high humidity and drought. *Epilobium macropus* is a very attractive species that despite being tricky to cultivate deserves to be more widely grown.

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

macropus: Big foot

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact sheet prepared for NZPCN b: P.J. de Lange 28 August 2011. Description adapted from Raven & Raven (1976) and Webb & Simpson (2001).

REFERENCES AND FURTHER READING

Raven, P.H.; Raven, T.E. 1976: The genus *Epilobium* in Australasia. New Zealand DSIR Bulletin 216. Wellington, Government Printer.

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. 2011: Seeds of New Zealand Gymnosperms and Dicotyledons. Christchurch, Manuka Press.

CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/epilobium-macropus/>

Epilobium melanocaulon

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium melanocaulon Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIMEL

CHROMOSOME NUMBER

$2n = 36$

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North and South Islands from Rotorua and Lake Waipapa (Waikato River Hydroelectric dam) south.

HABITAT

lowland to alpine. Usually riparian, in open braided river and gravelly river beds and watercourses. Also on moraines, scree slopes, and in gravel on lake margins. Rarely in urban areas, often found in the eastern South Island growing along railway tracks.



Hawkdun range, February. Photographer: John Smith-Dodsworth



Lake Te Anau, Fiordland. Photographer: John Barkla

FEATURES

Much-branched, stoutly tap-rooted, erect, perennial herb forming shrublets 0.1-0.3 m tall. Branches arising from the base (rarely above). Stems purple-black, maroon (sometimes green), with dense strigulose lines decurrent from the margins of the petioles. Leaves sessile to subsessile, mostly opposite towards base, alternate in or near inflorescence, dark dull green, purple-black or maroon, midvein scarcely visible to prominently so, lateral veins not evident, 1-3 on each side of midrib; petioles if present 1-2 mm long; lamina 3-12(-20) x 1-4(-6) mm, narrowly elliptic to elliptic, apex acute (often apiculate), base attenuate, margins remotely, coarsely serrate, teeth 2-4 on each side. Inflorescence erect. Flowers erect. Ovaries 6-14 mm long, glabrous, green to purple-black, sessile or on pedicels 2 mm long. Floral tube 0.2-0.6 x 1.0-1.4 mm, glabrous. Sepals not keeled, 2-8-4.5 x 0.9-1.1 mm. Petals 5.0-6.5 x 2.3-3.0 mm, white, flushed pink after pollination, the notch 0.5-1.0 mm deep. Anthers 0.4-0.5 x 0.25-0.3 mm, yellow; filaments of the longer stamens 1.5-2.3 mm long, those of shorter ones 0.8-1.5 mm long, the anthers of the longer stamens shedding pollen directly on the stigma at anthesis. Style 2.1-2.6 mm high, white; stigma 0.8-1.9 mm x 0.45-0.9 mm, short-clavate, surrounded by the anthers of the longer stamens at anthesis. Capsules 18-38 mm long, brown, glabrous, sessile or on pedicels up to 9 mm long. Seeds 0.9-1.1 mm long, purple-brown, orange or orange-brown usually tinged purple, obovate, finely reticulate-mamillate; coma 4.0-6.5 mm long, white, caducous.

SIMILAR TAXA

Epilobium melanocaulon is unlikely to be confused with any other *Epilobium* in New Zealand, indigenous or otherwise. The densely branched, erect, shrubby growth habit, and purple-black stems; coarsely toothed, dark green, purple-black or maroon leaves and dark brown capsules are diagnostic of this species.

FLOWERING

December - April

FLOWER COLOURS

Violet/Purple, White

FRUITING

February - June

LIFE CYCLE

Minute papitate seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

An attractive species well suited to a rocky garden situation. Excellent as a pot plant for terrace situation. Inclined to be short-lived so best grown from fresh seed or cuttings and treated as an annual. In good conditions will self-establish but not inclined to be weedy like many other epilobia.

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

melanocaulon: Black stemmed

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (28 October 2012). Description adapted from Raven & Raven (1976) and Webb & Simpson (2001).

REFERENCES AND FURTHER READING

Raven, P.H.; Raven, T.E. 1976: The genus *Epilobium* in Australasia. New Zealand DSIR Bulletin 216. Wellington, Government Printer.

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. 2011: *Seeds of New Zealand Gymnosperms and Dicotyledons*. Christchurch, Manuka Press.

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/epilobium-melanocaulon/>

Epilobium nummulariifolium

COMMON NAME

creeping willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium nummulariifolium R.Cunn

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPINUM

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand. North Island (throughout), South Island (mostly in the eastern half), Chatham Islands. Also recorded from Sardinia, Europe

HABITAT

Open disturbed ground in forest and grasslands from coastal situations to montane extending occasionally into subalpine habitats. This species is also a common plant of urban areas, wasteland, and plant nurseries where it can be an aggressive weed.



Dehiscent capsule. Stokes Valley, Lower Hutt.
Photographer: Jeremy Rolfe



Dehiscent capsule. Stokes Valley, Lower Hutt.
Photographer: Jeremy Rolfe

FEATURES

Loosely matted, creeping perennial herb forming patches up to 1 m diameter; stems pale purplish, with strigulose hairs running down the lines decurrent from the margins of the petioles. Flowers arising individually from the leaf axils, the stems continuing to grow and root beyond the point where flowers are produced. Leaves opposite, membranous, yellowish-green, usually with red margins and 1-3(-4) inconspicuous lateral veins on either side of the midrib; lamina 3.0-13.0 × 3-11.0 mm, broadly ovate to obovate, obtuse or rounded at apex, rounded to truncate at base, margins remotely and shallowly serrulate with 2-11 teeth on either side; petiole distinct, 1-7 mm long. Flowers nodding, falling before full pedicel elongation is achieved. Ovaries densely grey-strigulose, 6-15-20 mm long, on a strigulose pedicel 7-35 mm long. Floral tube 0.4-1.1 mm deep, 0.6-1.1 mm diameter, sparsely strigulose without. Sepals not keeled, sparsely strigulose, 1.7-2.1 × 0.4-0.9 mm. Petals white, 1.9-3.4 × 1.7-2.1 mm, notch 0.6-0.8 mm deep. Anthers yellow, 0.5-0.6 × 0.3-0.4 mm, filaments of longer stamens 0.9-1.3 mm long, those of shorter 0.4-1.0 mm, both shedding pollen directly onto stigma at or before anthesis. Style white 1.0-1.5 mm long; stigma white, clavate, 1.0-1.8 × 0.5-0.7 mm, surrounded by anthers at anthesis. Capsule densely grey-strigulose, (10-)15-40 mm long, borne on a strigulose pedicel 23-130 mm long. Seeds brown, 0.7-1.0 × 0.2-0.4 mm, obovoid. minutely papillose; coma 4.0-5.5 mm long, readily detaching or persistent.

SIMILAR TAXA

Epilobium nummularifolium could be confused with *E. brunnescens*. *Epilobium nummularifolium* is best distinguished from *E. brunnescens* by the capsules which are copiously invested in grey-strigillose hairs rather than glabrate to sparsely hairy. However, the leaves are also very distinctive; those of *E. nummularifolium* are yellow-green usually with red-margins, broadly ovate to obovate and distinctly toothed, bearing 2-11 pairs of teeth on the leaf margins. The leaves of *Epilobium nummularifolium* are membranous, so they wilt readily on picking, whereas those of *E. brunnescens* are more fleshy so less inclined to wilt quickly. The leaves of *Epilobium brunnescens* are uniformly dark green, often tinged red or brown, ovate to broadly ovate and usually entire, though sometimes weakly toothed, and then bearing 1-2(-4) pairs of teeth on each margin. In *Epilobium brunnescens* the pedicel usually completes elongation before the flower drops off, whereas the flowers drop before pedicel elongation has completed in *E. nummularifolium*.

FLOWERING

September to May

FLOWER COLOURS

White

FRUITING

October to June

PROPAGATION TECHNIQUE

Easily grown from seed and rooted pieces. Inclined to become weedy, often an aggressive pest plant in cultivation. A common 'accidental' weed transported in the soil beneath nursery raised plants.

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

nummulariifolium: Coin leaved

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (30 December 2019). Description adapted from Raven & Raven (1976).

REFERENCES AND FURTHER READING

Raven, P.H.; Raven, T.E. 1976: The genus *Epilobium* in Australasia. New Zealand DSIR Bulletin 216. Wellington, Government Printer.

CITATION

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

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

MORE INFORMATION

Epilobium porphyrium

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium porphyrium G.Simpson

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPIPOR

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

FLOWER COLOURS

Red/Pink

LIFE CYCLE

Minute pappate seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

porphyrium: Purple-red, the colour of porphyry

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/epilobium-porphyrium/>



Craigieburn, Canterbury. Photographer: Jane Gosden



Craigieburn, Canterbury. Photographer: Jane Gosden

Epilobium pycnostachyum

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium pycnostachyum Hausskn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EIPYCY

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

FLOWER COLOURS

Red/Pink, White

LIFE CYCLE

Minute pappate seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

pycnostachyum: Dense spiked

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/epilobium-pycnostachyum/>



Island saddle, January. Photographer: John Smith-Dodsworth



Black Birch Range. Jan 2006. Photographer: Colin Ogle

Epilobium tasmanicum

COMMON NAME

willowherb

FAMILY

Onagraceae

AUTHORITY

Epilobium tasmanicum Hausskn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EPITAS

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous: New Zealand: South Island (from Nelson to Southland). Australia (New South Wales and Tasmania)

HABITAT

Alpine in moist places in fellfield, herbfield at the bases of cliff faces or in the shelter of rocks. Also inhabiting fine-grained scree, often in the vicinity of areas of snow-melt or glacial cirques.

FEATURES

Perennial, matted, creeping alpine herb, stems rooting at nodes, much interwoven, or with erect reddish stems up to 150 mm tall; stems glabrous or with lines of fine strigulose hairs decurrent from the margins of the petioles. Leaves mostly opposite, alternate in the inflorescence, longer than the internodes they subtend, glossy, the lateral veins barely visible, 1-3 on each side of the midrib; petiole 1-2 mm long, usually appressed to main stem; lamina 6-20 × 2-55 mm, bright green, narrowly elliptic or elliptic, base attenuate, apex acute to subentire, margins serrulate, with 3-5 teeth on each side, or subentire. Inflorescence nodding in erect forms, the flowers scattered well down the stem. Flowers erect. Ovaries 9-12 mm long, glabrous, pedicels 1.5-5.0 mm. Floral tube 0.5-1.1 × 1.2-2.2 mm, glabrous. Sepals 1.7-3.5 × 0.9-1.4 mm. not keeled, glabrous, often reddish-margined. Petals 3.3-5.0 × 1.5-3.6 mm, the notch 0.5-1.1 mm deep. white. Stamen filaments white of two types: long (1.0-2.5 mm long) and short (0.5-1.8 mm long). Anthers 0.4-0.45 × 0.3-0.4 mm, yellow. Style 1.0-1.6 mm long, white; stigma 0.9-2.2 × 0.5-0.7 mm, white, clavate. Capsule 8-22 mm long, bright-green, ± succulent, glabrous, on a pedicel 2-40 mm long. Seeds 0.9-1.2 mm long, orange to orange-brown, obovate, apex rounded, base subacute, finely papillate; coma 3-5 mm long, white, caducous.



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



Hector Mountains. Photographer: John Barkla

SIMILAR TAXA

Epilobium tasmanicum is distinguished from other New Zealand epilobia by the restriction to the South Island where it inhabits alpine areas only; bright green, narrowly elliptic or elliptic Leaves that are 6-20 × 2-55 mm with 3-5 teeth on each side; by the nodding inflorescence; flowers with sepals 1.7-3.5 × 0.9-1.4 mm; white petals, and glabrous ovaries; and by the bright-green, glabrous, somewhat fleshy 8-22 mm long capsule.

FLOWERING

December - March

FLOWER COLOURS

White

FRUITING

January - April

LIFE CYCLE

Minute papitate seeds are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and rooted pieces. Best grown in a rockery or alpine house. Dislikes humidity and warmth.

ETYMOLOGY

epilobium: From the Greek epi- 'upon' and lobos 'a pod', the flowers appearing to be growing on the seed pod.

tasmanicum: Of or from Tasmania (Australia); named in honour of 17th century Dutch navigator Abel Janszoon Tasman (1603-1659)

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (31 August 2011). Description adapted from Raven & Raven (1976) and Webb & Simpson (2001).

REFERENCES AND FURTHER READING

Raven, P.H.; Raven, T.E. 1976: The genus *Epilobium* in Australasia. New Zealand DSIR Bulletin 216. Wellington, Government Printer.

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. 2011: *Seeds of New Zealand Gymnosperms and Dicotyledons*. Christchurch, Manuka Press.

CITATION

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

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/epilobium-tasmanicum/>

Euphrasia revoluta

COMMON NAME

eyebright

FAMILY

Orobanchaceae

AUTHORITY

Euphrasia revoluta Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EUPREV

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North and South Islands, Ruahine and Tararua Ranges southwards.

HABITAT

Subalpine boggy and open places, tussock-grassland, and herb-fields.

FEATURES

Low tufted perennial herb sometimes with woody stock up to 2 mm diameter; stems slender, rooting at nodes and stoloniferous, branches numerous, erect, up to approximately 50 mm tall, slender to filiform, white-pubescent. Leaves sessile, usually rather close-set, 2-10 x 1-5 mm, narrow- to rhomboid-cuneate with 1 pair of small acute teeth below large triangular or rounded terminal lobe, glabrous, margins thickened and revolute. Flowers single or few at tips of branches, subsessile or on white-pubescent pedicels up to approximately 5 mm long. Calyx 5-8 mm long, white-pubescent, evenly or subevenly divided approximately $\frac{1}{3}$ way; lobes acute to subacute, margins and midribs thickened and reddish. Corolla white, 10-15 mm long and diameter; tube usually much longer than calyx; lobes of lower lip 3-5 mm wide, entire, or shallowly emarginate. Anthers red-brown, margins hairy, awns unequal, stout. Capsule more or less equal to calyx, approximately 6-7 x 3-4 mm, oblong to obovate, sparsely setose at apex; seeds numerous, 1-1.5 mm long.

SIMILAR TAXA

See 'Taxonomic Notes' below.

FLOWERING

(November-) December – February (-April).



Mt Holdsworth, February. Photographer: John Smith-Dodsworth

FLOWER COLOURS

White, Yellow

FRUITING

December - April

LIFE CYCLE

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

ETYMOLOGY

euphrasia: Eye-medicine

revoluta: Rolled back from margins or apex

TAXONOMIC NOTES

Allan (1961) notes: Plants varying markedly in size, habit, leaf-shape, pubescence, and floral characters have hitherto been included under this name, but those matching the type constitute a well-defined and easily recognizable taxon to which the name is here restricted. Most Nelson specimens in *E. revoluta* folders belong to the closely related *Euphrasia townsonii*, which differs most obviously in long pedicels and glandular-hairy calyx. Other plants sometimes included are referable rather to *Euphrasia laingii*, while *Euphrasia drucei* and *Euphrasia petriei* are two further segregants from the complex.

ATTRIBUTION

Fact sheet prepared for NZPCN by M.D. Ward (11 November 2020) Description adapted from Allan (1961).

REFERENCES AND FURTHER READING

Allan, H. H. 1961. Flora of New Zealand. Volume 1. Wellington: Government Printer. Page 854.

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): *Euphrasia revoluta* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/euphrasia-revoluta/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/euphrasia-revoluta/>

Euphrasia zelandica

COMMON NAME

eyebright

FAMILY

Orobanchaceae

AUTHORITY

Euphrasia zelandica Wettst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EUPZEL

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North to South Islands from Mount Hikurangi southwards.

HABITAT

Montane to subalpine boggy to dry open places

FEATURES

Small, succulent-like annual herb 20-100 mm tall, simple, or branched from base, sometimes minute and flowering when less than 10 mm tall; branches ascending, bifariously white-pubescent, occasionally with short glandular hairs towards tips. Leaves sessile, usually rather distant in lower parts of branches and crowded towards tips, sometimes forming small rosette, approximately 4-9 x 2-6 mm, ovate to suborbicular or flabellate with 2-5 pairs of narrow acute teeth, cuneately narrowed to base, margins thickened and revolute, upper surface clad in short flattened white hairs sometimes mixed with short glandular hairs, occasionally nearly glabrous, lower surface glabrous or sparsely hairy. Flowers, clustered at tips of branches, subsessile or on pedicels up to 4 mm long, sometimes pedicels longer, especially in fruit. Calyx (4)-5-(6) mm long, sometimes much enlarged in fruit, pubescent as leaves, divided 1/3 to nearly 1/2 way; lobes acute, margins and midveins thickened and reddish. Corolla white, 6-10-(12) mm long; tube narrow, slightly to much longer than calyx; lobes of lower lip 1-2 mm wide, entire, obtuse to subacute. Anthers yellow to golden brown, margins glabrous or nearly so, awns slender, approximately equal. Capsule greater than or approximately equal to calyx, 4-8 x 3-5 mm, obovate, setose at apex; seeds numerous, 1-1.5 mm long.



Kaimanawa range, February. Photographer: John Smith-Dodsworth



Reporoa Bog, NW Ruahine Range. Photographer: Colin Ogle

SIMILAR TAXA

Similar in appearance to *Euphrasia australis* which is generally larger in stature than *E. zelandica*, up to 200 mm high compared to 100 mm, having a stouter appearance. The flower pedicels are shorter on *E. zelandica*, up to 4 mm, compared to up to 10 mm in *E. australis*. *E. australis* has longer sparse glandular hairs compared to, generally many shorter white hairs on *E. zelandica*. *E. australis* has a limited range being restricted to West Otago and Fiordland, *E. zelandica* has a greater distribution range.

FLOWERING

October - April

FLOWER COLOURS

White, Yellow

FRUITING

February - April

LIFE CYCLE

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

ETYMOLOGY

euphrasia: Eye-medicine

TAXONOMIC NOTES

Allan (1961) notes, although extreme forms appear very distinct in *E. zelandica* and *E. australis* the two species are not always satisfactorily separable; the size differences may be largely epharmonic, and elongated plants with pedicels shorter than leaves sometimes have the pubescence of *E. zelandica*.

Crossing appears to occur quite freely between *E. cockayneana* and *E. zelandica* where they occur together, e.g. at Arthur Pass, where plants combining characters of both species sometimes out-number pure individuals of *E. zelandica*. The putative hybrids are intermediate in habit with white to cream corollas of intermediate size and a mingling of the characteristic leaf-pubescence of both species. Even plants superficially closely resembling *E. zelandica* may have the stiff appressed scabridity of *E. cockayneana* on the leaf-margins.

ATTRIBUTION

Fact sheet prepared for NZPCN by M.D. Ward 2 (November 2020) Description adapted from Allan (1961).

REFERENCES AND FURTHER READING

Allan, H. H. 1961. Flora of New Zealand. Volume 1. Wellington: Government Printer. Pages 856-857.

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): *Euphrasia zelandica* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/euphrasia-zelandica/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/euphrasia-zelandica/>

Forstera tenella

SYNONYMS

Forstera bidwillii Hook.f. var. *bidwillii*; *Forstera bidwillii* var. *densifolia* Mildbr.; *Forstera truncatella* Colenso; *Forstera major* Colenso

FAMILY

Stylidiaceae

AUTHORITY

Forstera tenella Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

FORTEN

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

FLOWER COLOURS

White

LIFE CYCLE

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

ETYMOLOGY

forstera: Named after Johann Reinhold Forster and his son Johann Georg Adam Forster who were 18th century naturalists on James Cook's second voyage

tenella: Delicate

REFERENCES AND FURTHER READING

Glenny, D. 2009: A revision of the genus *Forstera* (Stylidiaceae) in New Zealand. *New Zealand Journal of Botany* 47: 285-315.

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/forstera-tenella/>



Mt Holdsworth, February. Photographer: John Smith-Dodsworth



Turoa, Ruapehu. Photographer: John Smith-Dodsworth

Gaultheria crassa

SYNONYMS

Gaultheria rupestris var. *parvifolia* Hook.f., *Gaultheria rupestris* var. *humilis* G.Simpson

FAMILY

Ericaceae

AUTHORITY

Gaultheria crassa Allan

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

GAUCRA

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Bushy sprawling shrub bearing small oval leathery toothed leaves on hairy twigs inhabiting mountains from the Ruahine south. Hairs on twigs dark, often mixed with shorter paler hairs. Flowers white, bell-shaped, in clusters to 4cm long at tip of twigs. Leaves 10-15mm long by 5-7mm wide. Fruit a dry capsule.

FLOWER COLOURS

White

LIFE CYCLE

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

ETYMOLOGY

gaultheria: Named after Jean François Gaultier of Quebec (6 Oct 1708-10 July 1756) by the Scandinavian Pehr Kalm in 1748.

crassa: Thick, fleshy, dense or fat

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



L. Tennyson, January. Photographer: John Smith-Dodsworth



Gaultheria crassa, Tasman Valley. Photographer: John Barkla

<https://www.nzpcn.org.nz/flora/species/gaultheria-crassa/>

Gaultheria depressa var. depressa

SYNONYMS

Gaultheria antipoda var. *depressa* Hook.f.

FAMILY

Ericaceae

AUTHORITY

Gaultheria depressa Hook.f. var. *depressa*

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

GAUDVD

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2018 | Data Deficient

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Low-growing shrub bearing rounded leathery leaves that have obvious small hairs on margin. Twigs with dark bristly hairs. Leaves 5-10mm long by 4-6mm wide. Flowers white, bell-shaped, solitary at base of leaf. Fruit white to red, 6-10mm wide, lobed.

LIFE CYCLE

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

ETYMOLOGY

gaultheria: Named after Jean François Gaultier of Quebec (6 Oct 1708-10 July 1756) by the Scandinavian Pehr Kalm in 1748.

depressa: From the Latin *depremere* 'to press down', meaning to be flattened vertically, often referring to a plant's habit

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/gaultheria-depressa-var-depressa/>



Mt Burns, February. Photographer: John Smith-Dodsworth

Gaultheria parvula

SYNONYMS

Pernettya nana Colenso

FAMILY

Ericaceae

AUTHORITY

Gaultheria parvula D.J.Middleton

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

GAUPAR

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Creeping woody herb to 30cm or so wide bearing closely-spaced small oval thick narrow leaves with single bell-shaped small white flowers scattered among plant. Twigs not visible. Leaves with paler veins contrasting with the brownish leaf. Fruit 3-4mm wide, white to red. Inhabiting mountains of the eastern South Island.

FLOWER COLOURS

White

LIFE CYCLE

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

ETYMOLOGY

gaultheria: Named after Jean François Gaultier of Quebec (6 Oct 1708-10 July 1756) by the Scandinavian Pehr Kalm in 1748.

parvula: Very small, insignificant

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/gaultheria-parvula/>



Hakataramea pass, November. Photographer: John Smith-Dodsworth



Ahuriri Valley. Photographer: John Barkla

Gentianella bellidifolia

COMMON NAME

Gentian

SYNONYMS

Gentiana bellidifolia Hook.f., *Gentiana bellidifolia* var. *australis* Petrie ex Cheeseman, *Gentiana flaccida* Petrie, *Chionogentias bellidifolia* (Hook.f.) L.G.Adams, *Oreophylax bellidifolius* (Hook.f.) Á.Löve nom. inval.

FAMILY

Gentianaceae

AUTHORITY

Gentianella bellidifolia Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

GENBEL

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand North and South Islands from Pureora south.

HABITAT

Subalpine to alpine in tussock grasslands, herbfields and fellfields



Umukarikari Range, Kaimanawa. Mar 2008.
Photographer: Matt Renner



Mangatepopo, January. Photographer: John Smith-Dodsworth

FEATURES

Plants polycarpic, height in flower 80–370 mm. Root 1.2–6.0 mm diameter at stem base. Caudex unbranched or branched, 15–90 mm long, stolons absent. Flowering stems lateral only, 1–13 per plant, largest flowering stem 1.0–3.2 mm diameter, green, tinted purple-black, or bronze, lateral flowering stems erect or decumbent, stem leaves 2–4 pairs per stem, lowest pedicels from halfway up flowering stem or near apex of flowering stem. Rosette of leaves present and distinct from flowering stem leaves, leaves narrowly elliptic, elliptic, rhomboid, or orbicular, 11.0–140.0 × 4.0–12.5 mm, green or tinted purple-black, channelled, larger leaves V-shaped, leaf apex acute to rounded; petiole usually distinct, 7.0–27.0 × 0.8–4.6 mm. Flowering stem leaves elliptic to narrowly ovate. Pedicels 1 per leaf axil, 1–48 mm long, 0.8–1.9 mm diameter, 0.5–0.8 mm diameter when dry. Flowers 1–45 per plant, 12–23 mm long, rarely female. Calyx 8.2–13 mm long; lobes 3.8–8.3 mm long, 1.7–4.2 mm wide at base, green or green tinted purple-black, crimson, or brown, plane, lobe apices acute, margins convex, smooth or minutely denticulate, hairs at calyx–corolla fusion line present or absent, hairs at lobe sinuses few. Corolla 15.6–22.6 mm long, white (in the South Island) or with veins coloured grey-violet (in the North Island), tube 3.4–6.0 mm long; lobes 11.1–17.0 × 6.3–12.4 mm, hairs above sinus present; nectary 0.4–1.4 mm from corolla base. Filaments 7.7–12.5 mm long from corolla base, 0.6–2.0 mm wide. Anthers 1.8–3.0 mm long, anther wall blue-black, mouth yellow, extrorse at anthesis. Stigma colourless. Ovules 16–68 per ovary, ovary yellow in maturity, rarely turning blue. Capsule 17–24 mm long.

SIMILAR TAXA

Recognised by the flowering stems arising from below the apex of the leaf rosettes; polycarpic flowering habit; narrowly elliptic, elliptic, rhomboid, or orbicular green or purple-black tinted leaves (11–142 mm long); stem leaves sessile and smaller than rosette leaves; large white flowers. Closest to *G. amabilis* from which differs by its taller growth habit, unspotted leaves narrower calyx lobes 1.7–4.4 mm (cf. 3.1–4.7 mm wide *G. amabilis*), and narrower filaments (1.2 mm cf. 1.7 mmwide).

FLOWERING

February – April

FLOWER COLOURS

Grey, White

FRUITING

March - June

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)

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-bellidifolia/>