

# Epilobium alsinoides

## COMMON NAME

willowherb

## SYNONYMS

*Epilobium alsinoides* A.Cunn. subsp. *alsinoides*

## FAMILY

Onagraceae

## AUTHORITY

*Epilobium alsinoides* A.Cunn.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

EPIALS

## CHROMOSOME NUMBER

2n = 36

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

A perennial herb. Low, delicate and matted in form. Covered everywhere with strigulose pubescence. Found in grassland from sea level to low alpine. Fairly inconspicuous, due to its low stature and often sparse foliage.

## DISTRIBUTION

Endemic. New Zealand: North and South Islands (scarce in East Coast of the North Island, and apparently absent in the South Island, south of Nelson and northern Marlborough).

## HABITAT

Sea level to low alpine. Usually in open grassland or on partially shaded, seasonally damp eroding banks

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).



Local herb in damp gully, Waimata Gisborne.  
Photographer: Marley Ford, Date taken:  
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Local herb in damp gully, Waimata Gisborne.  
Photographer: Marley Ford, Date taken:  
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## DETAILED DESCRIPTION

Delicate, decumbent, matted, much-branched perennial herb up to 200 mm tall, bearing numerous leafy stolons arising from the base; plants densely strigulose-pubescent, hairs usually antrorsely appressed. Leaves on distinct petioles 1-2 mm long, opposite, alternate in the inflorescence, dull bluish-green, occasionally with a few hairs near the base on the margins, the lateral veins not prominent, 2-3 on each side of the midrib; lamina shorter than subtending internodes, 3.0-8.0 x 2.0-5.5 mm, ovate, with 2-4 indistinct teeth on each side (rarely entire), apex acute to obtuse, base rounded. Inflorescence erect, the flowers scattered down the stem. Flowers erect, Ovaries 6-15 mm long, densely strigulose, on pedicels 25-50 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 0.6-1.5 mm long, those of shorter stamens 0.3-0.8 mm long, the anthers of the longer stamens dehiscent first and shedding pollen directly on to the stigma after the flower opens. Style 1.0-1.7 mm high, white; stigma 1.0-1.5 x 0.4-0.65 mm, white, clavate, surrounded by anthers of at least the longer and usually both sets of stamens at anthesis. Capsule 25-30 mm long, on pedicels 10-60 mm long; blue-green, densely strigulose. Seeds 0.6-1.0 x 0.2-0.3 mm, pale orange-brown or orange, oblong-obovate, obovate, testa finely reticulate, apices rounded; coma 4.5-7.0 mm long, white, caducous.

## SIMILAR TAXA

*Epilobium alsinoides* is most often mistaken for the allied *E. tenuipes*, and occasionally *E. atriplicifolium*, both of which co-exist with the species across much of its range. *Epilobium alsinoides* differs from the allied *E. atriplicifolium* by having finely reticulate rather than papillose seeds, and pedicels which elongate to 10-80 mm (usually 20-80 mm long) long in fruiting specimens (10-90 mm but usually 10-40 mm in *E. atriplicifolium*). The leaves of *E. atriplicifolium* can sometimes have hairs running up their margins, but *E. alsinoides* is not known to share this feature. From *E. tenuipes*, *E. alsinoides* is separated by the ovate rather than narrowly elliptic or linear leaves, which are typically shorter than the internodes they subtend. In *Epilobium tenuipes* the mature capsules are usually conspicuously elevated above the leafy stems while they are much less so in *E. alsinoides*. Unlike *E. tenuipes*, *E. alsinoides* has white looking strigulose hairs covering the capsule and sepals.

## FLOWERING

November - January

## FLOWER COLOURS

White

## FRUITING

January - May

## 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. alsinoides* 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.

**alsinoides:** From the Greek alsos 'grove' often the habitat of chickweeds, meaning like chickweed

## 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.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (22 October 2012). Description adapted from Raven & Raven (1976) and Webb & Simpson (2001).

## 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.
- Webb, C.J.; Simpson, M.J.A. 2011: Seeds of New Zealand Gymnosperms and Dicotyledons. Christchurch, Manuka Press.

## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

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