

# Epilobium pallidiflorum

## COMMON NAME

tarawera, swamp willowherb

## FAMILY

Onagraceae

## AUTHORITY

*Epilobium pallidiflorum* A.Cunn.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

EPIPAL

## CHROMOSOME NUMBER

2n = 36

## CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Robust rhizomatous perennial herb 0.25–1.4 m tall, often well branched from the base and above,

## DISTRIBUTION

Indigenous. New Zealand: North, South and Chatham Islands. Also Australia (New South Wales, Victoria, South Australia, Tasmania)

## HABITAT

Coastal to montane (but mostly coastal and lowland) in swamps and fens or along the banks of slow flowing streams, rivers, ponds, lake margins and around lagoons. Usually in relatively open sites growing amongst sedges (*Carex* spp.), rushes (*Juncus* spp.) and especially raupo (*Typha orientalis*).

## WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).



*Epilobium pallidiflorum*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



*Epilobium pallidiflorum*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## DETAILED DESCRIPTION

forming leafy stolons from near the base that become evident in relatively open sites; plants strigulose, densely so in the inflorescence, the stems strigulose all round or rarely only on the elevated lines running down from the margins of the petioles. Leaves mostly opposite, alternate in and near the inflorescence, dark green, somewhat shining, minutely strigulose along the margins and veins, the lateral veins prominent, usually 4 on each side of the midrib, narrowly lanceolate to lanceolate, attenuate at the apex, attenuate to acute at the base 30–800 × 5–13 mm, serrulate, with usually 8–28 teeth on each side subsessile. Inflorescence gracefully nodding to one side. Flowers erect. Ovaries densely strigulose, 15–30mm long, on a pedicel 4 × 10 mm long. Floral tube 1.3–2.0 × 1.5–2.8 mm, bearing a conspicuous ring of long hairs within. Sepals keeled, 4.5–8.0 × 1.3–2.0mm, strigulose. Petals 7.5–14.0 × 5.0–10.0 mm, notch 1.0–2.8 mm, deep white, often flushed with pink after fertilisation. Anthers 1.2–1.5 × 0.6–0.8 mm, cream; filaments of longer stamens 3.0–6.5 mm long, those of shorter stamens 1.5–3.5 mm, white. Style, 4.5–9.15 mm long, white, usually with scattered long hairs near the base; stigma 2.5–4.4 × 1.0–1.8 mm, white, clavate, obscurely 4-lobed at the summit, surrounded by the anthers of the longer stamens or held well above them at anthesis. Capsule 45–95 mm long, on pedicel 10–20 mm long. Seeds 0.9–1.0 × 0.4–0.45 mm, brown, papillose, obovoid, coma 5–7 mm long, white or straw-coloured, detaching readily.

## SIMILAR TAXA

A distinctive species that is unlikely to be confused with any other indigenous or naturalised *Epilobium* present in New Zealand. *Epilobium pallidiflorum* is easily recognised by the tall, erect, well branched stems that may be up to 1.4 m tall; narrowly lanceolate to lanceolate leaves; a stem indumentum of even length glandular hairs; inflorescences with the buds nodding and when flowering with the white flowers mostly erect; shallowly 4-lobed stigma; conspicuously pedicellate capsules; possession of an ovary covered in appressed, strigillose eglandular hairs; and by the seeds which are 0.9–1.0 × 0.4–0.45 mm, and which lack a cellular rim, and are evenly papillose (but with papillae not in lines)

## FLOWERING

November - May

## FLOWER COLOURS

Violet/Purple, White

## FRUITING

December - June

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Easily grown from fresh seed and rooted pieces. Does best when planted into a swamp or within a pot partially immersed in a pond. Although flowering plants are reasonably attractive *Epilobium pallidiflorum* is at best a plant for a specialist native plant grower because it is inclined to get weedy. *Epilobium pallidiflorum* is however, an excellent plant to establish within wetland restoration plantings where it is ideally suited to the conditions and will have room to spread.

## ETYMOLOGY

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

**pallidiflorum:** From the Latin pallidus 'pale' and florus 'flower', meaning pale-flowered

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 22 August 2011. 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.

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

### **NZPCN FACT SHEET CITATION**

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

### **MORE INFORMATION**

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