

# Euphrasia petriei

## COMMON NAME

eyebright

## SYNONYMS

Formally grouped in *Euphrasia revoluta* Hook. f.

## FAMILY

Orobanchaceae

## AUTHORITY

*Euphrasia petriei* Ashwin

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

EUPPET

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. South Island, mountains of main divide from Arthur's Pass to western Otago and Fiordland.

## HABITAT

Subalpine open and rocky places.

## DETAILED DESCRIPTION

Tufted perennial herb sometimes arising from woody stock; stems woody at base, much-branched, prostrate or decumbent, rooting at nodes, branches erect, 20–80 (–120) mm tall, bifariously or occasionally uniformly pubescent. Leaves sessile, crowded or occasionally distant, 5–10 (–15) x 3–6 (–8) mm, obovate-cuneate to broadly obovate or suborbicular, unequally 3-lobed at tip with obtuse to subacute terminal lobe, or more evenly and acutely 3–5 (–7) toothed, surfaces glabrous, margins thickened, sometimes ciliate with glandular or non-glandular hairs. Flowers few clustered at tips of branches on short hidden pedicels, or in more elongated raceme with obvious pedicels sometimes equal to leaves. Calyx 5–9 mm long, usually glandular-hairy and white-pubescent, sometimes almost glabrous, evenly or subevenly divided  $\frac{1}{4}$ – $\frac{1}{3}$  way. Corolla white, 8–12–20 mm long and diameter; tube longer than calyx; lobes of lower lip up to 8 mm wide and emarginate or not greater than 4 mm wide and entire. Anthers red-brown, margins hairy, awns usually slightly unequal. Capsule less than or equal to calyx, 4–8 x 3.5–5 mm, more or less oval, glabrous; seeds numerous.



Temple Basin, February. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Hector Mountains. Photographer: John Barkla, Licence: CC BY.

## SIMILAR TAXA

The rather variable range of forms are similar in habit to *Euphrasia revoluta* or *Euphrasia laingii* but differ distinctly from both in the shape of the leaves and the glandular pubescence of the calyx. In this latter character and in habit they resemble *Euphrasia townsonii* but differ from that species in leaf-shape and short pedicels. See 'Taxonomic Notes' below for further information.

## FLOWERING

November – February.

## FLOWER COLOURS

White

## FRUITING

December – March.

## LIFE CYCLE

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

## ETYMOLOGY

**euphrasia:** Eye-medicine

**petriei:** Named after Donald Petrie (1846 -1925), Scottish born Otago botanist

## TAXONOMIC NOTES

Flower-size varies greatly and can be used to divide the species into 2 more or less geographically separated forms:

In Canterbury and north-west Otago corollas are usually exceptionally large, (10-) 15-20 mm long and diameter, with lobes of lower lip 4-8 mm wide, bluntly expanded at tip and emarginate. Leaves are sometimes densely ciliate, and the plants may be up to 120 mm tall. This form (which includes the type) often occurs in company with *E. revoluta sensu stricto* and many mixed collections have been made. Even if the distinctive glandular pubescence is absent *E. petriei* is usually easily separated by its very differently shaped leaves, larger flowers, and stouter habit. However, occasionally specimens combine characters of both species and hybridism may be a factor contributing to the variability of *E. petriei* in this part of its range.

In Fiordland and western Otago south of approximate latitude 44° corollas are much smaller, approximately 8-12 mm long and diameter, with lobes of lower lip only 2-4 mm wide and entire. Leaves are always glabrous and the plants rarely greater than 50 mm tall, though an anomalous collection from Clinton Saddle referred by Petrie to *Euphrasia australis* consists of luxuriant plants up to 100 mm tall with distant leaves and long pedicels. Dwarf densely tufted forms which have been collected on the Hector Mountains and Mount Pisa appear very distinct but are probably only epharmonic modifications. This form could receive varietal recognition, but as there is a possibility that Hooker's *Euphrasia antarctica* var. *major* and/or var. *grandiflora* belong here no new epithet is given.

## ATTRIBUTION

Fact sheet prepared for NZPCN by M.D. Ward (9 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 855.

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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New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/euphrasia-petriei/> (Date website was queried)

## MORE INFORMATION

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