

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

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North Island, South Island from Mount Hikurangi southwards.

HABITAT

Montane to subalpine boggy to dry open places

WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).



Kaimanawa range, February. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Reporoa Bog, NW Ruahine Range. Photographer: Colin C. Ogle, Licence: CC BY-NC.

DETAILED DESCRIPTION

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.

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*. *Euphrasia australis* has longer sparse glandular hairs compared to generally many shorter white hairs on *E. zelandica*. *Euphrasia australis* has a limited range being restricted to West Otago and Fiordland, whereas *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's 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.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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