Euphrasia wettsteiniana

COMMON NAME
eyebright

SYNONYMS
Anagosperma dispermum Wettstein, Euphrasia disperma (Hook, f.) Cheeseman 1906, Siphonidium longiflorum Armstrong, Euphrasia longiflora M. Vahl, Euphrasia longiflora Kirk.

FAMILY
Orobanchaceae

AUTHORITY
Euphrasia wettsteiniana Du Rietz

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

NVS CODE
EUPWET

CURRENT CONSERVATION STATUS
2017 | Threatened – Nationally Vulnerable | Qualifiers: RR

PREVIOUS CONSERVATION STATUSES
2012 | Threatened – Nationally Vulnerable | Qualifiers: DP
2009 | At Risk – Naturally Uncommon
2004 | Range Restricted

DISTRIBUTION
Endemic. South Island, West Coast Karamea, Denniston Plateau, Lake Brunner. Up to 600m a.s.l.

Kangaroo Lake, Westland. Photographer: Phil Garnock-Jones, Licence: CC BY-NC.

Kangaroo Lake, Westland. Photographer: Phil Garnock-Jones, Licence: CC BY-NC.

HABITAT
Wet tussock grassland mixed with cushion bog and open channels and pans of cobbles.

WETLAND PLANT INDICATOR STATUS RATING
OBL: Obligate Wetland
Almost always is a hydrophyte, rarely in uplands (non-wetlands).

DETAILED DESCRIPTION

Perennial, prostrate fine-leaved evergreen succulent not rooting at nodes; stem glabrous-subglabrous, approximately 0.4 mm diameter. Leaves sessile, fleshy, 3.5 x 1 mm, oval-lanceolate, narrowed at the base, apex apiculate, margin entire or with a pair of lanceolate, apiculate teeth up to approximately 0.5-1 mm long about the middle (both forms may occur on same plant), subglabrous, or pilose. Flowers borne singly along the branches on 1-2 mm generally horizontal pedicels which are bent abruptly at junction with calyx so that flower stands erect. Calyx, about 3-4 mm, nearly equal to half quadrifidus, ovate lobes sharpest placed on end, 0.2 mm long, very sparsely ciliate with white hairs, persistent until onset of decay. Corolla white to cream, striped, with yellow blotching mid-way toward limb, 15-70 mm long, tube up to 60mm long, very narrow to filiform, flaring suddenly into limb 8-9 mm diameter, more or less pilose; lobes of lower lip 4.2-5.2 mm wide, entire, of upper lip very short but wider, up to 6 mm wide. Anthers free, erect, golden yellow ellipsoidal blunt, filament glabrous; stamens subequal to didynamous 1 x 2 mm long uniformly mucronate. Style, slender, unbranched, bent at tip, stigma insignificant. Ovary with 1 ovule per locule; capsule broader than tall, rupturing calyx at anterior cleft; sometimes 2-seeded and symmetrically obcordate or bicornute, more often 1-seeded by abortion and asymmetric, approximately 2 x 4 mm and ovate to triangular in outline; apparently indehiscent. Seed close to ovate, approximately 1.3-1.4 x 2.3-2.8 (-3.5) mm long.

SIMILAR TAXA

From Euphrasia disperma it can be distinguished by its much larger and usually much more long-tubed flowers, and by its more distinctly nerved and usually distinctly unidentate leaves. In E. disperma the corolla (9-15 mm long), and anthers (1 mm long) are much shorter than in E. wettsteiniana (15-70 mm, and 2 mm long respectively). Recently there has been consensus that the outer corolla of E. wettsteiniana has yellow blotches present, which are not present on E. disperma.
When determining between the two species it would be best to consider all the potential differences.

FLOWERING

(October-) November – April (-May).

FRUITING

November – May.

LIFE CYCLE

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

ETYMOLOGY

euphrasia: Eye-medicine
wettsteiniana: Named after Richard Wettstein, (30 June 1863 - 10 August 1931) Austrian Botanist.

TAXONOMIC NOTES

In, du Rietz (1931) he suggested: E. Wettsteiniana is a highly polymorphic species, containing a series of forms differing from each other especially in the length of the corolla-tube and in the form of the leaves. A detailed account of this polymorphy must be based upon studies in the field. In order to give some idea of it, however, I shall describe some distinct forms represented in the herbarium-material available to myself at present, leaving the question open whether the describing and naming of such forms will prove to be of any value when a more detailed study of the polymorphy of this species has been carried out.
The above detailed description is an amalgamation of the four descriptions in du Rietz (1931).

ATTRIBUTION

Fact sheet prepared for NZPCN by M.D. Ward (13 November 2020) Description adapted from du Rietz (1931).

REFERENCES AND FURTHER READING

Allan, H. H. 1961. Flora of New Zealand. Volume 1. Wellington: Government Printer. Pages 859-860.
du Rietz. G. E. 1931: The long-tubed New Zealand species of *Euphrasia* (=*Siphonidium* Armstr.). Svensk Botanisk Tidskrift. Volume 25: Pages 108-25.
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. and Simpson, M.J., 2001. *Seeds of New Zealand gymnosperms and dicotyledons*. Manuka Press. Pages 335 & 338.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/euphrasia-wettsteiniana/