

Euphrasia cuneata

COMMON NAME

North Island eyebright

SYNONYMS

Euphrasia tricolor Col.

FAMILY

Orobanchaceae

AUTHORITY

Euphrasia cuneata G.Forst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

EUPCUN

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North and South Islands, from East Cape to Marlborough Sounds; Lake Ellesmere, Canterbury.

HABITAT

Open rocky places, stream-sides and among scrub, sea level to 1500m a.s.l.

WETLAND PLANT INDICATOR STATUS RATING

UPL: Obligate Upland

Rarely is a hydrophyte, almost always in uplands (non-wetlands).



Ruahine range, January. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Burnt Spur, Tararua Range. Photographer: Jeremy R. Rolfe, Date taken: 13/12/2008, Licence: CC BY.

DETAILED DESCRIPTION

Perennial herb or subshrub up to approximately 600 mm tall; stems woody in lower parts, erect or ascending, branches usually leafy with small axillary branchlets, (more or less) uniformly or sometimes bifariously pubescent with short crisped white hairs. Leaves usually rather distant, lamina 5-15 (-25) x 3-10 mm, rhomboid-cuneate to ovate to suborbicular with 1-3 pairs of obtuse to subacute teeth and acute to obtuse triangular terminal lobe, cuneately narrowed into petiole 1-4 mm long, glabrous, margins usually flat, sometimes somewhat thickened and revolute. Inflorescence much-branched with small simple bracts or reduced to a simple raceme with flowers in axils of little-differentiated leaves; pedicels 1-3 (-6) mm long, shorter than leaves. Calyx 4-8 mm long, glabrous or nearly so, unevenly divided with deepest clefts up to 1/2 length; lobes acute to obtuse, midribs thickened. Corolla white, 15-20 mm long; tube much longer than calyx; lower lip distinctly longer than upper, lobes deeply emarginate, up to 8 mm wide; lobes of upper lip entire, obtuse, 3-4 mm wide. Anthers red-brown, conspicuously hairy, awns usually markedly unequal, lower 2 very long. Capsule distinctly longer than calyx when mature, 6-8 (-10) x 2-3 mm, narrow-oblong, narrowed towards base and apex, densely setose at tip, at least at first; seeds numerous, approximately 2 mm long.

FLOWERING

January – March (May)

FLOWER COLOURS

White, Yellow

FRUITING

February - May

LIFE CYCLE

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

ETYMOLOGY

euphrasia: Eye-medicine

cuneata: From the Latin cuneum 'wedge', meaning wedge-shaped

TAXONOMIC NOTES

There is great variation in size of all parts, mostly correlated with differences in elevation and habitat, but complete gradation between the extremes. Coastal and lowland plants have much-branched leafy stems and inflorescences; lower leaves with laminae 10-25 mm long, cuneately narrowed to distinct petiole, these narrowing and decreasing into linear-lanceolate, entire, or obscurely toothed bracts of inflorescence. Subalpine scrub forms usually have simpler, mostly unbranched, inflorescences, the floral leaves little different from the vegetative leaves which are generally small with only 1-2 pairs of teeth and sometimes barely petiolate. Plants from Mount Hikurangi, Mangapohatu and Mount. Taranaki appear especially distinct because of their uniformly broad-ovate to suborbicular leaves, with floral leaves longer-petioled and (more or less) spatulate. Round-leaved plants occur in other localities but not so consistently.

Cheeseman (1906) noted under *E. cuneata*: "There seems to be two main varieties—one tall and slender, with numerous leafy branches, narrow long-petioled leaves, and copious inflorescence; the other, which is principally montane and subalpine, and which corresponds to Colenso's *E. tricolor*, is not so much branched, the leaves are shorter and broader, on shorter petioles, and the flowers are spicate along the upper part of the branches. It might be distinguished as var. *tricolor*." Following this interpretation, the combination *E. cuneata* var. *tricolor*, has since been widely used for the reduced plants of higher altitudes.

E. diversifolia, Petrie (1917) based on a single collection from Mount Hector, Tararua Range, B. C. Aston (WELT 4853), was described as allied to but distinct from *E. tricolor*. The type material consists of a few slender stems bearing the long narrow capsules characteristic of *E. cuneata*; the calyx-lobing is more unequal than usual, pedicels are longer and the distant obovate leaves hardly petiolate. Specimens in (WELT) collected on the Kaimanawa Range by Aston match the type collection exactly. The status remains uncertain.

ATTRIBUTION

Fact sheet prepared for NZPCN by M.D. Ward (3 November 2020) Description adapted from Allan (1961).

REFERENCES AND FURTHER READING

- Allan, H. H. 1961. Flora of New Zealand. Vol. 1. Wellington: Government Printer. Pages 851-852.
- Cheeseman, T.F. 1906. Manual of the New Zealand Flora. Government Printer, Wellington.
- Colenso, W. 1887. A description of some newly discovered and rare indigenous phænogamic plants, being a further contribution towards making known the Botany of New Zealand. Transactions and Proceedings of the New Zealand Institute 19: 259–271.
- Petrie, D. 1917. Descriptions of New Native Flowering-Plants, with Some Notes on Known Species. Transactions and Proceedings of the New Zealand Institute 49: 51–55.
- 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-cuneata/>