

# Corybas trilobus

## COMMON NAME

spider orchid

## SYNONYMS

*Nematoceras trilobum* Hook.f.

## FAMILY

Orchidaceae

## AUTHORITY

*Corybas trilobus* (Hook.f.) Rchb.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Orchids

## NVS CODE

NEMTRI

## CHROMOSOME NUMBER

2n = 36, 72

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. North, South, Stewart Islands

## HABITAT

Coastal to subalpine (up to 1200 m a.s.l.). Probably the most widely ranging of all the New Zealand species, occupying a diverse array of habitats from coastal dune forest and scrub to subalpine shrublands and mires. More than one species is involved (see under similar species), and any clear habitat distinction at this stage is impractical.



Mt Te Moehau, September. Photographer: John Smith-Dodsworth



Mt Te Moehau, September. Photographer: John Smith-Dodsworth

## FEATURES

Terrestrial, tuberous, glabrous, extremely variable winter to summer-green herb forming dense colonies of many plants through vegetative extension. Plant at flowering 20-50 mm tall, flower usually set above leaf but sometimes beneath. Leaf distinctly petiolate; petiole 10-24 mm long; lamina membranous 10-30 mm diameter, dark green to green, reniform to orbicular, usually wider than long, and mostly bearing a distinct median apiculate lobe, base broadly cordate. Floral bract rarely as long as ovary, linear-lanceolate to lanceolate. Peduncle short to long. Ovary erect, creamy yellow to yellow-green, ribbed. Dorsal sepal short, spatulate, obtuse and concave, rounded to cucullate at broad tip, arched over top of labellum, mostly green with purple flecks, sometimes translucent yellow-green with purple flecks or completely white; lateral sepals long, filiform, greatly exceeding labellum, usually basally red fading through pink to translucent white or completely white. Petals similar to lateral sepals in colour and shape, but usually much shorter. Labellum colour variable, sometimes deep crimson or maroon, otherwise reddish grading through to translucent with purple or even greenish flecks or stripes, occasionally completely white, auriculate at base, lamina very abruptly deflexed, broad and rounded, margin entire, usually incurled except at the lower edge, inner surface retrorsely papillose. Seedling peduncle up to 200 mm tall.

## SIMILAR TAXA

*Corybas trilobus* is a species aggregate that requires critical taxonomic investigation using a wide range of modern techniques. The aggregate is unified by, and distinguished from all other species by the more or less trilobed leaf (in some more distinctly so than in others). Chromosome counts indicate two cytotypes a diploid and a tetraploid, and there is some correlation between these cytotypes and their morphology. The relationship of the subantarctic and Chatham Islands forms to the newly described Macquarie Island endemic *C. sulcatus* need careful evaluation. The above description encompasses several commonly encountered forms. Recently Lehnebach et al. (2016) segregated from *C. trilobus* five new species, even so *C. trilobus* remains variable and probably requires further taxonomic revision.

## FLOWERING

August - October

## FLOWER COLOURS

Green, Red/Pink

## FRUITING

August - April

## PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild. Can be grown in basic orchid mix consists of 2 parts medium coarse sand, ideally clean river sand; 2 parts soil, humus or leaf-mould; 1 part weathered sawdust or rotting wood; 1 part granulated bark. Many *Corybas* thrive if more leaf-mould is added, and the plants grown in 50-70% shade, in the cooler, darker end of the shade-house, in pots kept moist throughout the growing period.

## ETYMOLOGY

**corybas:** Helmet flower

## WHERE TO BUY

Not commercially available

## TAXANOMIC NOTES

Considerable research is underway to investigate the validity of the segregate genera split from *Corybas* R.Br. by Jones et al. (2002). Whilst much of that work has yet to be published, on advice from Australian Orchidologists Peter Weston and Stephen Hopper (*pers. comm.*, July 2011, November 2014), all of the segregate genera recognised for New Zealand by Jones et al. (2002) are returned to *Corybas*.

Lehnebach (2016) has made three combinations for those *Nematoceras* lacking valid names in *Corybas*. This action now enables the full transfer of *Nematoceras* back to *Corybas*. However, as of writing, a formal publication rejecting the segregation of *Corybas* by Jones et al. (2002) has yet to be published. Lehnebach cites an unpublished PhD (Lyon 2014) that indicates this move is imminent.

Recently Lehnebach et al. (2016) segregated five new species from *Corybas trilobus*. However, in the process they did not recircumscribe *C. trilobus* leaving it unclear which of the remaining variants currently accepted within that name match the type. Until this is done a clear understanding of *Corybas trilobus sensu. stricto* is still unavailable. In October 2016 an article in *Trilepidea* (issue 155, p. 9) by Jeremy Rolfe provides useful characteristics in *Corybas trilobus* agg.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April 2007. Description adapted from Moore and Edgar (1970).

## REFERENCES AND FURTHER READING

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

Jones, D.L.; Clements, M.A.; Sharma, I.K.; Mackenzie, A.M.; Molloy, B.P.J. 2002: Nomenclatural notes arising from studies into the Tribe *Diurideae* (Orchidaceae). *The Orchadian* 13: 437-468.

Lehnebach, C. 2016: New combinations and a replacement name for three New Zealand spider orchids (*Corybas*). *The New Zealand Native Orchid Journal* 139. 4-5.

Lehnebach, C.A., Zeller, A.J.; Frericks, J.; Ritchie, P. 2016: Five new species of *Corybas* (Diurideae, Orchidaceae) endemic to New Zealand and phylogeny of the *Nematoceras* clade. *Phytotaxa* 270:1-24.

Lyon, S. P. 2014: Molecular systematics, biogeography, and mycorrhizal associations in the Acianthinae (Orchidaceae), with a focus on the genus *Corybas*. PhD Thesis, University of Wisconsin-Madison. USA.

## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/corybas-trilobus/>