

Cyrtostylis rotundifolia

COMMON NAME

winter orchid

SYNONYMS

Acianthus reniformis (R.Br.) Schltr.

FAMILY

Orchidaceae

AUTHORITY

Cyrtostylis rotundifolia Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Indeterminate

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Orchids

NVS CODE

CYRROT

CHROMOSOME NUMBER

$2n = 44+2$

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island (southern two-thirds), South Island (confined to the upper half, mainly in North-west Nelson).

HABITAT

Coastal to lower montane in open clay pans or lightly shaded scrub. May be found amongst mosses on basalt rock. Most commonly found in shallow leaf litter amongst sparse mosses or hard, exposed clay soils.



Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 17/08/2002, Licence: CC BY.



Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 28/08/2006, Licence: CC BY.

DETAILED DESCRIPTION

Winter to spring flowering perennial herb. Plants at flowering up to 100 mm tall (usually less), elongating in seed.

Stem erect, slender. **Leaf** sessile, almost basal, 10–40 × 8–17 mm, grey-green with whitish veins above, pale silvery green below, ovate, obtuse to subacute, base cordate to rounded. **Inflorescence** a raceme up to 30 mm long; floral bracts diminutive, membranous. **Flowers** 1–4; perianth 8–10 mm long, spreading, pink or pinkish-green. **Sepals** subequal; dorsal sepal narrow linear-lanceolate, obtuse, erect, concave; lateral sepal narrow-linear, acute, projecting forwards or widely spreading. **Petals** similar to lateral sepals. **Labellum** 10 × 4 mm, oblong; apex obtuse, not recurved, projecting horizontally forwards, the adjacent margins toothed; surface more or less plane, lamina bearing two prominent, spheroidal basal calli and two, flat, longitudinal ridges that extend nearly to the apex.

Column shorter than the labellum, conspicuous; wings narrow below, widening above so that the stigma is flanked by two lobes. **Pollinia** two per anther cell, more or less ellipsoid to tabular, some what crescent-shaped, crumbling readily in single grains.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to native orchids of New Zealand

SIMILAR TAXA

Most likely to be confused when vegetative with species of spider orchid (*Corybas*) from which it is not easily distinguished unless bearing flower buds, which are multiple in a raceme, rather than mostly solitary, rarely in pairs. From *Cyrtostylis oblonga* it differs by its grey-green rather than yellow-green to green ovate rather than oblong leaf. Other distinctions are less clear and the status of these two species requires further investigation. *C. rotundifolia* could be confused with *Acianthus sinclairii* from which it differs by its preference for more open habitats, and by having sessile leaves held close to or at the base of the stem and lying on or very close to the ground, and the labellum is larger, oblong, rather than ovate, and the petals are as long as, or longer than the lateral sepals, rather than much shorter. The very uncommon *Townsonia deflexa* is similar to both *Cyrtostylis* species but occupies very different forest habitats and it forms interconnected creeping patches. *Townsonia deflexa* has a much smaller, petiolate leaf distinct from the flowering stem which supports a small, orbicular rather than ovate cauline leaf, otherwise this species has flowers very similar to those of other *Cyrtostylis* and indeed *Acianthus*.

FLOWERING

June–October

FLOWER COLOURS

Green, Red/Pink

FRUITING

October–January

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild.

ETYMOLOGY

cyrtostylis: Curved style

rotundifolia: Round leaf; from the Latin rotundus and folium

WHERE TO BUY

Not commercially available.

TAXONOMIC NOTES

Long regarded as either *Acianthus reniformis* or *Cyrtostylis reniformis*. Based on a mostly unpublished molecular (nrITS based study) and limited chromosomal evidence *Cyrtostylis reniformis* is now regarded as an Australian endemic (B.P.J. Molloy pers. comm.). New Zealand plants treated under that name have been referred to *Cyrtostylis oblonga* Hook.f. and *C. rotundifolia* (B.P.J. Molloy pers. comm.), however, Paul Kores (pers. comm.) on the basis of critical multi-marker DNA and morphological based studies of *Acianthus* and its allies treats *Cyrtostylis* as a synonym of *Acianthus* and does not recognise two species for New Zealand. More recently, an as yet unpublished (now in press) study of the Australian and New Zealand Orchidaceae has shown that *Cyrtostylis* is not allied to *Acianthus* but rather is sister to *Corybas* (which as circumscribed there now includes the segregate genera *Anzybas*, *Nematoceras*, *Singularybas* and *Molloybas*) (P. Weston pers. comm. November 2014).

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 LB, Edgar E. 1970. Flora of New Zealand, Volume II. Indigenous Tracheophyta: Monocotyledones except Gramineae. Government Printer, Wellington, NZ. 354 p.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/cyrtostylis-rotundifolia/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/cyrtostylis-rotundifolia/>