

# Dracophyllum subulatum

## COMMON NAME

monoao

## SYNONYMS

*Dracophyllum angustifolium* Colenso

## FAMILY

Ericaceae

## AUTHORITY

*Dracophyllum subulatum* Hook.f.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

DRASUB

## CHROMOSOME NUMBER

$2n = 26$

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Erect grassy shrub with many thin twigs bearing narrow grass-like wavy leaves inhabiting the central North Island. Leaves 10-48mm long by 0.5-1.2mm wide. Flowers white, in short (less than 13mm long) clusters of 2-4 flowers at the end of twigs.

## DISTRIBUTION

Endemic. New Zealand: North Island (Central Volcanic Plateau and adjacent ranges from about Rotorua and Te Kuiti south to near Taihape)

## HABITAT

*Dracophyllum subulatum* is confined to the Central North Island Volcanic Plateau at elevations of 100–1,220 m where it is associated with frost flats. It is virtually confined to pumiceous soils and rhyolitic tephra blanketing these. *Dracophyllum subulatum* is an important shrub of these habitats and where present it is usually dominant.



*Dracophyllum subulatum*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



*Dracophyllum subulatum*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

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

## DETAILED DESCRIPTION

A multi-stemmed shrub 0.3–2.0 m tall. Branches: bark on old branches grey, smooth, young stems reddish to purplish brown. Leaves dimorphic. Juvenile leaves spirally arranged along branches, spreading; lamina sheath 4.5–6.5 × 2.5–3.0 mm, shoulders truncate to auricled and margin membranous with the upper half ciliate; lamina 18–45 × 1–2 mm, linear to rarely linear-triangular, adaxial surface with a patch of scabrid hairs at base; margins serrulate with 70–80 teeth per 10 mm. Adult leaves erect to spreading, olive to dark green; lamina sheath 2.5–6.5 × 2.0–4.0 mm, subcoriaceous, shoulders rounded to auricled and margins membranous, ciliate; lamina 10.0–48.0 × 0.5–1.2 mm, linear to linear-subulate, surfaces glabrous with a tuft of scabrid hairs at base on adaxial surface; margins serrulate with 90–120 teeth per 10 mm; apex triquetrous. Inflorescence a terminal spike on lateral branches; shorter than leaves, erect, dense, 5.3–12.3 mm long, linear-oblong; inflorescence bract over-topping flowers, 4–6 × 0.5–0.6 mm, ovate-lanceolate at base; margins serrulate. Flowers 2–6, sessile; flower bracts equaling to longer than flowers, foliose, 3.5–7.8 × 1.7–2.0 mm, broadly ovate, with a tuft of scabrid hairs at the apex; margins with a prominent broad and white margin, serrulate. Sepals 2.6–3.2 × 0.6–1.2 mm, lanceolate to ovate-lanceolate, longer than corolla tube; adaxial surface pubescent or only the top half pubescent; margins ciliate. Corolla white to light pink; corolla tube 1.8–2.0 × 1.0–1.2 mm, cylindrical; corolla lobes spreading horizontally to reflexed, 1.0–1.5 × 0.8–1.0 mm, triangular, shorter than corolla tube; apices acute; adaxial surface papillate. Stamens inserted in corolla tube in the upper third, filaments 0.1–0.2 mm long; anthers included, rectangular, light yellow and 0.7–0.8 mm long. Ovary obovate, 0.8–1.0 mm long and wide, apex truncate; nectary scales 0.4–0.5 × 0.3–0.4 mm, rectangular, apices retuse; style included, 0.5–1.0 mm long, glabrous; stigma clavate. Fruit 2.9–3.0 × 1.7–1.8 mm, oblong; apex truncate, glabrous. Seeds 1.0–1.2 mm long, yellowish brown, filiform, testa prominently reticulate

## SIMILAR TAXA

*Dracophyllum subulatum* is a North Island, Central Volcanic Plateau endemic. It is easily recognised by the slender branches, juvenile leaves, small (5.3–12.3 mm long) few flowered (2–6) inflorescences, flower bracts with a broad white margin, small corolla tubes (1.8–2.0 × 1.0–1.2 mm) and seeds with a prominently reticulate testa. *Dracophyllum subulatum* is perhaps most similar to *D. palustre*, certainly both species have the same white-margined flower bracts. From *D. palustris* *D. subulatum* differs in having juvenile leaves, and spicate inflorescences rather than solitary flowers. In *D. subulatum* the inflorescence bracts are notably longer than the flower not equaling them, they are also narrower (0.5–0.6 mm compared to 1.5–2.0 mm), while the sepals are longer and filiform rather than ovoid. The seed of *D. subulatum* is prominently reticulate while those of *D. palustris* are only slightly so.

## FLOWERING

November – March

## FLOWER COLOURS

Green, White

## FRUITING

January – May

## LIFE CYCLE

Minute seeds are wind dispersed (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Difficult – should not be removed from the wild

## THREATS

Not Threatened. However, as a distinct vegetation type *Dracophyllum subulatum* dominated frost flat vegetation has declined markedly over the last 100 years with much of its former range now converted to pine plantation or farmland. It could also be argued that this species is threatened by the spread of heather (*Calluna vulgaris*).

## ETYMOLOGY

**dracophyllum:** Dragon leaf, from its likeness to the dragon tree of the Canary Islands

**subulatum:** Awl-shaped

## WHERE TO BUY

Occasionally available from specialist native plant nurseries.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (23 April 2012). Description adapted from Venter (2009)

## REFERENCES AND FURTHER READING

Venter, S. 2009: A taxonomic revision of the genus *Dracophyllum* Labill. (Ericaceae). Unpublished Phd Thesis, Victoria University of Wellington, Wellington.

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

Please cite as: de Lange, P.J. (Year at time of access): *Dracophyllum subulatum* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dracophyllum-subulatum/>