

Podocarpus nivalis

COMMON NAME

mountain tōtara, snow tōtara

SYNONYMS

Podocarpus nivalis Hook. var. *nivalis*, *Podocarpus nivalis* var. *erectus*
Cockayne

FAMILY

Podocarpaceae

AUTHORITY

Podocarpus nivalis Hook.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

NVS CODE

PODNIV

CHROMOSOME NUMBER

2n = 38

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North Island and South Island from Mt Hikurangi and Mt Pirongia south.

HABITAT

Montane to alpine (virtually confined to subalpine and alpine areas in the North Island). Common in open tussock grassland, subalpine scrub and herbfield, at the base of active scree, amongst boulderfalls and on cliff faces and razorback ridges. Sometimes extending down into beech (*Nothofagaceae* forest) and down into valley heads.



At Tongariro, December. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Podocarpus nivalis. Photographer: John Barkla, Licence: CC BY.

DETAILED DESCRIPTION

Prostrate to suberect, spreading woody shrub forming broadly domed patches up to 1.5 × 3.0 m. **Trunk** usually indistinct (mostly obscured by branches), slender, solitary (sometimes several arising from base). **Branches** numerous, spreading with slender trunk, branchlets densely leafy. **Leaves** bronze-green, dark green, sometimes dark wine-red or bronze-purple, closely spaced, spirally arranged, erect or sub-patent, rigid, coriaceous; lamina 5–15 × 2–4 mm, linear-oblong, ± subulate, obtuse, apex ± apiculate, margins distinctly thickened, midvein prominent. **Male strobili** axillary, solitary or up to 4 per peduncle; peduncle 3–5 mm long, strobilus 5–15 mm long, apiculus obtuse. **Female branchlet** axillary, peduncle 3 mm. long, receptacle 2.5–10.0 mm long, red, elliptic-oblong to obovate-oblong, slightly compressed, smooth, swollen (fleshy). **Seeds** solitary or paired, 3.5–7.0 mm long, green when fresh, ovoid or ellipsoid-ovoid, weakly asymmetric, obtusely pointed.

SIMILAR TAXA

None. The prostrate or spreading suberect, heavily branched growth habit, densely leafy branchlets, and small, closely spaced, awl-shaped usually bronze-green leaves serve to distinguish this species from the other allied species of tōtara. Nevertheless where the ranges of *Podocarpus nivalis* overlap with that of Hall's tōtara (*P. laetus*), tōtara (*P. totara* var. *totara*) and needle-leaved tōtara (*P. acutifolius*) hybrids can be common—these are chiefly distinguished by their suberect to erect growth habit, often pendulous branches and much longer, narrower leaves which are not distinctly awl-shaped. The hybrids are fully fertile and introgressive hybrid swarms are sometimes common, especially where the ranges of Hall's tōtara and *P. nivalis* overlap. *Podocarpus nivalis* has also been confused with the Australian *P. lawrencei* which differs from *P. nivalis* in a range of characters but most notably by its consistently dark purple-brown coloured foliage.

FLOWERING

September–November

FLOWER COLOURS

No flowers

FRUITING

December–June

PROPAGATION TECHNIQUE

Easily grown from hardwood cuttings and fresh seed. Does well in full sun in a well drained, moist fertile soil. An excellent shrub for a rockery or small garden. A good subject for a tub garden or for making into bonsai. Despite its natural distribution *Podocarpus nivalis* is remarkably tolerant of drought and humidity.

ETYMOLOGY

podocarpus: Foot or stalk fruit

nivalis: Snow dweller

TAXONOMIC NOTES

Podocarpus nivalis has also (incorrectly) been referred by some New Zealand authors to the Australian endemic *P. lawrencei*.

ATTRIBUTION

Factsheet prepared for NZPCN by P.J. de Lange 4 January 2012. Description adapted from Allan (1961) and Webb & Simpson (2001).

REFERENCES AND FURTHER READING

- Allan HH. 1961. Flora of New Zealand, Volume I. Indigenous Tracheophyta: Psilopsida, Lycopsidea, Filicopsida, Gymnospermae, Dicotyledones. Government Printer, Wellington, NZ. 1085 p.
- de Lange PJ. 1998. Two interesting plant records from Mt. Pirongia western Waikato. *Auckland Botanical Society Journal* 53: 66–69.
- Webb CJ, Simpson MJA. 2001. Seeds of New Zealand Gymnosperms and Dicotyledons. Manuka Press, Christchurch. 428 p.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/podocarpus-nivalis/>