

Orthotrichum aucklandicum

COMMON NAME

Moss

SYNONYMS

Muelleriella aucklandica Vitt

FAMILY

Orthotrichaceae

AUTHORITY

Orthotrichum aucklandicum (Vitt) Goffinet

FLORA CATEGORY

Non-vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Mosses

CURRENT CONSERVATION STATUS

2009 | Range Restricted | Qualifiers: OL

DISTRIBUTION

Endemic. New Zealand: Auckland Islands, Auckland Island only.

DETAILED DESCRIPTION

Plants in small, blackish cushions, the tips often yellow-green to light-green. Stems erect, mostly 2-4× branched, rarely simple or once branched, c.3-12 mm high. Leaves loosely-erect and twisted, sometimes incurved when dry, loosely-erect and straight to erect-spreading when moist, 2.8-3.9 mm long, tri- or bistratose above, ligulate-lanceolate to narrowly ligulate from an ovate base, obtuse or sometimes acute; margins plane, often tristratose or quadristratose; costa ending just below the apex, in cross-section consisting of uniform stereids with no guide cells, in the upper portion of the leaf usually covered on the ventral side with larger cells, on the dorsal side usually not covered by lamina cells or if covered these often partially stereid in appearance; upper cells irregularly rounded to irregularly hexagonal, smooth; basal cells rectangular to elongate-rectangular, slightly nodose to costa, shorter towards margins. Autoicous, Perigonia often at ends of separate branches. Setae 0.5-1.1 mm long; capsules 0.8-1.2 mm long, ± 0.7 mm wide, oblong when dry, ovate to ovate-oblong when wet, gradually narrowed to the seta, immersed, the mouth positioned within the upper 2/3 of the leaf, usually constricted beneath the mouth when old and dry, smooth; exothecial cells rectangular, extremely thick-walled on the tangential side; stomates immersed in the lower 1/2 of the capsule; subsidiary cells strongly differentiated and completely covering the stomates; Peristome diplolepidous, single; exostome teeth 16, papillose, spreading-recurved when dry; endostome segments none; preperistome well-developed, sometimes up to 1/2 length of the exostome. Calyptrae conic, mitrate, strongly plicate, naked or with 1-2 multicellular hairs, with small papillae near apex. Spores multicellular, 40-70 µm, irregularly spherical to cubic-rectangular.

FRUITING

Fruits have been observed in December

THREATS

Not Threatened. Listed because it is a local endemic confined to the Auckland Islands.



SUBSTRATE

Saxicolous on cliff faces and rock ledges between 25 m and 365 m above sea level. Unlike other species in the genus *M. aucklandica* avoids sites subjected to salt spray.

ATTRIBUTION

Fact Sheet Prepared for NZPCN by: P.J. de Lange (5 October 2007). Description adapted from Vitt (1976 - as *Muelleriella*)

REFERENCES AND FURTHER READING

Goffinet, B.; Shaw, A.J.; Cox, C.J.; Wickett, N.J.; Boles, S.B.. 2004: Phylogenetic inferences in the Orthotrichoideae (Orthotrichaceae, Bryophyta) based on variation in four loci from all genomes. *In: Molecular Systematics of bryophytes*. 98 ed. Phylogenetic inferences in the Orthotrichoideae (Orthotrichaceae, Bryophyta) based on variation in four loci from all genomes 270-289.

Vitt, D. H. 1976. A monograph of the genus *Muelleriella* Dusén. *Journal of the Hattori Botanical Laboratory* 40: 91-113.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/orthotrichum-aucklandicum/>