# **Macromitrium ramsayae**

# **COMMON NAME**

Moss

#### **SYNONYMS**

None (first described in 1983)

# **FAMILY**

Orthotrichaceae

#### **AUTHORITY**

Macromitrium ramsayae Vitt.

#### **FLORA CATEGORY**

Non-vascular - Native

# STRUCTURAL CLASS

Mosses

# **CURRENT CONSERVATION STATUS**

2009 | Range Restricted | Qualifiers: IE, RR

# **DISTRIBUTION**

Endemic. Chatham Islands: Rekohu/Wharekauri (Chatham Island) and Rangiuria (Pitt Island)





On kopi trunk, Chatham Island. Oct 2007, from a specimen collected by Peter de Lange. Photographer: Jeremy R. Rolfe, Licence: CC BY.



On kopi trunk, Chatham Island. Oct 2007, from a specimen collected by Peter de Lange. Photographer: Jeremy R. Rolfe, Licence: CC BY.

#### **DETAILED DESCRIPTION**

Plants dull, light olive-green to rich-green, darker below, without distinct yellow or chestnut tones, in dense, spreading mats. Stems creeping, with erect branches, usually up to 10 mm high, branches simple, or forked below perichaetia when fertile. Stem leaves spreading-curved to erect-flexuose, 1.0-1.5 mm long, ovate-lanceolate, gradually narrowed to an acuminate apex, costa very broad below, narrowed toward and ending in or just below the apex, upper cells 6-8 µm, wide, rounded-quadrate, rather thin-walled, chlorophyllose, somewhat bulging, smooth, elliptic, shortly rectangular to elongate, below thicker walled, smooth and slightly bulging. Branch leaves irregularly and loosely spirally-twisted around branch, the upper portion flexuose and irregularly twisted outward to erectspreading when moist 1.6-2.5 mm long, narrowly oblong to broadly lanceolate-oblong, acute, shortly cuspidate, to broadly acuminate-apiculate, only rarely slenderly acuminate, strongly keeled below, becoming flattened near the apex, covered by rounded-quadrate (laminal) cells in upper 1/4 to 1/5 of leaf, in transverse section with 3-4 abaxial rows of stereids, one (2) rows of guide cells and one (2) rows of adaxial stereids, semi-circular in shape; upper cells 5-8 µm wide, rounded-quadrate, occasionally some cells subquadrate or elliptic, plane to slightly bulging, smooth or nearly so, chlorophyllose, unistratose, cells at mid-leaf similar, 6-8 µm wide, subquadrate, rounded, quadrate, or rarely elliptic, in longitudinal rows, less chlorophyllose and with thicker-walls than upper cells; basal cells mostly c.9-11 µm wide, 9-15(-20) µm long, rounded-subquadrate, to mostly elliptic-shortly rectangular, occasional cells elongate, not much different from upper cells, bulging, with most cells lowly tuberculate or strongly papillose, walls mostly regularly and only moderately thick-walled, not nodose. Perichaetial leaves 1.3-1.8 mm long, shorter than vegetative leaves, ovate, shortly and stoutly acuminate to cuspidate, elongate basal cells continuing to almost midleaf. Dioicous. Setae 2.5-4.0 mm long, straight or curved, thick, smooth, scarcely twisted, if so then twisted right; capsules 1.2-2.3 mm long, narrowly ovate to fusiform-cylindric, indistinctly ribbed to almost smooth, erect or slightly curved and asymmetric when old, shortly exserted, exothecial cells 35-55 µm wide, very thick-walled, elongate-sinuose to elliptic, rounded to quadrate-elliptic near rim. Peristome double; exostome of 16, irregular, ± blunt, coarsely papillose teeth, very thick outwardly and ± smooth below, more finely papillose to base on inner surface, erect-recurved when dry, incurved when moist, the teeth often broken when old, with the lower portions remaining and forming a ± fused, low membrane; endostome an irregular, papillose membrane 1-3 cells high. Operculum c.1 mm long, conic, with along erect rostrum. Calyptrae deeply lacerate, mitrate, conic, moderately thinwalled.

#### **FRUITING**

Fruits may be found throughout the year

#### **THREATS**

Not Threatened. Listed because it is a narrow range endemic

#### SUBSTRATE

Corticolous on a wide variety of trees from the coast to the inland Tarahinau/Matipo/Poteriteri Forest

## **ATTRIBUTION**

Fact sheet prepared for NZPCN by P.J. de Lange (5 November 2007). Description adapted from Vitt (1983).

# REFERENCES AND FURTHER READING

Vitt, D.H. 1983: The New Zealand species of the pantropical genus *Macromitrium* (Orthotrichaceae: Musci) taxonomy, phylogeny and phytogeography. *Journal of the Hattori Botanical Laboratory* 54: 1-94

### NZPCN FACT SHEET CITATION

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

https://www.nzpcn.org.nz/flora/species/macromitrium-ramsayae/ (Date website was queried)

#### **MORE INFORMATION**

https://www.nzpcn.org.nz/flora/species/macromitrium-ramsayae/