

# Tortella cirrhata

## COMMON NAME

Moss

## SYNONYMS

*Tortella mooreae* Sainsbury, *Trichostomum eckelianum* R.H. Zander

## FAMILY

Pottiaceae

## AUTHORITY

*Tortella cirrhata* Broth.

## FLORA CATEGORY

Non-vascular – Native

## STRUCTURAL CLASS

Mosses

## CURRENT CONSERVATION STATUS

2009 | Range Restricted

## DISTRIBUTION

Indigenous. Known in New Zealand from Te Pahi (North Cape), the Hauraki Gulf Islands (Poor Knights, Mokohinau, Rangitoto), Hauturu (Clark Island near Whangamata) and Western Reef on the Chatham Islands.

## DETAILED DESCRIPTION

Dioicous (rarely autoicous) compact, densely tufted moss of exposed coastal rock platforms and associated compact soil. Plants bright yellow-green above, brown below. Stems 6-8 mm tall, simply or sparingly branched. Leaves 2.0-2.5 mm long, crowded, crisped when dry, erect to spreading when moist; lamina lanceolate or lanceolate-subulate, acute, concave below, with margins incurved or convolute, finely crenulate and with projecting cells in the subula. Nerve strong about 70 microns wide, narrowing and indistinct near base, excurrent, apex acute, rigid. Upper cells 8-10 microns isodiametrical, incrassate, rounded or subquadrate, smooth or faintly papillose; those above the small basal group slightly longer, shortly rectangular with rounded angles; those of the basal group itself thin-walled, hyaline, widely rectangular, 3-4 x 1, extending obliquely slightly higher up the margin. Perichaetial bracts not differentiated. Seta 10-18 mm long, slender, red to red-brown (especially toward base). Capsule 1.5-2.0 mm long, narrowly-cylindrical, pale-brown, with a reddish mouth. Annulus absent. Peristome teeth 16, inserted under the rim, short, 0.38 mm tall, nearly straight. divided to the base into two filiform, papillose. reddish-brown, obscurely nodulose segments. Operculum conico-rostrate, erect, about one-third the length of the capsule, with two cell-rows vertical, not oblique.

## FRUITING

October - December (may be present throughout the year)



*Tortella cirrhata* on basalt lava, Rangitoto Island. Photographer: Bill Malcolm, Licence: All rights reserved.



*Tortella cirrhata* close up of foliage. Photographer: Bill Malcolm, Licence: All rights reserved.

## THREATS

An apparently naturally uncommon species whose range may have contracted in the past through loss of habitat and nutrients caused by declining sea bird and seal numbers. In its few known locations it is reasonably common and apparently secure. Its recent (2007, 2009, 2010) recognition from North Cape (Te Paki - November 2010), Western Reef (where it was collected in January 2006 - see de Lange & Sawyer 2008) and Hauturu (Clark Island, near Whangamata December 2009) suggests it is more widespread than had once been believed.

## SUBSTRATE

Basalt, Rhyolite, Schist rock and associated soil. Often found growing within the splash zone, and usually in sites richly manured by sea birds and seals.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 5 November 2007. Description from Sainsbury (1955) - as *Tortella mooreae*.

## REFERENCES AND FURTHER READING

de Lange, P.J.; Sawyer, J.W.D. 2008: Flora of Western Reef, Chatham Islands. *New Zealand Journal of Botany* 46: 425-431.

Sainsbury, G.O.K. 1955 A Handbook of the New Zealand Mosses. *Royal Society of New Zealand Bulletin* 5: 1-490.

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Tortella cirrhata* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/tortella-cirrhata/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/tortella-cirrhata/>