



## *Calymperes tahitense*

### Common Name(s):

moss

### Current Threat Status (2009):

Nationally Critical

### Distribution:

Indigenous. Kermadec Islands: Raoul Island. Widespread and common throughout the high islands of the tropical Pacific, also in New Guinea, Northern Australia, Indonesia, Malaysia, Indo China and China.

### Habitat:

Saxicolous. Known from two sites on Raoul Island growing in steep sided ravines prone to sudden flash floods, being otherwise dry for lengthy periods of time.

### Features\*:

Plants robust, apparently yellow-green when fresh, terrestrial. Stems 10–35 mm, with moderately conspicuous, brown, smooth rhizoids in lower portions. Leaves loosely contorted when dry, erect-spreading when moist, linear from a slightly broader base, tubulose, the lamina abruptly tapered at apex to a well-developed proboscis, coarsely toothed at apex by multi-cellular teeth, unistratose except at the thickened margins, 6–7 × 1 mm; cancellinae extending one-fourth to nearly one-third the leaf length, rounded distally, with files of files of hyaline cells extending among the green cells of the upper lamina, with cells rectangular and mostly c.45–75(–90) × 25 μm; leaf margins very strongly thickened and winged (in cross-section) throughout, with well-developed teniolae (intra-marginal border) extending one-third or more the leaf; upper laminal cells ± isodiametric, somewhat irregular, dark green, mostly 3–5 μm in great diam., appearing smooth in surface view, in cross-section bulging on adaxial surface. Costa stout, mostly short excurrent (nearly filling the proboscis and usually extending slightly beyond the “lamina” of the proboscis), not tapered and somewhat swollen at apex, bearing clusters of propagulae only on the adaxial apical surface, in cross-section protruding strongly and rounded abaxially, with median guide cells and two stereid bands. Propagulae not forming spherical clusters, the individual morphology not clearly seen in N.Z. material

### Flowering:

N.A. - spore producing

### Fruiting:

N.A. - spore producing

### Threats:

*Calymperes tahitense* was first discovered on Raoul Island in May 2009 when a small population was found near the bottom of Ravine Eight. During the May 2011 Kermadec Biodiscovery 2011 expedition a new population was found in the Sunshine Valley ravine system. At both sites only a few tufts were found in sites prone to sudden, extreme flooding and attendant erosion. Although probably a naturally uncommon species close to (or at) its world southern limit on Raoul, the species qualifies as Nationally Critical on the basis of area of occupancy which is considerably less than 1 square metre. Beyond natural threats such as loss from flooding there are no other human induced issues affecting this moss.

### \*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 1 July 2011.

### For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=6693](http://nzpcn.org.nz/flora_details.asp?ID=6693)



**Caption:** Raoul Island, Kermadec Islands, Feb 2012.

**Photographer:** Jeremy Rolfe from a specimen collected by Peter de Lange.