

## ***Lepicolea scolopendra* – a cool climate liverwort**

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*Lepicolea scolopendra* (Hook.) Dumort. ex Trevis. is a liverwort (Fig 1) which will likely undergo a significant range contraction in Australian within the next 100 years. It currently occupies cold, mesic environments such as shaded rainforests or higher elevation woodlands, shrublands and similar where ambient conditions are cool and stable in summer and—in some areas—under snow in winter.

Archibald Menzies (1754–1842) collected the type material of *Lepicolea scolopendra* in hills around Dusky Sound New Zealand; in 1791 while serving as botanist on a naval exploration of the Pacific (Naish 1991). This collection was significant as the first collection of what ultimately became a new plant family Lepicoleaceae Schust. from *Lepicolea* Dumort. (APNI 2019) and along with other collections by Menzies at the time were regarded as founding European collections of the New Zealand bryoflora (Scott 1971). Hooker (1818) described from Menzies' material the species *Jungermannia scolopendra* and coined the specific epithet according to its 'closely pinnate and deflexed branches'. Hooker viewed its habit as indicated in its description and accompanying illustration (Fig 2) as an erect plant with deflexed pinnate branches. Its pendant habit as an epiphyte was possibly not observed by Hooker however its often curved and pendant shoots equally fit the specific epithet; the sometimes anticlinal-pendant growth of the gametophyte rather than the deflexed thorn-like growth of the branches as Hooker noted. Schuster (2000) states that *Lepicolea scolopendra* is never pendulous—in contrast to Meagher and Fuhrer (2003) who report its habit as cascades on trees and shrubs. The cascading or pendant habit is common in Australia and Rodway (1916) notes both habits in Tasmanian material.



Fig.1. *Lepicolea scolopendra* from *Eucalyptus coccifera* alpine woodland, Mt Field, Tasmania.



Fig.2. *Jungermannia scolopendra* from Hooker 1818

Australia and New Zealand share the same two species *Lepicolea scolopendra* and *Lepicolea attenuata* (Mitt.) Steph. (APNI 2019, Engel and Glennie 2008) and there are 10 species in total (Söderström et al 2016) distributed variously in southern Australia, New Zealand, Southeast Asia, Fiji, Papua New Guinea, South America and Africa. The main (key) character difference between the two Australian species is that the former has filamentous leaf tips with several cells lacking chlorophyll, giving the gametophytes a conspicuous bristly appearance. This is shown in the leaf illustration of Hooker (Fig 2). *Lepicolea scolopendra* commonly occupies soil, tree roots, rock or bark of various shrubs and trees; often near the ground. Scott (1985) regarded it infrequent as an epiphyte in *Nothofagus* gullies (southern Australia) while Rodway (1916) reports it to be very common in Tasmania.

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