

Riccardia pennata

COMMON NAME

Liverwort

SYNONYMS

None (first described in 1989)

FAMILY

Aneuraceae

AUTHORITY

Riccardia pennata E.A.Brown

FLORA CATEGORY

Non-vascular – Native

STRUCTURAL CLASS

Liverworts

NVS CODE

RICPEN

CURRENT CONSERVATION STATUS

2009 | Range Restricted

DISTRIBUTION

Endemic. South Island, Glasgow Range

DETAILED DESCRIPTION

Dioicous. Thallus flaccid, creeping, pale green. Growth indeterminate, branching simply pinnate to bipinnate with minimal tripinnate development. Thalli c.15 mm long, 760-1428 microns wide. Apices slightly cleft. Mucilage papillae 80 x 25 microns, ventral, either persisting for only a short distance or not at all. Rhizoids ventral, frequently in scattered patches. Stolons absent and gemmae not observed. Axis plano-convex with an acute, winged margins. Thallus 118-150 microns (5-6 cells) thick; cells thin walled to slightly thickened and those of ventral epidermis and sometimes the subepidermis smaller than the dorsal epidermal and internal cells. Winged margin 1 cell thick and typically 3 cells wide, cells tending to be larger than those of the dorsal epidermis, usually lacking oil-bodies and frequently chlorotic. Thallus wing obvious in younger regions of the axis but not always evident in older areas. External epidermal cell walls smooth. Dorsal epidermal cells oblong to hexagonally elongate, 44-69 x 21-29 microns, and 20-26 microns deep. Ventral epidermal cells elongate in the centre of the axis, 44-74 x 10-13 microns but becoming shorter and wider towards wing (34-53 x 12-22 microns). Dorsal subepidermal cells similar in shape to those of dorsal epidermis, 58-111 x 27-40 microns. Ventral subepidermal cells pentagonal to hexagonal, 27-41 x 15-19 microns. Internal cells 15-27 microns deep. Oil-bodies 10-18 x 7-11 microns, absent in epidermis (sometimes present in the marginal wing) and the ventral subepidermis, and frequently in the internal cells. Endophytic mycorrhizae 3-5 microns wide and numerous in the ventral epidermis. Male branches solitary, arising from the main axis or the base of side pinnae in older regions of the thallus, sessile. Antheridial cavities on the dorsal surface in 4-6 pairs separated by 1-3 cells. Female branches solitary, towards the apex of the main axis or on actively growing side branches, bearing 2-3 pairs of archegonia. Calyptra and sporophyte unknown.

FRUITING

Fruits not known

THREATS

Not Threatened. Apparently a narrow-range endemic whose only known habitats occur within reserved land protected by the crown.

SUBSTRATE

Saxicolous on vertical, water saturated rock faces growing with *Plagiochila* Dum. and *Schistochila* Dum. within *Nothofagus* forest, and also known from just above timberline where terricolous on skeletal soil on permanently damp, rock-strewn ground.



ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (27 August 2006). Description adapted from Brown & Braggins (1989).

REFERENCES AND FURTHER READING

Brown, E.A.; Braggins, J.E. 1989: A revision on the genus *Riccardia* S.F. Gray in New Zealand with notes on the genus *Aneura* Dum. *Journal of the Hattori Botanical Laboratory* 66: 1-132.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/riccardia-pennata/>