

Empodisma minus

COMMON NAME

wire rush, lesser wire rush

SYNONYMS

Calorophus minor Hook.f.; *Calorophus elongatus* var. *minor* Hook.f.;
Hypolaena lateriflora var. *minor* (Hook.f.) Cheeseman

FAMILY

Restionaceae

AUTHORITY

Empodisma minus (Hook.f.) L.A.S.Johnson et D.F.Cutler

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Rushes & Allied Plants

NVS CODE

EMPMIN

CHROMOSOME NUMBER

2n = 24

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island, South Island and Stewart Island/Rakiura. From the Central Volcanic Plateau south in upland areas. Throughout the South Island but scarce in Marlborough and north Canterbury. Also Australia.

HABITAT

Coastal to alpine (up to 1350 m a.s.l.). The dominant peat-forming species of low moor and high moor (raised bogs), oligotrophic, ombrotrophic wetland systems in New Zealand (montane to alpine in the North Island). Tolerates extremely acidic conditions (up to pH 2.5).

WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).



Mt Ruapehu, January. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Charleston, West Coast. Photographer: Melissa Hutchison, Date taken: 14/02/2014, Licence: CC BY-NC.

DETAILED DESCRIPTION

Dioecious, perennial herb producing numerous, branched, flexuose culms collectively forming densely interwoven tangles. **Rhizome** rather robust for plant, erect, up to 8 mm diameter, covering with light brown, imbricating scale-like sheaths and very thick tufts of brown hairs; roots numerous, mostly horizontal-ascending rather than descending, 1–1.5 mm diameter, densely covered in pinkish-white root hairs. **Culms** 12–810 mm, 0.7–1.3 mm diameter, much-branched, flexuose, terete or slightly flattened and grooved on one side, glabrous, dark green to dark brown, erect when short, otherwise more or less prostrate to ascending, widely spreading and lianoid. **Leaves** reduced to mucronate sheaths, 3.5–10.2 mm long, closely appressed to culm, spaced 15–48 mm distant, initially light green to light brown maturing dark brown to brown-black, margin entire; cilia protruding through the mouth of the sheath as white tufts of woolly white hairs; hairs arising from the outer scale of the axillary bud enclosed within sheath; mucro persistent, 1.5–4.2 mm long, initially light green maturing dark brown, fine, sharp-pointed, strongly reflexed. **Spikelets** distant within uppermost sheaths. **Male spikelets** 1–2, 3.9–8.0 mm long, 1–6-flowered, 1 sessile and 1 stalked, each borne within a hard, mucronate sheath; tepals 6, narrow-linear, acute; stamens 3, filaments slender, > tepals, anthers 1.2–2.0 mm long, exerted beyond the floral bract. **Female spikelets** 3.5–7.0 mm long, solitary within 1–3 uppermost, bearded, obtuse sheaths, 1-flowered, subtended by 2 imbricate, empty floral bracts; tepals 4–6, very small, hyaline; styles 3, free. **Fruit** a hard, oval nut, 2.6 mm long, protruding over persistent tepals, sessile on a thick receptacle.

SIMILAR TAXA

Differs from *Empodisma robustum* by the diminutive stature and slender growth habit; culms mostly < 1 mm in diameter, sheaths mostly < 7.5 mm long and spikelets generally < 6.0 mm long. Readily distinguished from the two other New Zealand restiad genera *Sporadanthus* and *Apodasmia* by the mostly widely spreading, decumbent, trailing to lianoid growth habit, and 1–6-flowered male and 1-flowered female spikelets.

FLOWERING

August–December

FLOWER COLOURS

Yellow

FRUITING

November–March

LIFE CYCLE

Nuts are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from seed. Prefers an open, permanently damp, acidic soil but can be grown in dry soils as well. Not often cultivated.

ETYMOLOGY

empodisma: Tangle-foot

minus: Small; from the Latin minor

WHERE TO BUY

Not commercially available

TAXONOMIC NOTES

The description (as *Calorophus minor*) in Flora II (Moore & Edgar 1970) includes two elements which are now treated as two species *Empodisma minus* and *E. robustum*.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (18 June 2005). Description based on fresh material and herbarium specimens.

REFERENCES AND FURTHER READING

Moore LB, Edgar E. 1970. Flora of New Zealand, Volume II. Indigenous Tracheophyta: Monocotyledones except Gramineae. Government Printer, Wellington, NZ. 354 p.

Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/empodisma-minus/>