

# Empodisma robustum

## COMMON NAMES

wire rush

## SYNONYMS

None first described in 2012.

## FAMILY

Restionaceae

## AUTHORITY

*Empodisma robustum* Wagstaff et B.R. Clarkson

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Rushes & Allied Plants

## NVS CODE

EMPROB

## CHROMOSOME NUMBER

2n = 24

## CURRENT CONSERVATION STATUS

2017 | At Risk – Declining

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand: North Island (Te Aupouri Peninsula south to the lower Waikato).

## HABITAT

*Empodisma robustum* is restricted to ombrotrophic raised peat bogs where it often coexists with *Sporadanthus ferrugineus*, fens and gumland heathland peats. It is often locally abundant.

## WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

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



*Empodisma robustum*. Photographer: Wayne Bennett, Licence: CC BY-NC.



*Empodisma robustum*. Photographer: Wayne Bennett, 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 12 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, 1.2–1.8 mm diameter, densely covered in pinkish-white root hairs. **Culms** 0.38–2.2 m, 0.9–2.2 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, 5.2–21.0 mm long, closely appressed to culm, spaced 20–70 mm apart, initially light green to light brown maturing dark brown, 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, 2.2–7.5 mm long, initially light green maturing dark brown, fine, sharp-pointed (accicular), strongly reflexed from leaf sheath. **Spikelets** brown, distant within uppermost sheaths. **Male spikelets** 1–2, 6.8–9.0 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 1.9–2.5 mm, exerted beyond the floral bract. **Female spikelets** 5.8–8.9 mm, 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 nut, 2.7 mm long, dark brown, ovoid, protruding over persistent tepals, sessile on a thick receptacle.

## SIMILAR TAXA

*Empodisma minus* differs from *E. robustum* by its 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 tall 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–October

## FLOWER COLOURS

Yellow

## FRUITING

November–March

## PROPAGATION TECHNIQUE

Easily grown from fresh seed and by the division of established plants. Despite its natural restriction to acidic wetlands. *Empodisma robustum* can be easily grown in a range of media though it does best in full sun in a permanently damp soil.

## ETYMOLOGY

**empodisma**: Tangle-foot

**robustum**: Sturdy

## 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 26 June 2012. Description from Wagstaff & Clarkson (2012).

## 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.

Wagstaff SJ, Clarkson BR. 2012. Systematics and ecology of the Australasian genus *Empodisma* (Restionaceae) and description of a new species from peatlands in northern New Zealand. *Phytokeys* 13: 39–79.

<https://doi.org/10.3897/phytokeys.13.3259>.

### **NZPCN FACT SHEET CITATION**

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<https://www.nzpcn.org.nz/flora/species/empodisma-robustum/> (Date website was queried)

### **MORE INFORMATION**

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

### **PDF DATE**

17 September 2024