Lepidosperma neozelandicum

COMMON NAMES
fountain sedge, fountain grass

BIOSTATUS
Native

CATEGORY
Vascular

STRUCTURAL CLASS
Sedges

DETAILED DESCRIPTION
Stout, rush-like sedge forming dense yellow-green tussocks up to 2 m tall. **Culms** terete, numerous, densely packed, wiry, erect with upper third often arching, 0.5–2.0 m tall, 1–2 mm wide. **Leaves** all reduced to closely appressed, reddish to maroon sheaths, with a subulate, almost filiform lamina 5–20 mm long. **Inflorescence** a simple or rarely branched spike 30–90 mm long. **Spikelets** 10 mm, not fascicled, 2-flowered, with only the upper flower fertile; bracts subtending spikelets membranous, grey-brown, nerved, more or less equal spikelets in length. **Glumes** 4–6, narrow- or oblong-lanceolate, acute or acuminate, with dark brown centre and pale membranous margins. **Hypogynous scales** 6, 1 mm long, white, triangular when mature, fused at the base into a cup. **Nut** (rarely seen) 4 × 1.5 mm, oblong, trigonous, green with white thickened obtuse angles; persistent style-base small, creamy brown, pubescent, occasionally minutely apiculate.

SIMILAR TAXA
Most likely to be confused with *Schoenus brevifolius* and *S. tendo* which have a superficially similar growth habit and often grow with *Lepidosperma neozelandicum*. *Schoenus brevifolius* differs by its sterile culm tips which are distinctly pinched-in near the tip, so leaving a small arrow-shaped head (see fact sheet for that species), and larger, dark brown inflorescences with dark red-brown, flattened pendulous spikelets, bearing numerous, smaller (1.5 × 1.1 mm) turgid, white nuts. *Schoenus tendo* differs by the distinctly floppy/flaccid culms, whose sheath orifices are distinctly cobwebby ciliate, and by the more open, pendulous, inflorescences with dark brown spikelets and smaller(1.5 × 1.0 mm), frequently produced, unequally biconvex, obovoid, obtuse to retuse pale cream to brown nuts.

DISTRIBUTION
Endemic. New Zealand: North Island (Te Paki to about Whangarei, thence scattered to Opuatia wetlands in the northern Waikato); South Island (north-west Nelson from Puponga to the Mangarakau Swamp).

HABITAT
Coastal to lowland. Often on poorly drained clay soils on low hill country but also widespread in gumland habitats, and on damp sandy flats and in peat bogs (especially in Northland). This species is also abundant on the ultramafic soils of the Surville Cliffs, Te Paki, Northland. Often found as the main sedge species under far north shrubland dominated by *Kunzea* Rchb. and *Leptospermum* J.R.Forst. et G.Forst.

CURRENT CONSERVATION STATUS
2023 | At Risk – Declining | Qualifiers: DPR, DPS, DPT, PD

Lake Ohia. Photographer: Jeremy R. Rolfe, Date taken: 05/09/2008, Licence: CC BY.

In cultivation ex Mangarakau Swamp. Photographer: Jeremy R. Rolfe, Date taken: 19/07/2007, Licence: CC BY.

THREATS
Declining through loss of habitat following conversion of gumland and lowland scrub and wetlands to farmland and urban areas. *Lepidosperma neozelandicum* is still common in some parts of the far north of the North Island (especially Te Paki, Ahipara and Lake Ohia) and in North West Nelson but it has been lost from much of the southern part of its North Island range and this decline is ongoing.

DETAILED TAXONOMY

FAMILY
Cyperaceae

AUTHORITY
Lepidosperma neozelandicum (Kük.) R.L.Barrett & K.L.Wilson

SYNONYMS
Lepidosperma filiforme Labill. auct. non.; Lepidosperma filiforme var. neozelandicum (Kük.)

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

ECOLOGY

FLOWERING
October–January

FRUITING
December–May (fruits very rarely seen)

LIFE CYCLE AND DISPERSAL
Scaly nuts are dispersed by water, wind and possibly ants (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Very difficult to cultivate. Seed difficult to germinate. Plants resent root disturbance and usually die if transplanted. However, considerable success has been achieved growing plants and germinating seed in untreated saw dust. Nevertheless, this is an attractive species to grown in a sunny situation, preferring poorly drained clay soils.

WETLAND PLANT INDICATOR STATUS RATING
FAC: Facultative
Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).

OTHER INFORMATION

EXTRA INFORMATION
Nuts are very rarely produced by New Zealand plants probably because most inflorescences are infected by *Lepidosperma* smut (*Moreaua rodwayi*). The reproductive ecology of this species would make an interesting study.

ETYMOLOGY
lepidosperma: Scale seed

PREVIOUS CONSERVATION STATUSES
2017 | At Risk – Declining | Qualifiers: DP
2012 | At Risk – Declining | Qualifiers: DP
2009 | Not Threatened
2004 | Not Threatened

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

Barrett RL, Wilson KL. 2012. A review of the genus *Lepidosperma* Labill. (Cyperaceae; Schoeneae). *Australian Systematic Botany 25(4)*: 225–294. https://doi.org/10.1071/SB11037.
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.

ATTRIBUTION

NZPCN FACT SHEET CITATION

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MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/lepidosperma-neozelandicum/

PDF DATE

31 October 2024