

Deschampsia cespitosa

COMMON NAMES

tufted hair-grass, wavy hair-grass

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Grasses

DETAILED DESCRIPTION

A stiffly erect green to yellow-green tussock, which stands 20–50 cm tall. The leaves are narrow (1–4 mm wide) and are flat or partly rolled and dull green above and bright green beneath and rough to touch. An attractive grass with blonde flowering heads 1 m or more tall that occur in January. Seed is produced in February.

SIMILAR TAXA

Tall fescue (*Lolium arundinaceum* (Schreb.) Darbysh. subsp. *arundinaceum*) can look similar when in seed, but this species has a taller seed head and the leaves are much larger and broader than tufted hair-grass. Common UK forms of *Deschampsia* sold in garden centres, often as impostors for the NZ form, have a chromosome number of $2n=48$. The NZ plant is more erect, with a lower vernalisation requirement and a greater susceptibility to stem rust disease (*Puccinia graminis*).

DISTRIBUTION

Indigenous. New Zealand: North, South, Stewart and Chatham Islands—generally scarce in the northern third of the South Island and highly threatened on Chatham Island. Otherwise at times (especially in Southland and Fiordland) locally common.

HABITAT

Wetlands and lake margins. Coastal to subalpine damp grass or sedge swards near lakes, rivers and swamps. Also found in estuarine margin communities.

CURRENT CONSERVATION STATUS

2023 | At Risk – Declining | Qualifiers: DPS, DPT, PD, SO

THREATS

Very palatable to farm and feral stock. Grazing and trampling by cattle is the chief cause of decline. Contamination or replacement of NZ forms of *Deschampsia* with imported forms is also a serious risk.

DETAILED TAXONOMY

FAMILY

Poaceae

AUTHORITY

Deschampsia cespitosa (L.) P.Beauv.

SYNONYMS

Aira cespitosa L., *Aira australis* Raoul, *Deschampsia penicillata* Kirk, *D. cespitosa* var. *Macrantha* Hack.



Deschampsia cespitosa. Photographer: Cathy Jones, Licence: CC BY.



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TAXONOMIC NOTES

Although New Zealand plants are treated as *D. cespitosa*, this is in the broad sense. The “species” is cosmopolitan and highly variable throughout its range with respect to morphology, chromosome number and habitat preferences. New Zealand plants are notable because they are highly palatable to introduced browsing mammals, which is of interest because the same “species” in other parts of the world is considered to be a serious pastoral weed, virtually untouched by livestock, deer etc. This suggests a chemical difference, certainly nrDNA ITS sequences and C-values obtained from New Zealand plants do not match that reported from this species from other parts of the world, nor do our plants match horticultural imports now popular in the nursery trade. Thus the situation is not as simple as implied in Edgar & Connor (2000). Further research into the status of our plants is needed.

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

January

FRUITING

February

LIFE CYCLE AND DISPERSAL

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

PROPAGATION TECHNIQUE

Easily grown by the division of whole plants and from fresh seed. Rather hardy, and despite its natural restriction to wetlands, it will grow in motys soils and moisture regimes.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

OTHER INFORMATION

CULTIVATION

New Zealand plants are occasionally sold by some specialist native plant nurseries. However, the majority of *D. cespitosa* sold by mainline retail nurseries, while this species, are not the New Zealand plant, and appear to be of European origin.

ETYMOLOGY

deschampsia: After Deschamps

MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to the grasses of New Zealand](#)

NVS CODE

DESCES

CHROMOSOME NUMBER

2n = 26

PREVIOUS CONSERVATION STATUSES

2017 | At Risk – Declining | Qualifiers: DP, PD, SO

2012 | At Risk – Declining | Qualifiers: CD, SO

2009 | At Risk – Declining | Qualifiers: SO, CD

2004 | Gradual Decline

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

Edgar E, Connor HE. 2000. Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 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

Fact Sheet prepared for NZPCN by P.J. de Lange 1 July 2005. Description modified from Edgar & Connor (2000). Some of this factsheet information is derived from [Flora of New Zealand Online](#) and is used under a [Creative Commons Attribution 3.0 New Zealand](#) licence.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/deschampsia-cespitosa/>

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