

Calamagrostis arenaria (L.) Roth

COMMON NAME

marram grass

SYNONYMS

Ammophila arenaria

FAMILY

Poaceae

AUTHORITY

Calamagrostis arenaria (L.) Roth

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Grasses

NVS CODE

AMMARE

CONSERVATION STATUS

Not applicable

HABITAT

Terrestrial. Coastal plant, usually occurs on sand dunes; can occur in inland sites with low fertility.

DETAILED DESCRIPTION

Stout rhizomatous perennial grass forming compact tufts, 1 m+ tall.

Rhizomes tough, creeping long distances in loose sand. **Leaves** to 700 × 3–6 mm, greyish-green, tips sharp, reddish-brown sheaths overlapping; blades tightly rolled (appear cylindrical) in exposed conditions, loosely rolled in shade; densely hairy ribs above, striped below, narrow ligule 25 mm long. **Seedhead** a dense spike, whitish, to 30 cm long.

SIMILAR TAXA

Leymus racemosus is more robust, foliage less bluish. *Poa billardierei* native sand tussock can be confused with small marram plants.

FLOWERING

November, December, January, February, March

FLOWER COLOURS

Green, Yellow

FRUITING

Unknown

LIFE CYCLE

Perennial. Can spread large distances via seed. Low amounts of seed are produced. Seed viability is low, with no contribution to the seed bank. Vegetative reproduction occurs rapidly through extensive rhizomatic growth. The plant achieves this by trapping sand and growing through it, changing how natural sand dunes are formed, in contrast to native pīngao (*Ficinia spiralis*) which holds and releases sand more readily to resupply beaches. Seed is dispersed by wind. Direct spread from extending rhizomes, seed and rhizome fragments spread by wind and water, deliberate planting by people for sand dune stabilisation.

PROPAGATION TECHNIQUE

Rooted pieces of rhizome.



Marram. Photographer: John Barkla, Licence: CC BY.



Whitiau Scenic Reserve, Wanganui. Jan 2000. Photographer: Colin C. Ogle, Licence: CC BY-NC.

YEAR NATURALISED

1873

ORIGIN

Europe, North Africa

REASON FOR INTRODUCTION

Agricultural (to stabilise sand dunes which had mobilised once native vegetation had been removed).

TOLERANCES

Highly tolerant to drought and is virtually unpalatable to grazing stock. Intolerant of shade.

ETYMOLOGY

calamagrostis: After Kalamos, a Greek mythical figure who was turned into a reed, and agrostis, a Greek word for 'grass' from agros 'of the field'.

arenaria: Sand dweller

REFERENCES AND FURTHER READING

Peterson, P.M.; Soreng, R.J.; Romaschenko, K.; Barberá, P.; Quintanar, A.; Aedo, C.; Saarela, J.M. 2022: Phylogeny and biogeography of *Calamagrostis* (Poaceae: Pooideae: Poeae: Agrostidinae), description of a new genus, *Condilorachia* (Calothecinae), and expansion of *Greeneochloa* and *Pentapogon* (Echinopogoninae). *Journal of Systematics and Evolution* 60(3): 570–590. (Published online: May 2022)

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<https://www.nzpcn.org.nz/flora/species/calamagrostis-arenaria-l-roth/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/calamagrostis-arenaria-l-roth/>