

# Gahnia procera

## COMMON NAME

giant sedge, gahnia, mountain gahnia

## SYNONYMS

None

## FAMILY

Cyperaceae

## AUTHORITY

Gahnia procera J.R.Forst. et G.Forst.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Sedges

## NVS CODE

GAHPRO

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. North Island, South Island and Stewart Island/Rakiura. In the North Island known from the Coromandel Peninsula south of which it is mostly confined to the main axial ranges. In the South Island confined to the wetter western areas of Nelson, Westland and Fiordland with rare extensions east into Marlborough and Canterbury. Found throughout Stewart Island/Rakiura.

## HABITAT

Montane to subalpine (up to 1300 m a.s.l.). Usually in forest and subalpine scrub. Mostly in cool, shaded sites on peat but at higher elevations and in cloud forest it often grows in more open sites, in boulder field, on rubble slopes, on cliff faces and on the margins of mires and bogs in subalpine scrub.

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).



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



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

## DETAILED DESCRIPTION

Robust tussock forming perennial sedge. **Tufts** arising from a short rootstock. **Culms** 0.3–1.2 m, 2–4 mm diameter. **Leaves** numerous, ≥ culms, densely crowded at base of culm; lamina up to 1.2 m long, dark green above somewhat paler and often glaucous beneath, narrowly linear, glabrous above, margins flat or recurved otherwise strongly involute when dry, smooth at base, scabrid towards apex; sheaths dull brown, up to 180 mm long. **Panicle** immersed within foliage, 200–600 × 25–50 mm, more or less drooping, branchlets often in more or less distant clusters. **Spikelets** 1–(2)-flowered, 9–14 mm long, on slender peduncles or more or less sessile. **Glumes** 4–5, purple-black, the 2–3 outer glumes empty, lanceolate with a long scabrid awn, the inner 1–2 shorter, deeply concave. **Stamens** 4–6. **Style-branches** 4–(5). **Nut** 5.0–6.5 × 2.0–2.5 mm, brownish orange, or rarely cream, smooth and glossy, ovoid to elliptic-ovoid, occasionally slightly grooved, apex darker, obtuse, rarely scaberulous, wider than the short persistent style-base; endocarp distinctly transversely grooved within.

## SIMILAR TAXA

Of all the *Gahnia* species *G. procera* is most likely to be confused with *Gahnia pauciflora* which has a similar stature and can grow in similar habitats. From that species *G. procera* is distinguished by the inflorescences which are usually hidden amongst the foliage rather than towering over it, and by the purple-black glumes with lower sterile glumes > the upper fertile glumes. The nut of *G. procera* is ovoid to elliptic-ovoid, uniformly coloured brownish-orange (rarely cream) with the tip only slightly darker, while those of *G. pauciflora* are fusiform, brownish-orange or yellow-cream, with the tip consistently pigmented black. *Morelotia affinis* (Brong.) Blake although superficially similar is a much smaller plant of lower altitudes whose glumes are spirally rather than distichously arranged.

## FLOWERING

December–February

## FRUITING

Fruit may be found throughout the year

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Difficult to cultivate. Best results are achieved with seed sown into untreated saw dust. Plants resent root disturbance and usually die if transplanted. Despite these problems this is an attractive species well worth attempting to grow. Once established it flourishes in a range of conditions but does best in partial shade in a damp, humus-enriched but well drained soil.

## ETYMOLOGY

**gahnia:** After Gahn

**procera:** Long (filaments)

## ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (30 October 2005). Description adapted from Moore and Edgar (1970)

## REFERENCES AND FURTHER READING

Gardner RO. 1996. *Gahnia pauciflora* and *G. procera* and a note on *G. lacera*. *Auckland Botanical Society Journal* 51: 7–10.

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

Please cite as: de Lange, P.J. (Year at time of access): *Gahnia procera* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/gahnia-procera/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gahnia-procera/>