

Gahnia xanthocarpa

COMMON NAME

gahnia, māpere

SYNONYMS

Lampocarya xanthocarpa Hook.f.; Gahnia ebenocarpa Hook.f. ex Kirk;
Claudium xanthocarpum (Hook.f.) F.Muell.; Gahnia setifolia (A.Rich.)
Hook.f. var. xanthocarpa (Hook.f.) Kük.

FAMILY

Cyperaceae

AUTHORITY

Gahnia xanthocarpa (Hook.f.) Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

GAHXAN

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North Island (from Te Pahi south to Wellington but uncommon, or absent over some parts of this range), South Island (Nelson, Marlborough, Westland and Canterbury—where it is very uncommon).

HABITAT

Coastal to montane (up to 800 m a.s.l., possibly more). Occupying a diverse range of habitats and vegetation associations, *Gahnia xanthocarpa* seems to prefer permanently damp situations within alluvial forest, swamp forest and the margins of lowland swamps, bogs and waterways.

WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).



Omahuta forest. October. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Pinehaven, Upper Hutt. Photographer: Jeremy R. Rolfe, Date taken: 29/12/2004, Licence: CC BY.

DETAILED DESCRIPTION

Robust perennial sedge arising from a lignaceous rootstock up to 30 mm diameter and forming densely tufted dark green tussocks up to 3.5 m tall. **Culms** 10 mm diameter (but up to 15 mm diameter at the base). **Leaves** slightly \leq culms, not usually overtopping the panicle; lamina dark glossy green above, paler beneath, surfaces harshly scabrid, margins involute, ciliate just above the transverse line demarcating the sheath from the lamina, becoming more intensely scabrid higher up with a few longitudinal rows of teeth just inside the margin on the lamina undersides; sheaths dull, light pinkish brown, glabrous up to 40 mm wide. **Panicles** set well above foliage, drooping, 0.6–1.5 m long, heavily branched, primary branchlets up to 450 mm long. **Spikelets** 2-flowered, c. 8 mm long, numerous, densely crowded, stalked, light chestnut-brown. **Glumes** 6–7; outer 3–4 empty, more or less equal, 7–8 mm long; inner 3 glumes smaller, 5–6 mm long, red-brown, or green-brown below and red brown towards apices. **Stamens** 4, bright red-brown. **Style-branches** 3–4. **Nut** 5–6 \times 2–3 mm, fusiform, bright yellow maturing glossy black when fully ripe, sometimes slightly grooved, shortly stipitate, with a light orange-brown, obtuse, pubescent apex; endocarp transversely grooved within.

SIMILAR TAXA

Gahnia xanthocarpa could only ever be confused with the other giants of the New Zealand species *G. setifolia* (A. Rich.) Hook.f. and *G. rigida* Kirk. *Gahnia xanthocarpa* frequently grows with *G. setifolia* from which it is easily distinguished by its glossy dark green leaves, reddish brown spikelets which are > 7 mm long and dark glossy black nuts which are > 5 mm long. *Gahnia xanthocarpa* rarely grows with *G. rigida* from which it is easily distinguished by its drooping rather than rigidly erect panicle and dark glossy black nuts.

FLOWERING

January–April

FLOWER COLOURS

Brown, Red/Pink

FRUITING

Fruits may be found throughout the year

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Can be difficult to cultivate. The seed is difficult to germinate, and plants resent root disturbance and usually die if transplanted. However, considerable success has been achieved growing plants and/or germinating seed in untreated saw dust. 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 planted in a permanently damp, humus-rich soil.

ETYMOLOGY

gahnia: After Gahn

xanthocarpa: Yellow fruit

CULTURAL USE/IMPORTANCE

There seems to be no basis for records of this species from Fiji and the New Hebrides. Lord Howe plants have recently been separated as a distinct endemic species *Gahnia howense* R.O.Gardner.

NOTES ON ETYMOLOGY

The specific epithet *xanthocarpa* literally 'yellow-fruit' is inappropriate and was given by accident because the type material is of a specimen J.D. Hooker did not realise was bearing immature nuts which in this species are bright yellow. When the nuts of this species mature they are diagnostically dark glossy black.

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. 1995. Identifying *Gahnia setifolia* and *G. xanthocarpa*. *Auckland Botanical Society Journal* 50: 82–83.
- 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 xanthocarpa* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/gahnia-xanthocarpa/> (Date website was queried)

MORE INFORMATION

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