

Gunnera hamiltonii

SYNONYMS

None

FAMILY

Gunneraceae

AUTHORITY

Gunnera hamiltonii Kirk

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

CHROMOSOME NUMBER

2n = 34

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: CD, RR, RF

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: RF, RR

2009 | Threatened – Nationally Critical | Qualifiers: RF

2004 | Threatened – Nationally Critical

DISTRIBUTION

South Island. Endemic to sand dunes near Invercargill and along the western side of Stewart Island.

HABITAT

A coastal species of consolidated, sparsely vegetated damp sand, in dune slacks and swales.

DETAILED DESCRIPTION

Creeping, stoloniferous, dioecious herb forming compact. Stolons buried close to surface, fleshy, succulent, up to 4 m long, 3–5 mm diameter, internodes 5–8 mm long, exposed parts red or red–green, clad in wispy hairs. Leaves in compact, tight, overlapping rosettes; petioles stout, winged 20–50 x 2–4 mm widening toward amplexicaul leaf base, lamina succulent, coriaceous, 20–30 x 10–25 mm, deltoid, rhomboid to broadly–ovate, apex sub-acute to acute, cuneately narrowed to base or truncate margins crenulate, teeth oblong, obtuse, 1.0–1.4 mm, slate grey, dark grey–green or reddish grey, glabrate to glabrous. Inflorescence an ebracteate, erect, fleshy, stout, spike located within leaf axils: male flowers 10–40 (or more) on a spike up to 30 mm tall, sessile; calyx lobes 2–3, often rudimentary, lobes 0.1–0.2 x 0.08–0.1 mm equal, valvate, deltate, entire, glabrous; sepals much reduced or absent, 0.3–0.4 x 0.2–0.3 mm, oblong, glabrous, caducous, petals similar; stamens 1–2, subsessile, anthers yellow; female flowers initially obscured within foliage, densely packed on spike, calyx, sepals and petals absent or rudimentary, as for stamens, ovary 0.3–0.5 x 0.1–0.2 mm, urceolate, greenish-white, hyaline, glabrous, styles 2 prominent, suberect, 1.0–1.5 mm, falcate-flexuous, subulate-filiform; stigmas papillate. Fruiting spike erect, 10–35 mm long; drupes widely spaced, fleshy, pendulous, 3 mm, clavate. Endocarp 2.8–2.9 mm, broadly obovate, dull yellow or pale brown red.



Close up of flowers of *Gunnera hamiltonii*.
Photographer: Chris Rance, Licence: CC BY-NC.



Mason Bay, Stewart Island. Photographer: John Sawyer, Licence: CC BY-NC.

SIMILAR TAXA

Distinguished from all other New Zealand *Gunnera* by the deltoid, finely toothed grey-green leaves, and stout, prominently winged petioles.

FLOWERING

August - December

FLOWER COLOURS

Yellow

FRUITING

March - July (based on observation of cultivated plants)

LIFE CYCLE

Fleshy drupes are dispersed by frugivory and possibly ants (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from rooted pieces and divisions of whole plants. Seed produced from fruits made in cultivation has germinated readily. Grows best in damp, shaded ground free of weeds. Very hardy, pieces accidentally frozen for several days, when thawed continued to grow.

THREATS

Known from four natural and at least one planted population. Plants from that population are in cultivation. Another population at Doughboy Bay, Stewart Island is at risk from coastal erosion. The main threat to this species is that, with the exception of Doughboy Bay, where male and female plants grow in the same area (though not intermingled), male and female plants are isolated from each other, such that in the wild sexual reproduction and seedling recruitment is unknown. It is not clear whether the current sex distribution is natural (though the Doughboy population argues it is not), and if conservation management should include mixing of sex-types.

ETYMOLOGY

gunnera: Named after Bishop Gunner, a Swedish botanist

hamiltonii: Named after W. S. Hamilton (of Southland)

WHERE TO BUY

Not widely cultivated. Plants are occasionally sold by commercial nurseries (more frequently in the southern South Island), and specimens are held by several Botanic Gardens and universities.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 1 October 2003. Description from de Lange et al. (2010).

REFERENCES AND FURTHER READING

de Lange, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010: Threatened Plants of New Zealand. Christchurch, Canterbury University Press. 471pp.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 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): *Gunnera hamiltonii* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/gunnera-hamiltonii/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gunnera-hamiltonii/>