

Paspalum orbiculare

COMMON NAME

scrobic

SYNONYMS

New Zealand plants have long been incorrectly equated with *Paspalum scrobiculatum* L., a quite unrelated Indian annual species

FAMILY

Poaceae

AUTHORITY

Paspalum orbiculare G.Forst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

PASORB

CHROMOSOME NUMBER

2n = 63

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Vulnerable | Qualifiers: DP, SO

PREVIOUS CONSERVATION STATUSES

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

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

2004 | Gradual Decline

DISTRIBUTION

Indigenous. Known only from the Kermadec Islands and North Island of New Zealand. In the North Island it occurs from Northland to Raglan Harbour in the west and Whale Island in the Bay of Plenty. Common in the wider Pacific and Australia

HABITAT

Coastal to lowland, in seasonal wetlands (often with *Baumea juncea*), on lake margins, in gumland scrub, along track sides and near or around active geothermal vents.



Green Bay, Auckland. Apr 2007. Photographer: Peter J. de Lange, Licence: CC BY-NC.



Green Bay, Auckland. Apr 2007. Photographer: Peter J. de Lange, Licence: CC BY-NC.

DETAILED DESCRIPTION

Perennial grass. **Leaves** stiffly erect. **Leaf-sheath** subcoriaceous, striate, strongly keeled, brown to purple-brown or red, glabrescent. **Ligule** 1–2 mm, truncate, entire. **Leaf-blade** 100–200–(300) × 3.5–5 mm, flat, rigid, midrib distinct, upper surface glabrous, undersides pilose hairy near ligule. **Culm** (200)–350–700 mm, erect, compressed, internodes glabrous, striate. **Panicle** erect, 60–120 mm, with 3–8 erect to slightly spreading racemes. **Racemes** (20)–30–40 mm, 1.2–1.7 mm wide, with short white hairs at base, bearing 2 rows of single to paired, sessile spikelets. **Spikelets** 2–2.5 mm, imbricate, ovoid-elliptic to ovoid-orbicular, glabrous, obtuse, light brown; lower glume 0, upper = spikelet, 3–(5)-nerved, glabrous; lower floret 3–5-nerved, glabrous; upper floret elliptic-orbicular, glossy, brown. **Anthers** 1 mm, if bearing pollen then yellow, usually brown due to malformed pollen, stigmas purple, seed > 1mm.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

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

SIMILAR TAXA

Easily distinguished from the other naturalised species of *Paspalum* present in New Zealand by the glabrous spikelets. Of those species it is most likely to be confused with *P. dilatatum* Poir., with which it often grows. *P. dilatatum* differs by its larger, floppy leaves, larger, drooping panicle, and by the larger spikelets (3–3.5 mm).

FLOWERING

May flower throughout the year but most plants can be found in flower August–April.

FLOWER COLOURS

Brown, Yellow

FRUITING

Seed may be present at anytime of the year but it is most commonly found September–July

PROPAGATION TECHNIQUE

Easy from the division of whole plants and seed but not especially attractive. Very tolerant of waterlogged or drought prone, infertile soils. New Zealand plants are apomictic and appear to produce very little viable seed (< 10% of all seed produced is viable).

THREATS

Formerly widespread from Te Paki south to the Bay of Plenty. This species is now scarce south of Auckland City, and has its strongholds on Great Barrier Island and in the far North. It seems to be threatened by other taller, faster growing grass and shrub species, though exact data on the nature or mechanism of its decline is not available. Some populations have been lost accidentally through failure to recognise its indigenous status, or by revegetation projects using taller native species which eventually shade out this grass.

ETYMOLOGY

paspalum: The Greek name for millet

orbiculare: Icular, circular

TAXONOMIC NOTES

Treated as naturalised by the New Zealand Grass Flora (N.Z. Flora Series Vol. V) on the basis of comments made by Cameron (1998), an assessment since shown to be erroneous (de Lange & Murray 2002). *Paspalum orbiculare* was first collected in New Zealand in 1769 from the Bay of Islands by Banks & Solander, it is widespread from Australia across the Pacific Basin, and has sticky, bird dispersed seeds. New Zealand plants match more closely those from eastern Australia, Lord Howe and Norfolk Islands (de Lange & Murray 2002) than they do those from the Polynesian Islands, thus the argument used by Cameron (1998) that New Zealand plants were established here accidentally as stowaways on Polynesian canoes (waka) seems unlikely.

ATTRIBUTION

Fact Sheet Prepared by P.J. de Lange (1 November 2009). Description based on Edgar & Connor (2000). See also comments by de Lange & Murray (2002).

REFERENCES AND FURTHER READING

Cameron EK. 1998. *Paspalum orbiculare* an adventive addition to the Waitakeres. *Auckland Botanical Society Journal* 53: 40–42.

de Lange PJ, Murray BG. 2002: Contributions to a chromosome atlas of the New Zealand flora—37. Miscellaneous families. *New Zealand Journal of Botany* 40(1): 1–23. <https://doi.org/10.1080/0028825X.2002.9512767>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/paspalum-orbiculare/>