

Machaerina complanata

BIOSTATUS

Native – Endemic taxon

CURRENT CONSERVATION STATUS

2023 | Threatened – Nationally Vulnerable | Qualifiers: DPT, PF, RF

[Jump to previous conservation statuses](#)

CATEGORY

Vascular

STRUCTURAL CLASS

Sedges

DETAILED DESCRIPTION

Dark green, tufted and leafy sedge. **Culms** 0.5–0.9–(1.3) m tall, c. 3 mm wide, smooth, ± compressed. **Leaves** ± = culms, 4–8 mm wide, flat, distichous, isobilateral equitant, striated, pale green, tip acute, margins glabrous. **Panicle** 0.15–0.50 m long, narrow, erect from a long sheath with short lamina; branchlets flexible, fascicled from upper sheaths. **Spikelets**, c. 5 mm long, light red-brown, 2–3-flowered, 1–2 flowers fertile. **Glumes** 5–6, ovate, acuminate or acute, chartaceous, striped with brown, scabrid on back towards tip, margins minutely ciliate. **Nut**, including beak, c. 4 × 2 mm, trigonous, red-brown, very shortly stipitate, narrowed above to a long, triquetrous, scabrid beak.

SIMILAR TAXA

Machaerina sinclairii is similar but has much wider (10–30–(40) mm) light green (rather than dark green) leaves, some what fluffy brown more pendulous rather than erect to suberect, non-fluffy inflorescences, and the persistent style base of *M. sinclairii* is about the same length as the nut, and though rather narrow is quite conspicuous. In *Machaerina complanata* the style-base though persistent, is usually turgid, much shorter than the nut and usually inconspicuous.

DISTRIBUTION

Endemic. Known only from the North Island, where it now occurs locally from Te Pahi south to the Kaipara Harbour. It was also once present in the Waikato on the shores of Lake Waaihi, and there are recent subfossil deposits made by this species in peat bogs (now drained) at Papamoia and Te Puke (Bay of Plenty).

HABITAT

Coastal to lowland (1–300 m a.s.l.). A species of open habitats which has been collected from estuaries (in salt marsh), consolidated dune swales (which are seasonally wet), freshwater lake and river margins, amongst gum land scrub, under regenerating kauri, from the margins of geothermally active springs and fumaroles, and from acidic peat bogs.



Machaerina complanata wild plant, Ngawha Springs. Photographer: Lisa Forester, Licence: CC BY-SA.



Growth form of Machaerina complanata, in the wild at Ngawha Springs, Lake Waiparaheka, October 1990. Photographer: Gillian M.

THREATS

At all known sites seedlings are scarce (or absent altogether). Many populations are senescent or flower infrequently, and few are on protected land. Indications are that this is a light-demanding plant which in the wild is succumbing to natural succession. In heavy shade plants will not flower. In the past this species was regarded as highly threatened, and at that time the key threat had been habitat loss caused by wetland drainage. Discoveries since the 1990s indicate that this species is not necessarily confined to wetlands, and potentially can grow in any suitably open habitat.

GENUS

Machaerina

FAMILY

Cyperaceae

AUTHORITY

Machaerina complanata (Bergg.) Koyama

SYNONYMS

Cladium complanatum Bergg., *Baumea complanata* (Bergg.) Blake

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

September–November

FRUITING

November–March (but fruits of varying ages may be found throughout the year)

PROPAGATION TECHNIQUE

Difficult and should not be removed from the wild. Fresh seed germinates easily (usually within 1–3 months) but plants resent root disturbance and seedlings need to be handled with care as any root damage will kill them. Once seedlings establish it is easy to grow. Does well in wet or dry but prefers full sun. Experimentation with growing conditions at Oratia Native Plant Nurseries showed this species does best when planted in fresh, untreated pine saw dust. Seed set varies from year to year, and there is some indication that it has mast years. For example, 2005 was a particularly good seeding year, while the previous four years were not.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

PLANT OF THE MONTH

This plant has been featured as a Plant of the Month – see [Trilepidea: NZPCN newsletter for June 2011](#) for the full story.

ETYMOLOGY

complanata: Levelled or flattened

NVS CODE

MACCOM

CHROMOSOME NUMBER

2n = c.50

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Vulnerable | Qualifiers: RF

2012 | Threatened – Nationally Vulnerable | Qualifiers: RF

2009 | Threatened – Nationally Vulnerable | Qualifiers: RF

2004 | Range Restricted

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Threatened – Regionally Endangered | Qualifiers: Sp, DPR, DPS, DPT, PF, RR Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the [“Conservation status of vascular plant species in Tāmaki Makaurau / Auckland”](#) Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

McCluggage AP. 2000. New location of *Baumea complanata* at Shenstone Te Paki Northern New Zealand. [*Auckland Botanical Society Journal* 55: 68–69.](#)

Moore LB, Edgar E. 1970. Flora of New Zealand, Volume II. Indigenous Tracheophyta: Monocotyledones except Gramineae. Government Printer, Wellington, NZ. 354 p.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (8 September 2004). Description adapted from Moore & Edgar (1970).

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/machaerina-complanata/>

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