Rytidosperma telmaticum

COMMON NAMES
tarn bristle grass

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Vulnerable | Qualifiers: RR
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Grasses

FLOWER COLOURS
Violet/Purple

DETAILED DESCRIPTION
Small low-growing olive-green tufted tussock-forming, self-compatible grass becoming pallid with many old small straw-coloured bladeless ligule-tipped sheaths below compact intravaginal innovations of 3–4 semi-pungent leaves much less than culms; sometimes open and evidently stoloniferous, rooting and shooting at nodes. **Leaf-sheath** 5–10 mm, usually glabrous but often long hairy, pale straw-coloured, shining, ridged, broader than leaf blade; upper surface with many fine hairs; apical tuft 0.50–0.75 mm, sparse, spreading. **Ligule** 0.2–0.3 mm, of fine hairs. **Leaf-blade** 10–25 × 2 mm, inrolled, glabrous, apex thickened and pointed, ciliate; disarticulating at ligule; undersides very finely prickle-toothed on nerves; margins very finely antrorsely prickle-toothed. **Culm** 20–200 mm, internodes smooth, shining; nodes 3–5, constricted, often geniculate below; inflorescence internodes 30–70 mm long, sheath sometimes with regular horizontal bands. **Inflorescences** racemose or a racemose-panicle 5–35 mm, bearing 2–7 spikelets on very short branches or solitary; margins of rachis and branches very finely toothed; pedicels hairy, hairs denser and longer below spikelets. **Spikelets** 4–5 mm, of 3–5 small closely compact florets usually included by glumes, occasionally upper florets exserted. **Glumes** c. 4–5 mm long, linear acute, faintly keeled, keels occasionally scabrid above, centrally purple or green, margins chartaceous, 3–5-nerves confluent above and central nerve excurrent; upper surface bearing abundant small white hairs. **Lemma** 1.50–1.75–2.25 mm, ovate, straw-coloured, sometimes purpled above, 5–7 nerves anastomising below sinus; dense long hairs in two rows less than or equal to lemma apex, upper row of irregular tufts, lower row of denser longer tufts reaching upper row, glabrous below lower row, single pair of marginal tufts at level of rhacilla apex often extending below, upper surface finely hairy; apex tridentate with two 0.2 mm long lateral lobes and finely ciliate mucro in sinus, 0.2–0.5 mm or absent, usually > lobes. **Callus** 0.10–0.25 mm, rounded-obtuse, disarticulation oblique, marginal hair tufts 0.3–0.5 mm overlapping lower lemma hairs. **Rachilla** 0.3–0.7 mm, glabrous. **Anthers** 0.30–0.75 mm, purple. **Ovary** 0.4–0.5 mm, stipitate; stigma-styles 0.75–1.00 mm. **Seed** 0.8–1.0 mm, stipitate, broadly ovate.

Ephemeral tarn. Photographer: Melissa Hutchison, Date taken: 30/03/2023, Licence: CC BY-NC.

Ephemeral tarn. Photographer: Melissa Hutchison, Date taken: 30/03/2023, Licence: CC BY-NC.

SIMILAR TAXA
Allied to *Rytidosperma pumilum*, from which it differs by its two rows of conspicuous hairs on the lemma, and by its shorter, rounder callus covered in long hairs.

DISTRIBUTION
Endemic. South Island only, inland from mid Canterbury, the MacKenzie Country and from one site at Conroys Road, Alexandra, Central Otago.

HABITAT
A species of intermontane basins, where it grows on the margin of kettleholes, tarns and small ponds.

THREATS
Changes to the hydrologic regime of the intermontane basins in which this species mostly occurs, caused by recent (2005+) changes in local agricultural practises, are resulting in increasingly longer periods of dry conditions. This is favouring the spread of weeds which in turn are outcompeting the indigenous turf vegetation in which this species grows. Ongoing deterioration of these habitats means that this species and many of its associates are probably under serious threat of extinction over large parts of their range.

GENUS
Rytidosperma

FAMILY
Poaceae

AUTHORITY
Rytidosperma telmaticum Connor et Molloy

SYNONYMS
None

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
November–February

FRUITING
January–May

PROPAGATION TECHNIQUE
Easily grown from fresh seed and by division of whole plants. Best kept in a pot, that is partially submerged in water and placed in the full sun. Dislikes humid conditions.

ETYMOLOGY
rytidosperma: Wrinkled seed

MANAAKI WHENUA ONLINE INTERACTIVE KEY
Key to the grasses of New Zealand

NVS CODE
RYTTEL

CHROMOSOME NUMBER
2n = 24

PREVIOUS CONSERVATION STATUSES

2017 | At Risk – Declining | Qualifiers: DP, RR
2012 | At Risk – Declining | Qualifiers: DP, RR
2009 | Threatened – Nationally Vulnerable | Qualifiers: DP, EF, RR
2004 | Not Threatened
Jump to current conservation status

REGIONAL CONSERVATION STATUSES

Otago: 2025 | Regionally Threatened – Regionally Critical | Qualifiers: DPR, DPS, DPT, NR, RR Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

REFERENCES AND FURTHER READING

Molloy BPJ, Connor HE. 2005. Species novae graminum Novae-Zelandiae III. Two diploid species of *Rytidosperma* (Danthonieae: Danthonioideae). *New Zealand Journal of Botany 43*: 721–734.

ATTRIBUTION

Description modified from Molloy and Connor (2005).

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/rytidosperma-telmaticum/

PDF DATE

07 June 2026