

HENNEDIELLA

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Hennediella Paris, *Index Bryol.* 557 (1896); named after Roger Hennedy (1809–1876), Scottish professor of botany and teacher of Robert Brown (of Christchurch, New Zealand).

Hennedia R.Br.bis., *Trans. & Proc. New Zealand Inst.* 25: 285 (1893), *nom. illeg., non Hennedy* Harv. (1855)

Type: *H. macrophylla* (R.Br.bis.) Paris

Monoicous or dioicous. Plants small, forming turfs or loose cushions on soil or rock; stem with a central strand. Leaves oblong-lanceolate to elliptical or broadly ovate; costa percurrent or excurrent and forming a short mucro, in section with a well-developed abaxial stereid band; margin bordered by elongate thick-walled cells, occasionally bistratose or tristratose in some species, entire below, denticulate at the apex. Laminal cells ±densely papillose to smooth; upper laminal cells quadrate to subquadrate; basal cells rectangular; lamina KOH colour reaction red. Sporophytes highly variable

A predominantly Southern Hemisphere genus of 15–20 species, *Hennediella* occurs on soil and rock in wet areas. One species, *H. stanfordensis*, is known from continental Australia. A second taxon, *H. heimii* (Hedw.) R.H.Zander, occurs on Subantarctic Macquarie Island and possibly in Tasmania.

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Leaves oblong to lanceolate; margins unistratose; sporophytes common **1. H. heimii**
Leaves ovate to lingulate, occasionally spatulate; margins bistratose; sporophytes not seen in Australia
..... **2. H. stanfordensis**

1. *Henediella heimii* (Hedw.) R.H.Zander, *Bull. Buffalo Soc. Nat. Sci.* 32: 248 (1993)

Gymnostomum heimii Hedw., *Sp. Musc. Frond.* 32 (1801); *Pottia heimii* (Hedw.) Fühnr., *Flora* 20: 287 (1837); *Desmatodon heimii* (Hedw.) Mitt., *J. Proc. Linn. Soc.* 8: 28 (1864). T: Uppsala, Sweden; lecto: G n.v., fide Cano (2008).

Illustrations: R.H.Zander, *op. cit.* 244, pl. 96, figs 18–21; R.D.Seppelt, *Moss Fl. Macquarie Island* 230, fig. 91 (2004).

Monoicous (Cano, 2008). Plants simple, forming turfs 8–10 mm tall, yellowish green to green. Leaves oblong to lanceolate, 1–3 mm long, 0.5–1.0 mm wide, appressed when dry, spreading when moist; apex denticulate; costa excurrent as a short mucro; margin consisting of 1 or 2 rows of elongate cells forming an inconspicuous border. Upper laminal cells densely papillose to ±smooth, subquadrate-hexagonal, 8–10 µm wide; basal laminal cells smooth and hyaline, rectangular, 27–30 × 23–25 µm.

Calyptra cucullate. Seta 0.8–1.5 mm long, brown, twisted to the right. Capsule erect, ovoid, brown, 1.5–2.0 mm long; operculum flat, rostrate. Peristome lacking. Spores globose, brown, 30–36 µm diam.

This highly variable species is abundant in coastal habitats on Macquarie Island, and it is widely distributed in colder areas of the Northern and Southern Hemispheres, including the Subantarctic islands and Antarctica. It appears to be rare and was possibly introduced by man in New Zealand. Its occurrence in Tasmania requires confirmation. Two of only three historic records lack precise locality details. Sainsbury (1953) confirmed the third specimen (from Hobart, but undated), noting some morphological aberration. It is possible that the species was introduced into Tas., but it is not known if it has survived.

Australia: locality unknown, 29 May 1871, *Dr Dickie s.n.* (MEL).

Tas.: locality unknown, *W.A.Weymouth 2884* (HO); The Domain, Hobart, *L.Rodway 4C* (HO 82376).

Macquarie Island: Hasselborough Bay, *R.Waterhouse A63* (MEL); Aurora Hut Hill, ANARE Stn, The Isthmus, *R.D.Seppelt 7505* (HO); The Isthmus, *B.W.Taylor 6B* (CANB, HO, MEL); Wireless Hill, *R.Waterhouse A42* (MEL); *loc. id.*, *D.H.Ashton 24* & *N.Laird 2a* (MEL); Gadgets Gully, *R.Waterhouse A86* (MEL); *locality unknown*, *R.J.Hnatiuk11548, 11549* (MEL).

2. *Henediella stanfordensis* (Steere) Blockeel, *J. Bryol.* 16: 191 (1990)

Tortula stanfordensis Steere, *Bryologist* 54: 119 (1951); *Hyophila stanfordensis* (Steere) A.J.E.Sm. & H.Whitehouse, *J. Bryol.* 8: 13 (1974). T: Stanford University Campus, California, U.S.A., 26 Mar. 1951; holotype: location unknown; iso: NY n.v.

Illustrations: W.C.Steere, *op. cit.* 121, figs 1–9; A.J.E.Smith, *Moss Fl. Britain & Ireland* 248, fig. 113 (1978); R.H.Zander, *op. cit.* 247, pl. 98; B.Malcolm, N.Malcolm, J.Shevock & D.Norris, *California Mosses* 131 (2009).

Usually dioicous (Cano, 2008). Plants to 3 mm tall, yellowish to pale green, forming loose cushions or turfs. Rhizoids smooth, brown, abundant at the base of the stem. Leaves ovate to lingulate, occasionally spatulate, 0.9–1.2 mm long, 0.4–0.5 mm wide, incurved when dry, spreading when moist; upper leaves usually smaller; apex obtuse and apiculate; costa excurrent, forming a small mucro; margin plane below, denticulate near the apex, bordered almost to the apex by 2–4 rows of elongate bistratose thick-walled cells to 70 × 5 µm, with scattered papillae. Upper laminal cells ±quadrate, 11–16 µm wide, strongly papillose; basal cells quadrate to rectangular, 22–34 × 16–20 µm, hyaline. No sexual reproductive stages have been observed in Australian material.

This adventive species of disturbed habitats is known from only a few localities in S.A., N.S.W. and Vic.; also in California, western Canada, Mexico and Europe.

S.A.: Black Rock, Mount Bold Reservoir Reserve, *G.H.Bell 1713* (AD); c. 3 km S of Point Pass on Eudunda–Robertstown railway corridor, *H.P.Vonow 2022, 2023* (AD).

N.S.W.: Lachlan R., 14 km NW of Cowra, *H.Streimann 4889, 4890* (AD).

Vic.: Pyramid Hill, *I.G.Stone 9420, 11012* (MEL); Loddon R., S of Serpentine, *I.G.Stone 14472–14474* (MEL); tributary of Buchan R., Native Dog Flat, *I.G.Stone 10717* (MEL); Gorae West, *A.C.Beauglehole 1472* (MEL); Monash University Campus, *G.A.M.Scott & E.Kerry [IGS 9542]* (MEL).

The biogeographical origin of this species in Australia is uncertain, since its distribution appears to be primarily adventive, and mature sporophytes have never been documented. One specimen with immature capsules is known from Britain.