

TRACHYCARPIDIUM

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Trachycarpidium Broth., in H.G.A.Engler, *Nat. Pflanzenfam.* I, 3: 383 (1902); from the Greek *trachys* (rough) and *karpus* (a fruit), in reference to the appearance of the capsules.

Type: *T. verrucosum* (Besch.) Broth.

Dioicous. Plants small and gregarious or forming a thin turf, pale green, with numerous persistent protonemata. Stems very short, usually unbranched, with long red-brown basal rhizoids; central strand weak. Leaves slightly twisted when dry, erect-spreading when moist, with plane and entire margins; costa strong, short-excurrent, in section with 2 stereid bands, the adaxial often weaker. Upper laminal cells small, quadrate, papillose; basal laminal cells smooth, elongate, rectangular, thin-walled, extending higher at the margins; laminal KOH colour reaction yellow.

Calyptra small, conical, flaring at the base, scarcely covering the apiculus. Setae very short; vaginula short. Capsules erect, cleistocarpous, spherical, with a short blunt apiculus; exothecial cells pustular or verrucose. Spores brown, papillose.

This genus of five species is known from Brazil, West Africa, Central Africa, SE Asia, New Guinea and New Caledonia. One species occurs in eastern Australia.

References

- Stone, I.G. (1975), *Trachycarpidium* in Queensland, Australia, *Muelleria* 3: 122–129.
- Stone, I.G. (1980), *Weissia* subgenus *Astomum* in Australia and some comments on the affinities of *Viridivellus*, *J. Bryol.* 11: 231–243.
- Zander, R.H. (1993), Genera of the Pottiaceae: mosses of harsh environments, *Bull. Buffalo Soc. Nat. Sci.* 32: 1–378.
- Zander, R.H. & During, H.J. (1999), *Neophoenix* (Pottiaceae), a new African moss genus found through soil diaspore bank analysis, *Taxon* 48: 657–662.

Trachycarpidium brisbanicum (Müll.Hal.) I.G.Stone, *Muelleria* 3: 122 (1975)

Acaulon brisbanicum Müll.Hal., *Linnaea* 37: 144 (1871); *Sphaerangium brisbanicum* (Müll.Hal.) A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1871–72: 336 (Ad. 1: 184) (1873); *Astomum brisbanicum* (Müll.Hal.) Broth., in H.G.A.Engler, *Nat. Pflanzenfam.* I, 3: 384 (1902). T: near Brisbane, Qld, 1864, A.Dietrich; n.v.

Astomum wattsii Broth. ex G.Roth, *Hedwigia* 54: 270 (1914). T: 'Kingwell', Wyong, N.S.W., 12 Aug. 1909, W.W.Watts 9747a; syn: NSW; loc. id., 14 June 1910, W.W.Watts 10088; syn: NSW.

Illustrations: I.G.Stone, *op. cit.* 123, fig. 1; 125, fig. 2; R.H.Zander, *op. cit.* 32: 212, pl. 80(1–10).

Stems to 0.5 mm tall. Leaves sparse, mostly fewer than 12, crowded at the apex; basal leaves ovate, 0.1–0.2 mm long, increasing to 0.8–1.3 mm long above; costa percurrent in outer leaves to excurrent and forming a cusp. Upper laminal cells quadrate, 7–10 µm wide; basal cells rectangular, 6–40 × 9–12 µm.

Perichaetial leaves 1.5–2.0 mm long. Setae c. 50 µm long. Capsules subglobose, c. 0.35 mm wide, pale yellow. Spores globose, 16–25 µm diam.

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This endemic species is known from eastern Qld and N.S.W.; grows on soil, often mixed with other mosses.

Qld: Millstream Falls, Ravenshoe, *I.G.Stone 15675* (MEL); Upper Murray R., Cardwell, *I.G.Stone 18630* (MEL); Kirrama S.F., *A.Thosborne [IGS21326]* (MEL); Porter Ck, Cardwell, *I.G.Stone 23137, 23147, 23161* (MEL); Wallaman Falls, *I.G.Stone 14688A* (MEL); Dripping Rocks Track, Cania Gorge Natl Park, near Monto, *I.G.Stone 20962* (MEL); Cania Gorge, *I.G.Stone 21030, 21053* (MEL); Derrier, Imbil S.F., *I.G.Stone 22893* (MEL); Pistol Club entrance, Nambour–Maroochydore, *I.G.Stone 4590* (MEL); Mt Nebo, *I.G.Stone 13126, 13134* (MEL); Enoggera Ck, Brisbane, *I.G.Stone 4721, 4725, 4731* (MEL); Enoggera Ck, The Gap, Brisbane, 14 Aug. 1969, *I.G.Stone s.n.* (MEL); Blue Pool, Lamington Natl Park, *I.G.Stone 17597* (MEL).

N.S.W.: Dungog, *I.G.Stone 11871* (MEL).

When fertile this species can be distinguished from other Pottiaceae by the cleistocarpous capsules bearing distinct protruberances on the exothecium.

Although *T. verrucosum* (Besch.) Broth. was reported from Australia in an unpublished duplicated list (W.A.Weber, *Preliminary List of Mosses of the Australian Capital Territory*, 1968), this was an error based on a misidentified specimen of *Bryobartramia novae-valesiae* (G.Roth) I.G.Stone & G.A.M.Scott.