

## TRACHYTHECIUM

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*Trachythecium* M.Fleisch., *Musc. Buitenzorg* 4: 1415 (1923); from the Greek *trachys* (rough) and *theke* (a case or container), in reference to the warty capsules.

T: not designated.

Autoicous. Stems creeping, ±regularly pinnately branched; branches rarely subdivided, terete-foliate; in cross section with 2 or 3 layers of small thick-walled cells surrounding broader thin-walled cells; central strand present. Pseudoparaphyllia foliose. Stem and branch leaves somewhat different; stem leaves generally broader and more abruptly acuminate; branch leaves erecto-patent, occasionally slightly falcate-secund, ovate-lanceolate, ±abruptly acuminate, concave; margin entire to crenulate; costa short and double, faint. Laminal cells linear, prosenchymatous, weakly to indistinctly prorulate, firm-walled, not pitted; alar cells solitary in leaf corners, hyaline, inflated, frequently with a small triangular group of subquadrate subhyaline supra-alar cells.

Perichaetial leaves ovate-lanceolate, gradually long-acuminate. Calyptra cucullate. Seta smooth. Capsules exserted, horizontal, broadly ovoid, warty; exothecial cells rounded, thin-walled, weakly collenchymatous, mammillose; stomata at the base of the capsule, phaneropore; annulus differentiated. Peristome hypnoid; cilium 1. Operculum conical, with a short straight rostrum. Spores spherical, slightly papillose.

*Trachythecium* includes nine poorly known species in Sri Lanka, SE Asia, Malesia, southern China, north-eastern Australia and south-western Pacific islands. It is characterised by having warty capsules, caused by mammillose exothecial cells. Goffinet *et al.* (2008, 2012) placed *Trachythecium*, together with other genera with ornamented capsule walls, in the Symphyodontaceae, but it has been retained in Hypnaceae for the purpose of this treatment, because *Chaetomitrium*, the other Australian representative of Symphyodontaceae, is treated here as part of the Hookeriaceae.

### References

Goffinet, B., Buck, W.R. & Shaw, A.J. (2008), Morphology, anatomy and classification of the Bryophyta, in B.Goffinet & A.J.Shaw (eds), *Bryophyte Biology*, 2nd edn, 55–138.

Goffinet, B., Buck, W.R. & Shaw, A.J. (2012), *Classification of the Bryophyta* <http://www.eeb.uconn.edu/people/goffinet/Classificationmosses.html>.

***Trachythecium verrucosum*** (A.Jaeger) M.Fleisch., *Musc. Buitenzorg* 4: 1415 (1923)

*Ectropothecium verrucosum* A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1877–78: 272 (1879) [Ad. 2: 536]. T: Java, [Indonesia], *P.W.Korthals* & *F.W.Junghuhn*; Bogor Botanical Garden, [Java, Indonesia], *W.S.Kurz*; Mt Gedeh and Mt Salak, [Indonesia], *J.E.Teysmann*; Sumatra, [Indonesia], *P.W.Korthals*.

Plants small, individual fronds to c. 15 mm long, green to dirty yellowish green, forming smooth mats. Stems creeping, intertwined, pinnately branched, terete-foliate. Branch leaves erecto-patent, occasionally slightly falcate-secund, ovate-lanceolate, 0.4–0.7 mm long, 0.15–0.26 mm wide, somewhat abruptly acuminate; margin entire to crenulate, plane; costa short and double, faint; Laminal cells linear, 45–65 (–70) µm long, 4–7 µm wide, weakly to indistinctly prorulate, firm-walled, not pitted.

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Perichaetial leaves ovate-lanceolate, gradually long-acuminate. Seta 5–8 mm long, reddish brown below. Capsules horizontal, broadly ellipsoidal, 0.7–1.0 mm long, warty. Peristome hypnoid; cilium 1. Spores 9–14 µm diam.

Only known from Mossman Gorge in north-eastern Qld; on tree bases in rainforest. Also in Sri Lanka, SE Asia, Malesia, southern China and New Caledonia.

Qld: Mossman Gorge, *L.J.Brass 18167, 18178* (FH).

The specimen label indicates this species was common at Mossman Gorge at the time of collection in the 1930s. Although it is surprising that it has not been seen since, it is possible that later collections of *T. verrucosum* have been misidentified as *Ectropothecium*.