MACROCOMA

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Macrocoma (Hornsch. ex Müll.Hal.) Grout, *Bryologist* 47: 4 (1944); from the Greek *macro* (large) and *coma* (a tuft of hairs), in reference to the long hairs on the calyptra.

Type: *M. filiforme* (Hook. & Grev.) Grout

Macromitrium sect. *Macrocoma* Hornsch. ex Müll.Hal., *Bot. Zeitung (Berlin)* 3: 522 (1845); *Macromitrium* subg. *Macrocoma* (Hornsch. ex Müll.Hal.) Broth., *Nat. Pflanzenfam*. I, 3: 477 (1902).

Autoicous. Plants slender to filiform, forming dull tangled olive-brown mats. Stems creeping, irregularly and subpinnately branched, with erect ascending widely spaced slender terete branches. Branch leaves regularly arranged, imbricate, forming spiralled ranks, tightly erect-appressed when dry, erect-spreading when moist, narrowly lanceolate-ligulate, keeled; apex bluntly acute to obtuse; margin entire; costa strong, ending near the apex; upper laminal cells rounded to hexagonal, smooth, flat; basal cells linear to rectangular, thick-walled, bulging or mammillose (especially near the leaf base). Gemmae rare, fusiform.

Calyptra large, covering the capsule, mitrate, plicate, hairy. Setae elongate, smooth. Capsules on erect secondary branches, exserted, cylindrical or fusiform, usually plicate when dry and empty (at least at the mouth); operculum conico-rostrate. Peristome double; exostome sometimes reduced to a membrane; endostome consisting of a pale delicate papillose membrane or with 16 short blunt segments. Spores unicellular, globose, isomorphic, finely papillose.

Known from southern Africa, East Asia, Australasia and western North America. Only one of the nine species occurs south of the Equator, being present in Australia, New Zealand and southern Africa.

Macrocoma is separated from *Macromitrium* by the slender, terete, widely spaced and widely spreading branches, appressed leaves, short cells of the leaf bases, and the large, hairy, mitrate calyptrae.

References

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Macrocoma tenuis (Hook. & Grev.) Vitt, *Rev. Bryol. Lichénol*. 39: 217 (1973)

subsp. **tenuis**

Orthotrichum tenue Hook. & Grev., *Edinburgh J. Sci*. 1: 120 (1824); *Macromitrium tenue* (Hook. & Grev.) Brid., *Bryol. Univ*. 1: 740 (1826). T: Cape of Good Hope, [South Africa], *A.Menzies* & *W.J.Burchell*; lecto: BM, *fide* D.H.Vitt & H.P.Ramsay, *J. Hattori Bot. Lab*. 59: 429 (1985); isolecto: BM, E; syn: BM.

Macromitrium eucalyptorum Müll.Hal. & Hampe, *Linnaea* 26: 500 (1855). T: Bunyip Ck, Vic., *F.Mueller s.n.*; lecto: BM, *fide* D.H.Vitt & H.P.Ramsay, *J. Hattori Bot. Lab*. 59: 429 (1985); isolecto: NY.

Macromitrium johnsonii Hampe, *Linnaea* 40: 308 (1867), *nom. nud*. (in synon.).

Macromitrium geheebii Müll.Hal., *in* G.Hampe, *Linnaea* 40: 308 (1876). T: Illawarra, N.S.W., 1875, *Johnson s.n.*; lecto: BM, *fide* D.H.Vitt & H.P.Ramsay, *J. Hattori Bot. Lab.* 59: 429 (1985).

Macromitrium novae-valesiae Müll.Hal., *Hedwigia* 37: 143 (1898). T: N.S.W., locality unknown, 1872, *D.Kayser*; lecto: M, *fide* D.H.Vitt & H.P.Ramsay, *J. Hattori Bot. Lab.* 59: 430 (1985).

Illustrations: D.H.Vitt, *op. cit.* 218, figs 8–10; G.A.M.Scott & I.G.Stone, *The Mosses of Southern Australia* 235, pl. 44 (1976), as *Macromitrium tenue*; D.G.Catcheside, *op. cit.* 212, fig. 114, as *Macromitrium tenue*.

Leaves stiffly erect-imbricate when dry, lanceolate, 0.7–1.0 mm long; apex bluntly acute to obtuse; upper laminal cells uniform, 7–10 µm wide, smooth; basal laminal cells slightly larger and convex or mammillose.

Setae c. 10 mm long. Capsules cylindrical, c. 1.2 mm long, 0.5 mm wide, deeply grooved and plicate at the mouth. Peristome rudimentary; exostome reduced to a membrane; endostome a low hyaline papillose membrane. Spores 22–30 µm diam. n = 11, *fide* H.P.Ramsay & D.H.Vitt, *J. Hattori Bot. Lab*. 61: 25–26 (1986).

Occurs in southern S.A., Qld, N.S.W., Vic. and Tas.; grows in rainforest margins, and common in wet coastal forests, but found primarily at higher elevations from southern Qld to the Northern Tablelands of N.S.W.

S.A.: near summit, Mt Lofty, *D.G.Catcheside 79.111* (AD). N.S.W.: "Demarque", Mt Wilson, *W.W.Watts 10376* (NSW); Mt Wilson, *W.W.Watts 10310* (NSW); Jenolan Caves, *H.P.Ramsay S1177* (NSW). Vic.: Sherbrooke Forest, Dandenong Ra., 5 May 1951, *J.H.Willis* (MEL).

This moss is light-tolerant, xerotolerant and is adapted to growing on the small branches and trunks of exotic trees and shrubs on the fringes of rainforest. Scott & Stone (*The Mosses of Southern Australia* 232, 1976) reported a form with axillary bulbils from King Island, Bass Strait.