

## CYCLODICTYON<sup>1</sup>

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*Cyclodictyon* Mitt., *J. Linn. Soc., Bot.* 7: 163 (1864); from the Greek *cyclos* (a circle) and *dictyon* (a net), in reference to the distinctive leaf cell outlines.

Type: *C. laetevirens* (Hook. & Taylor) Mitt.

Synicous, monoicous or dioicous. Plants medium-sized, rather delicate, pale green, flat. Leaves complanate, oblong-ovate, short-acuminate; border narrow, dentate above; costa double, extending to beyond mid-leaf. Laminal cells large, smooth, loosely areolate, rounded-hexagonal.

Calyptra fringed. Seta smooth. Capsules variously inclined. Exostome teeth striolate. Spores smooth to weakly papillose.

A mainly tropical genus of c. 90 species, *Cyclodictyon* is most diverse in Africa and the Neotropics; one species in tropical and subtropical eastern Australia.

### Reference

Streimann, H. (1997), Taxonomic studies on Australian Hookeriaceae (Musci). 1: Introduction, and the genera *Achrophyllum*, *Callicostella*, *Chaetomitrium* and *Cyclodictyon*, *J. Hattori Bot. Lab.* 82: 281–304.

### *Cyclodictyon blumeanum* (Müll.Hal.) Kuntze, *Revis. Gen. Pl.* 2: 835 (1891)

*Hookeria blumeana* Müll.Hal., *Syn.* 2: 676 (1851). T: Java, [Indonesia], *C.L. von Blume*; holo: B n.v. (destroyed?); iso: NY.

*Hookeria lepida* Mitt., *Trans. & Proc. Roy. Soc. Victoria* 19: 78 (1882); *Cyclodictyon lepidum* (Mitt.) Broth. & Watts, *Proc. Linn. Soc. New South Wales* 43: 561 (1918). T: Bellenden Ker Ra., Qld, *Karsten*; holo: NY n.v.; iso: H, MEL.

*Hookeria karsteniana* Broth. & Geh., *Öfvers. Förh. Finska Vetensk.-Soc.* 35: 52 (1893); *Cyclodictyon karstenianum* (Broth. & Geh.) Broth., in H.G.A.Engler & K.A.E.Prantl, *Nat. Pflanzenfam.* I, 3: 934 (1907). T: Bellenden Ker Ra., Qld, *Karsten*; holo: H; iso: MEL.

Illustrations: H.O.Whittier, *Mosses of the Society Islands* 275 (1976); H.Streimann, *op. cit.* 299; W.R.Buck, D.H.Vitt & W.M.Malcolm, *Key to the Genera of Australian Mosses* 18 (2002).

Synicous or monoicous. Plants medium-sized, drying straw-coloured to light green. Stems to 4 cm long, irregularly short-branched. Leaves erecto-patent and slightly curled when dry, straight and erect when moist, weakly complanate, oblong-lingulate to ovate to oblong-lanceolate, 1.2–1.9 mm long, 0.4–1.0 mm wide, broadly acute to short-acuminate, the apiculus to 140 µm long; margin toothed in the distal half, often weakly; costa slender, 1–3 cells wide, c. three-quarters the leaf length, with spines on the distal abaxial surface. Laminal cells hyaline, irregularly hexagonal; marginal cells linear to narrowly rectangular, converging at the apex, 70–90 × 4–12 µm, largest at mid-leaf; upper cells 25–60 × 22–40 µm; median cells 30–60 × 24–40 µm; basal cells elongate-hexagonal to irregularly rectangular, 60–100 × 15–30 µm. Rhizoids sparse, in clusters, pale red, opaque, smooth, to 2 mm long, 14–18 µm wide; cells to 160 µm long.

Perichaetia axillary; perichaetial leaves broadly lanceolate, c. 1.2 mm long and 0.4 mm wide, acuminate, weakly toothed, ecostate; laminal cells thin-walled; upper cells rounded-

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<sup>1</sup> Now in the family Pilotrichaceae [Goffinet, B., Buck, W.R. & Shaw, A.J. (2012), *Classification of the Bryophyta*. <http://www.eeb.uconn.edu/people/goffinet/Classificationmosses.html>].

Cite as: H.Streimann, *Australian Mosses Online. 11. Hookeriaceae: Cyclodictyon*. [http://www.anbg.gov.au/abrs/Mosses\\_Online/Cyclodictyon.pdf](http://www.anbg.gov.au/abrs/Mosses_Online/Cyclodictyon.pdf) (2012)

hexagonal, c.  $30 \times 20 \mu\text{m}$ ; median cells hexagonal, c.  $30 \times 20 \mu\text{m}$ ; basal cells longer; margins 2 or 3 cells wide, the cells linear, c.  $70 \times 10 \mu\text{m}$ . Calyptra smooth, covering the capsule. Seta red, 12–20 mm long. Capsules dark brown, mammillose, suberect to cernous, ovoid-cylindrical, 1.5–2.0 mm long. Peristome: exostome teeth slightly curved inward, brown, c.  $350 \mu\text{m}$  long,  $90\text{--}100 \mu\text{m}$  wide at the base, transversely striolate; upper section abruptly tapered, hyaline, strongly papillose; endostome segments hyaline, papillose, as long as the teeth, c.  $40 \mu\text{m}$  wide at the base; cilia rudimentary. Spores 8–12  $\mu\text{m}$  diam.

Known from wet forest in eastern Qld and north-eastern N.S.W.; often on creek banks, rocks and soil, occasionally on tree trunks and on wood. Also in SE Asia, Malesia, and among the Pacific islands as far east as French Polynesia.

Qld: Mt Lewis, near Mossman, c. 100 km NW of Cairns, *B.O. van Zanten 681368* (GRO); Wright Ck, L. Eacham, 16 km E of Atherton, *H.Streimann 16886* (CANB, H, NY); “Hellhole Gorge”, Koolaroo Ck, Carnarvon Natl Park, 93 km N of Injune, *H.Streimann 52092* (*Musci Austral. Exs.* 310) (CANB); Blackall Ra., *F.Whitteron s.n.* (MEL 1001992–5). N.S.W.: Rous Falls, Richmond R., *W.W.Watts 4840* (MEL, NSW); Dalwood Falls, Richmond R., *W.W.Watts 4423* (NSW).

This moss is readily recognised by having delicate leaves with broad laminal cells, the outlines of which are clearly visible in dry specimens.

Ripe capsules were common from July to October.