

## HOOKERIOPSIS<sup>1</sup>

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*Hookeriopsis* (Besch.) A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1875–76: 358 (1877) [Ad. 2: 262]; from the genus name *Hookeria* and the Latin suffix *-opsis* (resembling or having the appearance of), alluding to its similarity to *Hookeria*.

*Hookeria* sect. *Hookeriopsis* Besch., *Ann. Sci. Nat., Bot.*, sér. 6, 3: 240 (1876).

Type: Not designated.

Plants medium-sized, irregularly branched, densely foliate. Lateral leaves spreading, slightly contorted when dry, coarsely and irregularly serrate in the upper half, often twinned; costa double extending more than half the leaf length. Laminal cells smooth to weakly prurulose.

Calyptra smooth, with a fringed base. Seta smooth or rough. Capsules horizontal or pendent.

This moderately large, tropical and subtropical genus (c. 80 species) occurs in Africa, Central and South America and, less commonly, in SE Asia, Australia and the Pacific. One species is known from tropical Australia.

*Hookeriopsis* can be mistaken for *Callicostella*, but the latter has a longer nerve, the leaf margins are not as strongly denticulate, and the leaf cells are shorter. Buck (*Brittonia* 39: 215, 1987) suggested that *Hookeriopsis* was not a natural grouping, containing species that could not be readily accommodated in other well-defined genera. He placed all Old World species into *Thamniopsis*. Tan & Robinson (1990) agreed that the species composition was too diverse, but they, along with Lin & Tan (1995), preferred to retain *Hookeriopsis*.

### References

Lin, P.-J. & Tan, B.C. (1995), contributions to the bryoflora of China (12): A taxonomic revision of the Chinese Hookeriaceae (Musci), *Harvard Pap. Bot.* 7: 25–68.

Streimann, H. (2000), Taxonomic studies on Australian Hookeriaceae (Musci). 3. The genera *Calyptrochaeta*, *Daltonia*, *Hookeriopsis* and *Sauloma*, *J. Hattori Bot. Lab.* 88: 101–138.

Tan, B.C. & Robinson, H. (1990), A review of Philippine hookeriaceous taxa, *Smithsonian Contr. Bot.* 75: 1–41.

***Hookeriopsis utacamundiana*** (Mont.) Broth., in H.G.A.Engler & K.A.E.Prantl, *Nat. Pflanzenfam.* I, 3: 942 (1907)

*Hookeria utacamundiana* Mont., *Ann. Sci. Nat., Bot.*, sér. 2, 17: 247 (1842). T: near Ootacamund, Nilghiri Mtns, India, G.S.Perrottet s.n.; holotype: PC n.v.; isotype: NY n.v.

Illustrations: H.C.Gangulee, *Mosses of Eastern India and adjacent Regions* 2(6): 1513, 1515 (1977), as *H. secunda* (Griff.) Broth.; A.Noguchi, *Illustrated Moss Flora of Japan* 4: 757 (1991); P.-J.Lin & B.C.Tan, *Harvard Pap. Bot.* 7: 48, 49, 67 (1995); H.Streimann, *op. cit.* 131, fig. 17.

Autoicous. Plants prostrate, to 5 cm long, yellowish green to dark green. Leaves often with a purple tinge, slightly twisted when dry, undulate when moist, ovate to ovate-oblong, (1.50–) 1.70–1.88 mm long, 0.65–0.78 mm wide, usually symmetrical, smaller lateral leaves asymmetrical; apex obtuse; base weakly narrowed; margin erect, broadly inflexed on one side of the base (concave), entire below, serrulate at mid-leaf, coarsely irregularly denticulate above; teeth irregular, double, often faint; costa double, divergent, slender,

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

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extending almost up to half the leaf length or beyond, asymmetrically positioned at the base. Laminal cells thin-walled, hexagonal to oval-hexagonal; upper laminal cells 24–30 (–53)  $\times$  12–15  $\mu\text{m}$ ; median cells narrowly rhomboidal to rhomboidal, 37–45 (–54)  $\times$  10–12  $\mu\text{m}$ , weakly prorulose; basal cells narrowly rectangular, 75–100  $\mu\text{m}$  long, linear-elongate towards the margin, not forming a distinct border. Stem leaves similar to branch leaves. Rhizoids reddish brown, axillary, branched, to 1.05 mm long, 15–17  $\mu\text{m}$  wide; cells c. 100  $\mu\text{m}$  long.

Perigonia in the axils of lower leaves, bud-like, below perichaetia. Inner perigonial leaves cymbiform, c. 0.8 mm long; antheridia few to numerous, slightly longer than paraphyses. Inner perichaetial leaves ovate-lanceolate, c. 1.0–1.2 mm long, acute, entire or serrulate above, ecostate. Calyptra narrowly mitrate. Seta slender, reddish brown, 6–16 mm long, smooth below, rough above. Capsules c. 1.5 mm long, horizontal or pendent, ovoid-cylindrical; apophysis long, mammillose; annulus absent; operculum conical-rostrate, 0.5–0.9 mm long. Peristome: exostome teeth lanceolate, yellowish brown, c. 0.40–0.48 mm long, transversely striate, broadly furrowed along the median line; endostome segments hyaline, papillose; basal membrane less than half the length of the teeth; cilia absent. Spores smooth, 12–18  $\mu\text{m}$  diam.

Known from montane forest in eastern and north-eastern Qld. Widespread from Asia to Oceania, including Sri Lanka, India, Thailand, Vietnam, China, the Philippines, Japan, Indonesia, Papua New Guinea and the Hawaiian Islands.

Qld: Mt Haig, *I.G.Stone* 22299A (MELU); Mt Bellenden Ker, *I.G.Stone* 16866 (MELU); Eungella Natl Park, *I.G.Stone* 17122 (MELU).