

CTENIDIUM

Niels Klazenga¹

Ctenidium (Schimp.) Mitt., *J. Linn. Soc., Bot.* 12: 509 (1869); from the Greek *ktenos* (a comb), in reference to the neatly pinnate branching.

Hypnum subg. *Ctenidium* Schimp., *Syn. Musc. Europ.* 631 (1860).

Type: *C. molluscum* (Hedw.) Mitt.

Dioicous or, rarely, phylloidioicous. Stems creeping to ascending, regularly to irregularly pinnately branched, terete-foliate, occasionally weakly complanate; in cross section with 3–5 layers of small thick-walled cells surrounding broader thin-walled cells; central strand present. Pseudoparaphyllia foliose. Stem and branch leaves variously differentiated; branch leaves erecto-patent, straight to curved, broadly ovate- to triangular-lanceolate, gradually to abruptly acuminate, cordate and decurrent at the base, weakly to distinctly channelled at the base of the acumen; margin serrulate to serrate; costa short and double, ±faint. Laminal cells linear, slightly vermicular, thin- to thick-walled, not or scarcely pitted; alar cells ±differentiated.

Perichaetial leaves ovate- to triangular-lanceolate, occasionally plicate. Calyptra cucullate, hairy. Seta smooth to slightly rough. Capsules exserted, suberect to horizontal, ellipsoidal to cylindrical; exothecial cells elliptic to rectangular, with lateral walls usually thicker than end walls; stomata at the base of the capsule, phaneropore; annulus differentiated. Peristome hypnoid, with 1–3 cilia; operculum conical, acuminate or with a short straight rostrum. Spores spherical, finely papillose.

A genus of 21 species in North and South America, Europe, Asia, Australasia and in islands in the Pacific Ocean; it is most diverse in East Asia and Malesia. *Ctenidium* is characterised by long-decurrent cordate leaf bases and leaf margins that are serrate throughout (Nishimura, 1985).

Although *Ctenidium* has traditionally been included in the Hypnaceae, it has been classified in the Hylocomiaceae by Goffinet *et al.* (2008, 2012).

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>.

Nishimura, N. (1985), A revision of the genus *Ctenidium* (Musci), *J. Hattori Bot. Lab.* 58: 1–82.

Ctenidium pubescens (Hook.f. & Wilson) Broth., in H.G.A.Engler & K.A.E.Prantl, *Nat. Pflanzenfam.* 1, 3: 1048 (1908)

Hypnum pubescens Hook.f. & Wilson, *Fl. Nov.-Zel.* 2: 113 (1854). T: Auckland, New Zealand, *Sinclair*; holo: BM n.v.

Illustrations: N.Nishimura, *op. cit.* 34, fig. 14; W.R.Buck, D.H.Vitt & W.M.Malcolm, *Key to the Genera of Australian Mosses* 15 (2002).

Plants small to medium-sized, pale green to yellowish green, forming smooth mats. Stems to 2 cm long, creeping, intertwined, regularly to irregularly pinnately branched, complanate- to

¹ Royal Botanic Gardens Melbourne, Birdwood Avenue, South Yarra, Vic. 3141.

almost terete-foliate. Stem leaves larger than branch leaves; branch leaves erecto-patent, straight to curved, ovate- to triangular-lanceolate, 0.8–1.2 mm long, 0.25–0.40 mm wide, gradually narrowed into a short or long and often twisted acumen, cordate, decurrent; margin serrate throughout, weakly undulate; costa short and double, faint. Laminal cells linear, 50–70 (–80) × 3–6 μm, weakly prorulate, firm-walled, not pitted.

Seta to 15 mm long, reddish brown, almost smooth. Capsules inclined to horizontal, narrowly ellipsoidal, 1.0–1.5 mm long; operculum with a short beak. Spores 13–18 μm diam.

Occurs in south-eastern Qld, the east coast of N.S.W. and eastern Vic.; in wet-sclerophyll forest and temperate rainforest, on rocks, tree bases and rotting wood, rarely terrestrial; from sea level to c. 1400 m. Also in Lord Howe Island and New Zealand.

Qld: Kondalilla Falls, *I.G.Stone 18114* (MEL). N.S.W.: Weeping Rocks, New England Natl Park, 72 km E of Armidale, *H.Streimann 52008* (CANB). Vic.: Mt Drummer, Alfred Natl Park, *J.H.Willis s.n.* (MEL).

Ctenidium pubescens is readily recognised by its cordate and conspicuously decurrent leaf bases and the serrate leaf margins.