

AUSTROHONDAELLA

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Austrohondaella Z.Iwats., H.P.Ramsay & Fife, *Telopea* 12: 362 (2009); emphasising morphological similarities to the genus *Hondaella* Dixon & Sakura and the Australasian distribution of the type species.

Type: *A. limata* (Hook.f. & Wilson) Z.Iwats., H.P.Ramsay & Fife

Dioicous. Stems creeping, irregularly branched, with a weak central strand; epidermal cells small and ±thick-walled in cross-section. Pseudoparaphyllia narrowly foliose, the base 2–4 cells wide. Rhizoids axillary, red, papillose. Leaves narrowly lanceolate to ovate-lanceolate, often falcate to falcate-secund; base rounded, not decurrent; upper part of the leaf gradually narrowed to an acuminate to piliferous apex; costa absent or weak and double. Median laminal cells linear to subvermicular; basal cells shorter; alar cells not differentiated.

Perichaetia lateral on stems; perichaetial leaves lanceolate, entire, ecostate; apices narrowly acute. Calyptra cucullate. Seta long-exserted. Capsules cylindrical, erect, usually symmetrical; operculum bluntly conical; apex obtuse; annulus well developed, deciduous. Peristome diplolepidous; exostome teeth 16; endostome segments 16, slightly shorter than the teeth; cilia 1 or 2, nodose, from rudimentary to as long as the segments. Spores spherical, smooth.

Morphological characters, such as the cylindrical capsules, conical and non-rostrate opercula, a well-differentiated annulus, narrowly foliose pseudoparaphyllia and axillary papillose rhizoids indicated that *Isopterygium limatum* should become the type species of the newly described *Austrohondaella* (Iwatsuki *et al.*, 2009).

The monotypic *Austrohondaella* shares some significant attributes with the East Asian *Hondaella* Dixon & Sakura, e.g. erect capsules, similar leaf shape, entire leaf apices and hypnaceous peristomes. However, the pseudoparaphyllia of *Hondaella* are considerably larger and broader, the annulus is not differentiated, and leaves are basally truncate.

Reference

Iwatsuki, Z., Ramsay, H.P. & Fife, A.J. (2009), A new genus *Austrohondaella* (Bryopsida, Hypnaceae) from Australasia, *Telopea* 12: 361–369.

Austrohondaella limata (Hook.f. & Wilson) Z.Iwats., H.P.Ramsay & Fife, *Telopea* 12: 362 (2009)

Hypnum limatum Hook.f. & Wilson, *Fl. Antarct.* 2 (Suppl.): 545 (1847); *Isopterygium limatum* (Hook.f. & Wilson) Broth., in H.G.A.Engler & K.A.E.Prantl., *Nat. Pflanzenfam.* I, 3: 1080 (1908). T: Campbell's Island [Campbell Island], *J.D.Hooker*; iso: NY.

Hypnum terrae-novae Brid. var. *australe* Hook.f. & Wilson, *Fl. Antarct.* 1: 142 (1845); *Ectropothecium australe* (Hook.f. & Wilson) A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1877–78: 260 (1880), *nom. illeg.* incl. spec. prior.

Leskea amblyocarpa Hampe, *Linnaea* 30: 638 (1860); *Isopterygium amblyocarpum* (Hampe) Broth., *Nat. Pflanzenfam.* 1(3): 1080 (1908). T: Apollo Bay, Vic., *F.Mueller* 50; holo: BM.

Isopterygium acuminatum Bosw., *J. Bot.* 30: 99 (1892). T: Glen Rae, Tas., 1891, *W.A.Weymouth* 555; holo: HO; iso: NY.

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Illustrations: D.Meagher & B.Fuhrer, *A Field Guide to the Mosses and Allied Plants of Southern Australia* 65 (2003); R.D.Seppelt, *The Moss Flora of Macquarie Island* 185, fig. 74 (2004), both as *Isopterygium limatum*; Z.Iwatsuki, H.P.Ramsay & A.J.Fife, *op. cit.* 364–367, figs 1–4.

Plants yellow to golden green, glossy, forming dense mats. Stems 10–20 mm long, irregularly branched; round to \pm triangular in cross-section, 0.1–0.2 mm wide; branches usually to 5 mm long. Rhizoids restricted to lower stems near the base of branches. Leaves 1.0–1.5 (–1.8) mm long, 0.25–0.75 mm wide at the base, slightly concave; upper part tapering evenly, narrowing to acuminate to piliferous apices; margin entire. Median laminal cells 60–120 \times 5–8 μ m, moderately thick-walled, non-porose; basal cells shorter and broader, becoming porose.

Perichaetial leaves to 1.7 mm long and 0.38 mm wide. Calyptra c. 3 mm long. Seta 10–15 mm long, reddish brown. Capsules with the urn c. 2 mm long; exothecial cells rectangular, 25–50 \times c. 20 μ m, moderately thin-walled. Peristome with the outer teeth c. 1 mm long; endostome segments a little shorter than the outer teeth. Spores 10–18 μ m diam. Chromosome number not known.

Known from alpine N.S.W., Vic. and Tas. Forms scattered mats on dolerite karst, also basalt, on moist exposed rock faces and in crevices, occasionally terrestrial or epiphytic on semi-shaded tree trunks and fallen logs. Also in New Zealand, Macquarie Island, the Auckland Islands and Campbell Island.

N.S.W.: Yarrangobilly Caves, *W.W.Watts* 8822, 8823, 8807 (NSW). Vic.: Sabine Falls Track, Angahook-Lorne S.F., 19 km NE of Apollo Bay, *H.Streimann* 58986 (CANB, NICH); Mount Cole S.F., 27 km E of Ararat, *H.Streimann* 54841 (CANB). Tas.: Williamsford–Montezuma Falls track, *H Streimann* 59570A (CANB, HO, NICH); Pipelma Track, Mt Wellington, *AV Ratkovsky* H292 (CANB, HO).