

HOOKERIACEAE

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Hookeriaceae Schimp., *Coroll. Bryol. Europ.* 101 ('1855') [1856].

Type: *Hookeria* Sm.

Synöicous, autoicous or dioicous. Plants small to medium-sized, often flaccid. Stems soft; primary stems usually branched, prostrate; secondary stems prostrate, suberect or pendent. Paraphyllia absent. Leaves generally complanate, often asymmetrical and bordered; costa absent, single or double, often faint, to three-quarters of the leaf length. Laminal cells smooth, prurulose or papillose, often rather large, generally thin-walled; alar cells lacking.

Inflorescences lateral on stems and branches. Perichaetial leaves differentiated. Calyptra mitrate, smooth, scabrous or pilose; base usually lobed or fringed. Seta elongate, smooth or scabrous. Capsules inclined or horizontal, rarely erect; annulus present or absent; operculum rostrate. Peristome double; exostome teeth narrow, often with broad median furrow, papillose or striolate; endostome segments keeled, as long as the teeth; basal membrane keeled, high; cilia lacking or rudimentary.

The Hookeriaceae occurs mainly in tropical and subtropical regions. Ten genera, 21 species and an additional variety are known from Australia. While most are found only near the eastern and south-eastern coasts and in adjacent ranges, *Achrophyllum* and *Calypstrochaeta* extend as far south as Macquarie Island, with the latter, especially *C. apiculata*, preferring the colder regions.

References

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KEY TO GENERA

- 1 Costa single2
1: Costa absent or double.....5
2 Leaves whorled, variously lanceolate **DALTONIA**
2: Leaves complanate, rounded3

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3	Dry leaves usually blackish; leaf margin strongly dentate; costa forked above.....	ACHROPHYLLUM
3:	Dry leaves green; leaf margin crenulate, weakly dentate or entire; costa not forked above	4
4	Leaf margin crenulate; costa prominent, ending in the apex; marginal leaf cells not differentiated; exclusively tropical.....	BRYOBROTHERA
4:	Leaf margin weakly dentate or entire; costa weak, to mid-leaf or scarcely to the apex; marginal leaf cells usually differentiated; tropical to temperate	DISTICHOPHYLLUM
5	Costa absent, very faint or short (not reaching mid-leaf).....	6
5:	Costa strong, extending beyond mid-leaf.....	8
6	Leaves bordered; laminal cells hexagonal or rhomboidal.....	CALYPTROCHAETA
6:	Leaves not bordered; laminal cells linear	7
7	Rhizoids white; leaves 1-plicate; upper margin entire; apex tapering to a point; temperate to subtropical .	SAULOMA
7:	Rhizoids not white; leaves smooth; upper margin denticulate; apex rounded to acute; tropical	CHAETOMITRIUM
8	Leaves bordered; plants delicate.....	CYCLODICTYON
8:	Leaves lacking a border; plants not delicate	9
9	Cells quadrate to hexagonal, to c. 25 µm long, unipapillose, or the papillae weak or apparently absent	CALLICOSTELLA
9:	Cells rhomboidal-hexagonal, > 30 µm long, lacking papillae, or the cells papillose by projecting cell ends	HOOKERIOPSIS