

Fissidens berteroi (Mont.) Müll.Hal., *Syn. Musc. Frond.* 1: 45 (1848), as *berterii*

Conomitrium berteroi Mont., *Ann. Sci. Nat., Bot.*, sér. 2, 8: 250 (1837), as *berterii*. Type: Guillota, Chile, 1829, *C.Bertero*; iso: BM, NY.

Conomitrium muelleri Hampe, *Linnaea* 28: 214 (1856); *Octodiceras muelleri* (Hampe) A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1874–75: 135 (1876) [Ad. 2: 51]; *Fissidens muelleri* (Hampe) Mitt., *Trans. & Proc. Roy. Soc. Victoria* 19: 91 (1882). Type: banks of River Murray, Vic., *F.Mueller*; holo: BM; iso: MEL.

[*Fissidens fontanus* auct. non (Bach.Pyl.) Steud.: G.A.M.Scott & I.G.Stone, *Mosses of Southern Australia* 655 (1976)]

Illustrations: G.A.M.Scott & I.G.Stone, *The Mosses of Southern Australia*. 91, pl. 10 (1976), as *F. fontanus*; R.A.Pursell, *Mem. New York Bot. Gard.* 45: 655, fig. 45 (1987); J.E.Beever, *New Zealand J. Bot.* 33: 295, fig 3a,b; 296, fig 4a–p; 297, fig 5; 298, fig 6a–f (1995); J.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand: an illustrated key* 18 (2002).

Plants aquatic, periodically emergent; yellowish green to dark green. **Stems** usually richly branched, to 12 cm or more long; in section lacking a central strand. **Leaves** lanceolate to linear-lanceolate, to c. 8.5 mm long and 0.9 mm wide, in many pairs, often \pm distant; **apex** acute; **margins** smooth. **Vaginant laminae** reaching $2/5$ – $1/2$ leaf length, almost closed, **elimbate** or **weakly limbate** in lower $1/3$ of lamina; **dorsal lamina** reaching the insertion or failing above. **Laminal cells** smooth, unistratose, irregularly hexagonal, 13–24 μ m long, 11–15 μ m wide, larger juxtacostally. **Costa bryoides**-type, ending well below the apex.

Autoicous. Perigonia and **perichaetia** gemmiform, axillary. **Sporophytes** 1 or more per perichaetium, small and relatively inconspicuous. **Setae** short, 0.9–1.4 mm long. **Capsules** symmetrical, ovate, 0.5–0.8 mm long; **exothecial cells** thin-walled, collenchymatous. **Operculum** short, conical-rostrate. **Peristome** variable, reduced *bryoides*-type, the forks unequal, spirally thickened and papillose, basal part \pm smooth to finely papillose, papillae often in vertical rows. **Spores** 15–18 μ m diam.

[Images](#)

Occurs in S.A., Qld, N.S.W., Vic. and Lord Howe Is. Usually attached to rocks or tree roots in running water and often forming large floating masses coated with diatoms.

Also in New Zealand and southern South America.

Selected specimens examined: S.A.: Edeowie Gorge, Wilpena Pound, Flinders Ra., *L.Haegi* 2762 (AD). Qld: Carnarvon Gorge Natl Park, *I.G.Stone* 23785 (MEL). N.S.W.: Williams Ck, Ballina, *W.W.Watts* (NSW). Vic.: Loch, South Gippsland, Dec. 1913, *J.R.Murdock* (MEL); Jacksons Ck, Sunbury, 11 Apr. 1985, *P.J.Vollebergh* (MEL).

Australian collections have often been misidentified as *F. fontanus* (Bach.Pyl.) Steud., a predominantly European and North American species that differs in having unequal vaginant laminae and being completely elimbate. *Fissidens berteroi* has been recorded in error from Tasmania in Catcheside (1980) and Streimann & Klazenga (2002), there being no authentic Tasmanian collections in any Australian herbarium. Australian collections are mostly incorrectly spelled “*F. berteri*”.

[Bibliography](#)