

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*. T: 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). T: 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, *op. cit.* 655 (1976)]

Illustrations: G.A.M.Scott & I.G.Stone, *op. cit.* 91, pl. 10, as *F. fontanus*; R.A.Pursell, *op. cit.* 655, fig. 45; J.Beever, B.Malcolm & N.Malcolm, *The Moss Genus Fissidens in New Zealand[:] an illustrated key* 18 (2002).

Autoicous. Stems branching, to 12 cm long. Leaves linear, to c. 8.5 mm long and 0.9 mm wide, acute. Costa ending well below the apex. Vaginant laminae 2/5–1/2 the leaf length, almost closed, elimbate or weakly limbate proximally; dorsal lamina reaching the insertion or failing above. Laminal cells irregularly hexagonal, 13–24 × 11–15 µm, larger juxtacostally.

Setae 0.9–1.4 mm long. Capsules symmetrical, ovate, 0.5–0.8 mm long; operculum short, conical-rostrate. Peristome variable, the forks unequal, spirally thickened and papillose, the lower forked part ±smooth to finely papillose; papillae often in vertical rows.

Occurs in S.A., Qld, N.S.W., Vic. and Tas.; usually in running water attached to rocks or tree roots and often forming large floating masses coated with diatoms. Also in Lord Howe Island, New Zealand and southern South America.

S.A.: Edeowie Gorge, Wilpena Pound, Flinders Ra., *L.Haegi* 2762 (AD). Qld: Carnarvon Gorge Natl Park, *J.G.Stone* 23785 (MEL). N.S.W.: Williams Creek, Ballina, *W.W.Watts* (NSW).

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.