

**Fissidens wattsii** Broth., *Proc. Linn. Soc. New South Wales* 40: 368 (1915)

Type: Northern Hill, Lord Howe Is., July 1911, *W.W.Watts*; lecto: *W.W.Watts* 224 (H-BR); isolecto: *W.W.Watts* 224 (NSW, ?MEL); syn: Dinner Run, Lord Howe Is., *W.W.Watts* 337; "Run", Scaly Bark [Lord Howe Is.] *W.W.Watts* 515, 518; Intermediate Hill [Lord Howe Is.], *W.W.Watts* 136; all in H-BR and NSW, *vide* I.G.Stone, *J. Bryol.* 18: 162, 163 (1994).

Illustrations: H.Streimann (2002), *The Mosses of Norfolk Island* 93, fig. 42 (2002).

**Plants** small, gregarious, whitish green, opaque. **Stems** unbranched, scarcely reaching 3 mm long, shoots c. 1.7 mm wide with leaves, with brownish rhizoids at the base; in section with a narrow central strand. **Lower leaves** minute,  $\pm$ distant, those above overlapping, much larger, in 5–7 pairs, erecto-patent moist or dry, straight, linear, lanceolate-acuminate, 2.5–4.0 mm long, 0.8–1.3 mm wide; **apex** acute; **laminae** unistratose; **margins** crenulate, **elimbate**; **vaginant laminae** reaching 1/2 leaf length, half open; **dorsal lamina** tapering to the base, ending at the insertion or shortly decurrent; **cells of apical and dorsal laminae** rounded-hexagonal, 7–10  $\mu$ m wide, pale; **costa** of *taxifolius*-type, subpercurrent to percurrent, reaching to or ending just below the apex.

**Rhizautoicous**. Male plants very short, consisting of 2 pairs of stiff leaves; **perigonia** terminal. **Setae** smooth or pustulose, 1.5–2.0 mm long. **Capsules** cylindrical, immersed to slightly exserted; urn c. 0.7 mm long; **exothecial cells** short-rectangular, not thickened at the corners. **Operculum** rostrate, c. 0.5 mm long.

[Images](#)

Known only from Lord Howe Island and Norfolk Island in the south-western Pacific Ocean.

*Selected specimens examined*: Lord Howe Island: Boat Harbour, Nov. 2009, *D.A.Meagher* LH-286 (MELU); *sine loc.*, 1911, *W.S.Watts s.n.* (NSW 729652).

The delicate species is characterised by its small size and by its strict, linear, lanceolate-acuminate leaves. There is some resemblance to *F. hollianus*, particularly in the sporophyte. Plants of *F. hollianus* appear somewhat comb-like (pectinate), with numerous pairs of  $\pm$ uniform, lanceolate leaves about 4 times as long as wide, and often with numerous axillary perigonia. In *F. wattsii*, the minute, rhizautoicous flabellate plants have only 4 or 5 pairs of leaves, with the upper leaves linear-lanceolate, much larger, up to 8 times as long as wide and held stiffly erect.

No authentic specimens have been discovered on the mainland of Australia. Stone (1994a) noted "A specimen in MEL incorrectly labelled TYPE: *Fissidens wattsii* Broth., on wet sandstone, back of 'Braeside', Wollahra, Sydney, N.S.W. ex Herb. *W.W.Watts* coll. *W.W.Watts*, March 1896, sub. No. MEL 59523 is *F. perangustus* Broth.". Two other packets labelled as "*Fissidens wattsii* Broth., n.sp." [Woollahra, 29 Mar. 1896, *W.W.Watts* 190 (NSW 756524, 756453)] are also referable to *F. perangustus*. In both, the limbidia terminate before the leaf apex, and the vaginant laminae are fully open, joining on or very close to the costa. While the length:width ratio of the leaves approaches that of *F. perangustus*, the stem leaves of the *Watts* 190 specimens do not overlap, the leaf separation being a feature typical of plants growing in wet habitats

[Bibliography](#)