

SCLERPODIUM

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Scleropodium Bruch & Schimp., in P.Bruch, W.P.Schimper & W.T.Gümbel, *Bryol. Europ.* 6: 27 (1853); from the Greek *scleros* (hard, rough) and *podium* (a foot), in reference to the rough setae.

Type: *S. illecebrum* Schimp. [= *S. touretii* (Brid.) L.F.Koch]

Plants medium-sized, irregularly branched; stems and branches strongly curved when dry. Stem leaves erect, not plicate; costa single, occasionally branched, ending 60–80% up the leaf, smooth or often ending in a spine (especially in short and broad leaves), occasionally with upper abaxial costa cells distally prorate; distal margin denticulate (at least near the apex), recurved or slightly reflexed near the insertion. Median laminal cells linear, with square to moderately tapering ends, thin-walled or slightly incrassate, eporose, smooth; alar groups well differentiated, shortly and narrowly decurrent. Sporogone not known in the Australian species.

A genus of c. ten species, all of which, apart a single Australian occurrence, are found in Eurasia and North America.

References

Carter, B.E. (2010), The taxonomic status of the Tasmanian endemic moss, *Scleropodium australe* (Brachytheciaceae), *Bryologist* 113: 775–780.

Hedenäs, L. (1996), Taxonomic and nomenclatural notes on Australian Brachytheciaceae (Musci), *Nova Hedwigia* 62: 451–465.

Hedenäs, L. (2002), An overview of the family Brachytheciaceae (Bryophyta) in Australia, *J. Hattori Bot. Lab.* 92: 51–90.

***Scleropodium touretii* (Brid.) L.F.Koch, *Rev. Bryol. Lichénol.* 18: 177 (1949)**

Hypnum touretii Brid., *Muscol. Recent. Suppl.* 2: 185 (1812). T: Europe.

Scleropodium australe Hedenäs, *Nova Hedwigia* 62: 457 (1996). T: “road and creek behind Cascade Brewery”, Hobart, Tas., A.V.Ratkovsky H372; holo: CANB; iso: AD, CANB, HO, L.

Illustrations: E.Nyholm, *Illustrated Moss Flora of Fennoscandia* 2(5): 559 (1965); A.J.E.Smith, *The Moss Flora of Britain and Ireland* 600 (1978); L.Hedenäs, *op. cit.* 454 (1996); L.Hedenäs, *op. cit.* 72, fig. 7A–C (2002); W.M.Malcolm, N.Malcolm, J.Shevock & D.Norris, *California Mosses* 275 (2009).

Dioicous (only female plants seen from Australia). Medium-sized, irregularly branched; stems and branches strongly curved when dry, green or yellow-green. Axillary hairs 1 or 2 per axil, with 1 or 2 upper cells. Stem leaves erect, subimbricate or imbricate, with the apices slightly recurved when dry, concave or strongly so, triangular-ovate, broadly ovate or ovate-cordate, above gradually or abruptly narrowed to an acuminate or obtuse subapiculate apex; costa 80.0–111.5 µm wide at the base. Median laminal cells 35.5–94.5 × 4.0–6.5 µm; alar cells short- to long-rectangular, occasionally short-linear, slightly inflated, thin-walled or slightly incrassate, eporose, in a rather large transversely triangular group, well delimited, extending c. 33–67% of the distance from the leaf margin to leaf centre at insertion.

Very rare in Tas.; a widespread Northern Hemisphere species.

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Molecular data have revealed that the Australian material of *Scleropodium*, which occurs at a ruderal site, belongs to the widespread Northern Hemisphere *S. touretii*. The Tasmanian population is most similar to European specimens and therefore most likely represents an introduction from Europe (Carter, 2010).

Scleropodium touretii is superficially similar to *Pseudoscleropodium purum*, with which it was previously confused. However, when dry it is immediately recognisable by its strongly curved branches and stems. The axillary hairs have 1 or 2 upper cells in *S. touretii*, (3–) 4–9 in *P. purum*. *Scleropodium touretii* has stem leaves that are mainly ovate to ovate-cordate, with an obtuse or acuminate apex, whereas *P. purum* has broadly ovate to broadly obovate stem leaves with a broadly obtuse or rounded apex; both species have apiculate or subapiculate apices. The costa occasionally ends in a spine abaxially in the former, not so in the latter. Finally, the alar groups are larger in *S. touretii* than in *P. purum*, and they extend from the leaf margin much closer to the centre of the leaf insertion (33–67%; 20–25% in *P. purum*).

The haploid chromosome number 11 is known for this species from Europe (R.Fritsch, *Bryophytorum Biblioth.* 40: 1–352, 1991).