



# BRYOPHYTES of Australia

## *Rosulabryum* J.R.Spence

Author: John R. Spence & Helen P. Ramsay

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## ***Rosulabryum* J.R.Spence**

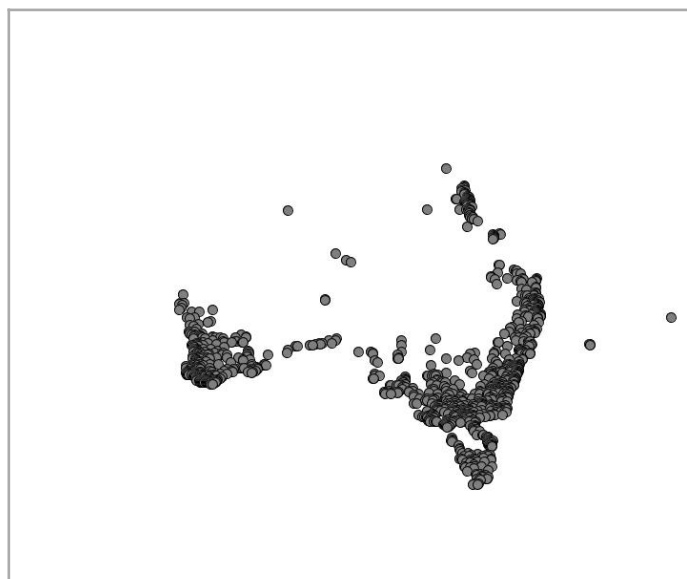
- Spence, J.R. (1996), *The Bryologist* 99 : 222

John R. Spence & Helen P. Ramsay

Dioicous or rarely synoicous or polyoicous. Plants small to large; stems 0.5–10 cm tall, branched by subfloral innovations, in open turfs. Stems mostly strongly rosulate, often densely radiculose, with coloured papillose rhizoids. Leaves ovate, obovate to spatulate, variously contorted to spirally twisted around the stem when dry; upper margin denticulate to serrate by projecting cell ends or, occasionally, with distinct cellular teeth; costa strong, usually excurrent, in cross-section with a well-developed band of stereids; guide cells in

1 (or 2) layers; upper and mid-laminal cells short-rhomboidal (3–5: 1), sometimes porose, progressively rectangular and somewhat longer below, usually with a border of thickened elongate cells. Gemmae as axillary uniseriate filaments in some species; rhizoidal tubers usually present.

Inner perichaetial and perigonal leaves somewhat differentiated, generally smaller than vegetative leaves. Setae solitary or sometimes polysetose and clustered, slender, elongate, smooth. Capsules clavate to pyriform, often somewhat arcuate, nutant to inclined; operculum conical. Peristome rather uniform, double; exostome teeth 16, irregularly striate on outer surface; endostome segments 16, the same height as the exostome, broadly perforated; basal membrane high, 33–67% the length of the exostome, papillose; cilia 2 or 3, appendiculate. Spores 8–25 µm diameter.



**Etymology:** From the Latin *rosula* (a rosette) and the Greek *bryon* (a moss), in reference to the leaves being clustered in rosettes.

**Chromosome Numbers:**  $n = 10, 11, 20$ , polyploid series in synoicous species, *fide* Fritsch (1991), as various *Bryum* spp.; Ramsay & Spence (1996).

**Number Of Species And Distribution:** The genus includes c. 75–100 species, of which 14 (five endemic) occur in Australia. One species included in the key, *R. perlimbatum* Cardot, has not yet been found in Australia, although it is known from the South Island of New Zealand and Subantarctic islands. The genus exhibits a primary radiation within the tropics and subtropics, and it is especially diverse in Africa.

**Nomenclature And Typification:** *Rosulabryum* J.R.Spence, *Bryologist* 99: 222 (1996). Type: *R. albolimbatum* (Hampe) J.R.Spence.

**Notes:** *Rosulabryum* comprises the rosulate species of *Bryum* s. lat. with unreduced peristomes, generally obovate leaves with serrate margins, rhizoidal tubers and, occasionally, filiform gemmae in the leaf axils. *Rosulabryum* is related to *Brachymenium*, and while *Rhodobryum* is superficially similar, recent molecular studies suggest it is not closely related to *Rosulabryum* (Pedersen et al., 2003).

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## Images



**Fig. 1:** '*Rosulabryum billardieri*' by Lepp, H. (© Lepp, H.)



## **Acknowledgements**

### Contributors

Peri Bolton (March 2019)

### Editor(s)

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### Author(s)

