

STONEOBRYUM

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Stoneobryum D.H.Norris & H.Rob., *Bryologist* 84: 96 (1981); named in honour of Dr Ilma Stone (1913–2001), noted Australian bryologist.

Type: *S. bunyaense* D.H.Norris & H.Rob.

Dioicous. Male plants smaller, scattered through female clones, often in leaf axils, usually unbranched. Plants erect, tufted, in small hemispherical cushions, pale green to bleached whitish green. Stems sparingly branched near base. Rhizoids repeatedly branched with \pm equal dichotomies, smooth, deep red. Leaves oblong to slightly lanceolate-lingulate, somewhat crisped above the sheathing base, with axillary hairs at costal insertion; apex abruptly contracted to broadly acute and spirally inrolled; margin recurved throughout limb, plane to recurved near apex, entire at base; a single fold on each side of the leaf; costa ending below apex, sunken in a channel; upper and median laminal cells isodiametric to oblong-elliptical, smooth to slightly mammillose; basal laminal cells rectangular, thin-walled, not differentiated at margin, hyaline.

Perichaetial leaves closely enveloping capsules, rigidly ascending and strongly concave, lingulate, costate, not plicate, with plane margins and an obtuse apex; laminal cells large, rhomboidal, smooth, hyaline. Calyptra covering operculum and 25–33% of the urn, mitrate, slightly plicate, pilose, not lobed or laciniate, with smooth hairs. Capsules on main stem, cylindrical, completely immersed, on very short setae, abruptly contracted to a short neck, strongly 8-ribbed; stomata immersed, restricted to urn. Peristome double; exostome teeth in 8 pairs, recurved; endostome segments 8, upright, filiform; cilia solitary, smooth; operculum short-apiculate. Spores anisomorphic. Chromosome number not known.

A genus of two species, one Australian, the other from South Africa. The difference in size of the sexes might be related to the anisospory. The differentiated, colourless perichaetium that encloses the capsule almost replaces the reduced, hairy calyptra. These characters, together with immersed stomata, separate this genus from *Orthotrichum*.

Reference

Norris, D.H. & Robinson, H. (1981), *Stoneobryum*, a new genus of Orthotrichaceae from South Africa and southern Queensland, *Bryologist* 84: 95–99.

Stoneobryum bunyaense D.H.Norris & H.Rob., *Bryologist* 84: 96 (1981)

T: Bunya Mountains Natl Park, Qld, 8 Mar. 1974, *D.H.Norris 35310*; holo: BRI; iso: HSC, US.

Illustrations: D.H.Norris & H.Robinson, *op. cit.* 97, figs 1–10.

Plants in small hemispherical cushions to 20 mm wide, 3–5 mm tall. Leaves 1.8–3.0 mm long, 0.3–0.4 mm wide; apex broadly acute; costa ending well below apex; sheathing leaf base slightly but abruptly wider than lamina; upper and median laminal cells isodiametric to oblong-elliptical, 8–11 μ m wide, smooth to slightly mammillose; cells of sheathing base rectangular, 12–14 μ m long (3–6: 1), thin-walled.

Larger spores c 27 μ m diam.; smaller spores c. 18 μ m diam.

Known only from the type locality in south-eastern Qld where it grows on the high branches of *Eucalyptus* sp.

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