

Bryobartramiaceae

(R.E. Magill)

The family is monotypic, found only in Australia and South Africa. The family shows similarities to both the Pottiaceae and Encalyptaceae but is maintained as a separate family based on its persistent epigonium. The family is placed in the Pottiales.

Bryobartramia (Fig. XX)

The genus has a single species (*B. novae-valesiae* (Broth.) I.G.Stone & G.A.M.Scott) found in southern Australia and the southwestern Cape of South Africa.

Plants small, scattered or in small groups, green to yellow-green. **Stems** erect to 3 mm tall, occasionally branched above; in cross-section without a central strand. **Leaves** erect-spreading, ligulate, lingulate or lanceolate, 0.3--0.5 mm long; apex broadly acute to obtuse; margins plane, entire. **Costa** subpercurrent or ending below apex; in section guide cells 2, ventral cells large, in single row, dorsal stereid or substereid band 2--3 cells thick; upper leaf cells quadrate to subhexagonal, weakly thickened, with 2--4 C-shaped papillae; basal cells rectangular, thin-walled, smooth; alar cells not differentiated. **Paroicus**. **Perichaetia** terminal, leaves linear-lanceolate, 1.8--2.0 mm long. **Seta** 0.2--0.4 mm long. **Capsules** cleistocarpic, immersed, globose to oval, apiculate, 0.8 mm long; exothecial cells isodiametric thin-walled, stomata phaneroporic, scattered over urn; **epigonia** persistent, oval-rostrate, 1.7--2.2 mm long, cells below beak prorate. **Spores** subround, 35--40 μm , warty, yellow-brown.

HABITAT. On clay or sandy soil in open, arid shrubland.

DISCUSSION. The genus might be confused with *Goniomitrium*, but the narrow papillose leaves and persistent epigonium, will help separate *Bryobartramia*. The epigonium of most mosses splits into two parts as the sporophyte develops, however in *Bryobartramia*, the epigonium continues to enlarge to accommodate the entire sporophyte. Spores are only released when both the epigonium and capsule walls break down. The epigonium frequently outlasts the capsule.

LITERATURE. **Magill, R. E., 1981.** Flora of Southern Africa. Part 1 Mosses. Fascicle 1: 269--270. **Stone, E. 1977.** Australian Journal Botany 25: 141.