

## BRYOXIPHIACEAE

A monotypic family, placed in its own order, the Bryoxiphiales.

### **Bryoxiphium** Mitt.

One species in Africa, *Bryoxiphium norvegicum* (Brid.) Mitt., which was collected in Mauritius in 1980, but only published recently (Kimura & Seto 2003). The genus is widespread, but locally infrequent, in the Northern Hemisphere, but is known also from Japan, Korea and Taiwan.

**Plants** medium sized, forming loose tufts, glossy light green to golden-brown. **Stems** often perpendicular to substrate, stiffly erect to subpendent, to 2 cm long, simple or few branched, the bulb-like base with numerous brown rhizoids. **Leaves** gradually and progressively larger and longer distally, ca. 2-3 mm long, strongly 2-ranked (distichous), crowded, oblong-lanceolate, strongly conduplicate-keeled, apex of lower leaves bluntly rounded, distally apiculate; margins plane, entire; costa single, subpercurrent to percurrent; lamina unistratose; laminal cells smooth, firm-walled, upper cells linear; median cells oblong or rhomboidal to subquadrate; basal cells oblong-short rectangular to subquadrate; marginal cells elongate and forming quite a wide border. **Perichaetial** leaves terminal; leaves larger, to 8 mm long or longer, costa long excurrent. **Perigonia** and **sporophytes** not seen. [Elsewhere in its range, the following apply: **Dioicous**. **Seta** short, erect or slightly curved, smooth. **Capsule** immersed, urn subglobose. **Operculum** short rostrate, somewhat oblique, remaining attached to columella for short period. **Peristome** absent. **Calyptra** cucullate, smooth and naked. **Spores** spherical.]

**HABITAT.** On vertical cliffs, often in moist, shaded sites; altitude not given for the African collection, but elsewhere it is montane, at elevations from 1000-4100 m.

**DISCUSSION.** *Bryoxiphium* is characterized by the growth habit, with stems perpendicular or subpendent from a vertical or inclined substrate, leaves 2-ranked and strongly keeled, and perichaetial leaves distinctly elongate with the costa long excurrent, and distal portion of stems with leaves exhibiting lamellae of several rows of cells on the back of the costa near the leaf tips. The African collection overlaps the subspecies *norvegicum* (North America, Greenland and Iceland) and *japonicum* (Far East Russia, Japan, Korea) and Kimura & Seto (2003) sensibly suggest that infraspecific distinctions had little value..

**LITERATURE.** **Kimura, M. & Seto, K. 2003.** *Bryoxiphium norvegicum* (Bryopsida: Bryoxiphiaceae), new ly found in Mauritius. Bulletin of the Osaka Museum of Natural History 57: 33-37. **Löve, A. & D. Löve. 1953.** Studies in *Bryoxiphium*. Bryologist 52: 73-94, 183-203.