

Bryoxiphium madeirense A. Löve & D. Löve

Status: **Endangered (EN)** B1,2c

Class: Bryopsida

Order: Bryales

Family: Bryoxiphiaceae

Description and Biology: Slender, ± erect, glossy, light yellowish-green acrocarp about 1-5 cm high; leaves arranged in two ranks, similar to those of *Bryoxiphium norvegicum* but without a bulblike base and more yellowish-green; nerve slightly excurrent and the leaf apices smooth to slightly serrulate. The capsule is more slender and less pyriform than that of *B. norvegicum* and only about one-third as broad as long.

Distribution and Habitat: Madeira (Portugal). The most recent finding is made in Levada do Lombo do Mouro para o Pináculo, 1992, C. Sérgio & S. Fontinha, which is close to the classic locality. The habitat is moist and dripping volcanic rocks or very shaded ravines in *Laurus* forest, in altitude 600-1500m. In total known from less than 12 localities (within 8 squares km) after 1950 (Sergio, et al. 1992). Sporophytes are very rare and observed from only one specimen and not seen since 1952.

History and Outlook: In the actual locality the species occur within less area than 2 m² but it has evidently difficulties to recolonise the new open areas because some parts of the plant colony are falling down. Increase of rubbish and water nitrification by the tourism action as well as destruction of habitats as opening and cleaning pathway are the current threats. Today, Madeira *Laurus* forest is under regional, national and international protection. It is considered a Place of the Natura 2000 Network and in 1999 was declared a World Natural Heritage of UNESCO.

References: ECCB. 1995. *Red Data Book of European Bryophytes*. European Committee for Conservation of Bryophytes (ECCB), Trondheim.

Löve, A. and Löve, D. 1953. Studies on *Bryoxiphium*. *Bryologist* 56: 183–199.

Sergio, C., Schumacker, R., Fontinha, S. & Sim-Sim, M. 1992. Evaluation of the status of the bryophyte flora of Madeira with reference to endemic and threatened European species. *Biological Conservation* 59: 223--231.

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