

TAXONOMIC INVESTIGATIONS OF EUROPEAN, EAST AFRICAN AND ANTARCTIC MOSSES

by

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The aim of this project is to solve critical taxonomic problems in many genera and families of mosses in the Southern Hemisphere which will be used for completing the relevant handbooks of mosses of Antarctica, the Kilimanjaro Mountains in East Africa, and Central Europe. Since 1986 taxonomic revisions of selected genera of mosses have been carried out, among others on *Sciaromium* (Mitt.) Mitt. [3-6], *Limbella* (C. Muell.) Broth. [7], or *Racomitrium* (Hedw.) Brid. [15] as well as the development of rich collections of East African mosses [12-14, 17].

Critical examination of almost all historical collections, studies of our own collections from the South Shetland Islands as well as other contemporary materials collected in Antarctica contributed 32 species new to this continent and one species new to science (Figs. 1-21). They further resulted in reduction to synonymy all taxa of mosses described from this area [1, 2, 8-11, 16]. The moss flora of Antarctica consists presently of 90 species. The critical manual of Antarctic mosses is to be completed in 1990. It will include two parts. The first part will comprise detailed descriptions, illustrations, taxonomic discussions and distribution maps for all species now known to occur in the area covered by this study. The second part will be an outline of phytogeography of the Antarctic moss flora including a discussion of its origin and distribution patterns of species.

The Antarctic studies are strictly associated with taxonomic and phytogeographical study of sub-Antarctic mosses. The critical check-list of the mosses from this area is almost ready for printing. Taxonomic research is now focused mainly on the families *Leskeaceae*, *Vititiaceae* and *Amblystegiaceae*. Treatment of these groups is being completed for the project of "The South Georgian moss flora" established by the British Antarctic Survey.

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