

Sborník příspěvků z konference pořádané Katedrou biologie a ekologie PřF OU:
„Změny životního prostředí a jejich bioindikace“, 25.–26.10.2001, Bartošovice.

Threatened bryophytes of the High Sudetes (Krkonoše, Hrubý Jeseník)

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The High Sudetes represent an important phytogeographical link between the floras of the Alps and Scandinavia, being a refuge for a wealth of arctic-alpine species. Though they might belong to the bryofloristically best-explored regions of the world, the most floristic data date back to the last century and have not yet been comprehensively and critically compiled.

The authors are carrying out an intensive bryological survey with the aims of a) the critical evaluation of the historical bryofloristic data of the summit areas of the Krkonoše and Hrubý Jeseník Mts., b) the systematic bryofloristic inventory at the selected localities – biodiversity centres of the High Sudetes and c) the synthetic evaluation of both recent and historical data. Emphasis will be given on acquiring the quantitative demographic data on the populations of most endangered bryophyte taxa. This should result in the assessment of the floristic changes, realistic foundations for the regional Red Lists and practical management instructions, as well as the monitoring the most threatened populations. The following table gives several examples of taxa important from the conservation viewpoint.

	Krkonoše Mts.	Hrubý Jeseník Mts.
species that seem to have vanished from the respective floras	<i>Anastrophyllum saxicola</i> , <i>Barbilophozia atlantica</i> , <i>Jamesoniella undulifolia</i> , <i>Mannia triandra</i> , <i>Marsupella adusta</i> , <i>M. brevissima</i> , <i>Arctoa fulvella</i> , <i>Dicranum elongatum</i> , <i>D. spadiceum</i> , <i>Grimmia unicolor</i> , <i>Hygrohypnum smithii</i> , <i>Kiaeria falcata</i> , <i>Meesia uliginosa</i> , <i>Polytrichastrum sexangulare</i> , <i>Stegonia latifolia</i>	<i>Hypnum revolutum</i> , <i>Meesia longiseta</i> , <i>Oncophorus wahlenbergii</i> , <i>Orthotrichum alpestre</i> , <i>Tayloria splachnoides</i> , <i>Ulota drummondii</i>
species not confirmed at present but with a big chance of being re-found	<i>Moerckia hibernica</i> , <i>Hypnum callichroum</i> , <i>Isopterygiopsis pulchella</i>	<i>Gymnomitrium corallioides</i> , <i>Jungermannia caespiticia</i> , <i>Grimmia elatior</i> , <i>Hypnum callichroum</i>
rare species, even historically; populations small and threatened	<i>Gymnomitrium corallioides</i> , <i>Marsupella sprucei</i> , <i>Moerckia blyttii</i> , <i>Tetralophozia setiformis</i> , <i>Andreaea frigida</i> , <i>Saelania glaucescens</i> , <i>Tortula euryphylla</i>	<i>Dicranum spadiceum</i> , <i>Grimmia caespiticia</i> , <i>Hookeria lucens</i> , <i>Myurella julacea</i> , <i>Pohlia longicollis</i> , <i>Saelania glaucescens</i>
species that strongly retreated	<i>Marsupella funckii</i> , <i>Dicranum majus</i> , <i>Hygrohypnum duriusculum</i>	<i>Dicranella subulata</i> , <i>Ptilium crista castrensis</i>

Major threats at present are the intensive tourism and forestry but the loss of rare species is also caused by atmospheric pollution, the spontaneous succession changes and, imperatively, the over-collecting by the bryologists themselves.

The project was supported by grants No. 123100004 (Ministry of Education of the Czech Republic), No. 206/01/0411 (Grant Agency of the Czech Republic) and No. AV0Z6005908 (Institute of Botany, Czech Academy of Sciences).