

Rodwell, J.S. (ed.): **British Plant Communities. Vol.3. Grasslands and Montane Communities.** - Cambridge University Press, Cambridge 1992. 540 pp. £ 95.00.

A fairly ambitious project called National Vegetation Classification (NVC) presents in its third volume a survey of dominant calcicolous and calcifugous grasslands in Great Britain; prevailing montane vegetation types, such as the sedge-heath, dwarf-herb, tall-herb and snow-bed communities, are also included.

Chapter "General Introduction" contains instructive reiteration of synecological and phytosociological studies undertaken in the British Isles during the last decades. The reviewer would like to add that, in the past, prolific autecological and plant population research in Great Britain created a false picture of totally human-disturbed vegetation resisting any reasonable plant sociological approach, comparable with the Continental investigations. Already in 1952, J. Braun-Blanquet and R. Tüxen, the two protagonists of Continental phytosociology, showed that swards and other plant communities of the British Isles could be treated in a similar way as those encountered in France, Germany and elsewhere in temperate Europe. Later on, the methodology of Zürich-Montpellier School (ZMS) has been tested and selectively adopted in the research and description of Scottish mountain vegetation, e.g., by M.E.D. Poore, D.N. McVean, D.A. Ratcliffe, *etc.*

The ecologists participating in the NVC project acknowledge certain advantage of field sampling and data collection developed by ZMS, but they endeavour more objective "numerical" procedures in the data analysis and sorting of vegetation types. Their 3rd volume covering grasslands and montane communities derives from a sampling programme which collected about 6500 vegetation relevés from lowlands and highlands in England, Wales, Scotland and on neighbouring islands. Besides the species lists, the sample cards contain relevant data with regard to site description, geology and soil profile. The success of this volume, no doubt, is in its synthetical evaluation of the relevés, which resulted in a clear picture of the British swards and mountain vegetation.

Within the mesotrophic grasslands, 13 communities have been distinguished. Each of them is defined by its constant species, rare species, physiognomy, habitat, zonation, succession, distribution and affinities. These communities are compared with the grassland types described in earlier literature, including the monographs from Continental Europe; therefore, all phytosociological names used in the book are of much general utility in comparative grassland ecology. In calcicolous grasslands, 14 community types have been identified; not only the south-east regions of England, but also the Scottish highlands are taken into account. Thus, even a Continental ecologist gets a clear picture of the diversity in "chalk grasslands" frequently described in earlier literature. Calcifugous grasslands and montane communities are divided into 21 types whose detailed treatment results in a much desired arrangement of vegetation types described in the past. Mountain ecologists will particularly be grateful for the new classification of dwarf-herb, tall-herb and snow-bed communities, which can be used in a world-wide synthesis.

Floristic composition of the units described in the book suggests that, within the context of British grasslands, ecological and cenological features of vascular plant species differ from those encountered in Continental communities. This explains a difficulty in application of higher phytosociological syntaxa (alliances, orders and classes) commonly applied by Continental scholars. However, the affinities of various stands ("syntaxa") are clearly indicated by synonyms and references are quoted throughout the text. The index and bibliography at the end of the book will assist in the excerpts of this useful survey.

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