Progress in national project, "Plant communities of Slovakia" after four years

MILAN VALACHOVIČ

Institute of Botany, Slovak Academy of Sciences, SK-84223 Bratislava, Slovakia, E-mail: Mival@bou.savba.sk

ABSTRACT. – In 1991, a project was lanched to prepare the survey of vegetation units of Slovakia. It was designed from the first moment as the national project, which became later an integral part of the European Vegetation Survey. Now, four years later, evaluation of the first results and presentation of future aims are presented.

KEY WORDS – Slovakia, phytosociology, pioneer communities, vegetation survey.

The project, based on revision of all phytosociological data from Slovakia, originated of the Department of Geobotany in Bratislava. After completition of the Geobotanical Map of Slovakia (Michalko *et al.*, 1987) and publication of several large syntaxonomical syntheses it appeared necessary to launch a new long-term project. Originally the aim was to prepare and publish all vegetation classes with three volumes within six years.

During the first stage (1991-1993) a design of the major steps, including the methods, was prepared in accordance with the similar national projects in Austria, the Netherlands, and United Kingdom. The classification used was based on the floristic composition of stands and on tabular differentiation of plant communities following methods of the Zürich-Montpellier School.

Our primary interest was focused on the non-forest vegetation, of which 17 classes were drafted. The first part of this synthesis is now in print and it will appear in the volume of Plant Communities of Slovakia 1. Pioneer vegetation. This volume will comprise 7 vegetation classes, 18 orders, 26 alliances, and more than 80 associations of terrestrial and water pioneer vegetation. The systematic survey commences with the group of rock fissure, kalk, scree and sand dune communities of the *Asplenietea trichomanis, Thlaspietea rotundifolii, Sedo-Scleranthetea, Koelerio-Corynephoretea, Festucetea vaginatae*. A group of acquatic communities of the *Lemnetea* and *Potametea* are also included. The book will contains 185 pages of text, synoptic tables, and phytosociological tables of new described associations, and several colour photograps. The text is introduced by a brief explanation

of basic concepts and the methods used. An exhaustive list of references and an index of syntaxa are also added.

The volume has a standardised structure, where the individual syntaxa are described in a form of concise blocks. The heading includes scientific and national name of the unit, list of synonyms, location of synoptic table, and enumeration of characteristic, differential as well as constant taxa. The nomenclature of syntaxa follows the Code of Phytosociological Nomenclature. In separate paragraphs these follow the description of synmorphology, synecology, synchorology, syndynamics, syntaxonomy, and notes on nature conservation and management. This rigorous structure makes the important information readable for all phytosociologists, though the text is in Slovak language.

The next volume, which is under preparation, will deal with the ruderal and synanthropic vegetation. Under consideration is also the third volume devoted to wetland communities. At the same time a prodromus of rare and endangered communities of Slovakia is in preparation. As the first step towards this work a first version of red checklist of rare and endangered plant communities were selected. Using the IUCN criteria more than 500 plant communities were selected. Some of them are extinct in Slovakia. Approximately 100 associations belongs to the group of immediately endangered and very rare rypes. This list can serve as a basis for the intended prodromus, which would contain basic information on the diversity of vegetation for nature conservationists and land managers.

During the years much attention was paid to storage of phytosociological data (relevés and tables) into a data bank. Till taday more than 2 700 tables (comprising about 13 000 relevés) have been stored in the data base in at the Department of Geobotany. For the data processing of relevés to phytosociological or synoptic tables an original computer programme (Fytopack) was been developed. Besides, thanks to the idea of the European Vegetation Survey, the Dutch programme package Turboveg was implemented to enable unification of various data banks in neer future. A convertion program makes a direct export of our data into Turboveg data base possible.

REFERENCES

MICHALKO J., MAGIC D. and BERTA J., 1987 – Geobotanical map of C.S.S.R. Slovak Socialistic Republic. *Veda, Bratislava. 167 pp. + 12 maps.*