

**Progress of the work on the Grant Project
"European Vegetation Survey - Czech Republic" and further perspectives**

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ABSTRACT. – The international project "European Vegetation Survey" represents a step towards an overregional study of vegetation of a continent. The program of participation of Czech phytosociologists on this project has been accepted on the 2nd International Workshop "European Vegetation Survey" in 1993 and is supported by a grant of the Grant Agency of the Czech Republic. The progress of the work on this project as well as difficulties with the realization have been presented on the 4th International Workshop "European Vegetation Survey" in April 1, 1995 in Rome.

KEY WORDS – European vegetation survey, Czech Republic, phytosociology.

1. INTRODUCTION

During the first International Workshop "European Vegetation Survey" held in Rome in March 13-14, 1992 the "Situation in syntaxonomy in the Czech Republic" has been outlined by J. Moravec. This situation was not very favourable in the last decade. This had been done partly by the criticism of phytosociology from the point of view of individualistic concept of vegetation (cf. Moravec 1989, 1992), partly by the increasing interest of young botanists in population ecology. Similar situation could be found also in other countries (cf. Pignatti 1994). Nevertheless, the start of the international project "European Vegetation Survey" brought a hope that this project could stimulate syntaxonomic research.

After a discussion of the above project with the Czech syntaxonomists, a "Working program of the Czech phytosociologists for participation on the project European Vegetation Survey" has been prepared and presented on the second International Workshop "European Vegetation Survey" held in Rome the 12-13 March 1993.

The program was adapted to the 3-year-grant system used in the Czech Republic and the following three phases (corresponding to individual grants) have been planned:

1. The preparatory phase which would aim at the "Czech Vegetation Survey" (in Czech), similar to the "Austrian Vegetation Survey", i.e. without synoptic phytosociological tables (cf. Mucina, Grabherr, Ellmauer and Wallnöfer [eds.] 1993).

2. The transitional phase will aim at the computer processing of phytosociological data from the Czech Republic, revised or completed newly in the field. The elaboration of phytosociological tables can enable to prepare the second edition of the "Czech Vegetation Survey" (in English) documented by synoptic tables according to the model of Oberdorfer et al. (1977, 1978 and 1983).

3. The terminal phase will aim at the integration of the national vegetation survey into the international "European Vegetation Survey".

In Rome, the program has been accepted positively. This has been reflected in supporting letters of some members of the Working Group Council of the international project.

Application for a grant

Owing to the above support a grant "European Vegetation Survey - Czech Republic", representing the first phase of the Czech participation on the international project, has been applied at the Grant agency of the Czech Republic in May 1993 on the basis of the above program for participation of Czech phytosociologists on the international project "European Vegetation Survey".

This project was based on the cooperation mainly of senior phytosociologists of the Institute of Botany of the Academy of Sciences in Průhonice (as the main institution) and of phytosociologists of the Department of Systematic Botany and Geobotany of the Masaryk University in Brno (as the cooperating institution). The experience of these colleagues in syntaxonomic research is reflected in their syntaxonomic publications - cf. e.g. Hejný, Kopecký, Jehlík and Krippelová (1979); Moravec, Husová, Neuhäusl and Neuhäuslová-Novotná (1982); Rybníček, Balátová-Tuláčková and Neuhäusl (1984); Kopecký and Hejný (1992); Vicherek (1973). The second edition (in print) of the "Red list of plant communities of the Czech Socialist Republic and their endangerment" (Moravec *et al.* 1983) as well as the Bibliographia Phytosociologica Českoslovacca ad annum 1970 should serve as a basis of elaboration of the "Czech Vegetation Survey".

Start of the grant project "European Vegetation Survey - Czech Republic"

The grant project for the first phase has been started in September 3, 1993 by the Grant agency of the Czech Republic. It shall be terminated in

December 31, 1995. The experience gained since the beginning of our work on the project shows that the original proposal of the program was too optimistic and that it will be necessary to modify the program of individual phases according to the real situation.

It is impossible to prepare the text for all (44) vegetation classes of the Czech Republic during the period of this grant for the following reasons:

1. This period will not correspond to 3 whole years but to 2 years and 4 months only.
2. The insufficient recruitment of new young colleagues partly owing to the feeble interest of university students in syntaxonomy, partly due to high cost of living in Prague and surrounding area and to low income which young colleagues can obtain in the Academy of Sciences.
3. The participation of the regular collaborators also on other grant projects.

The working team in the Institute of Botany, Department of Geobotany, is composed mainly of senior experienced phytosociologists. Most of them offer less than 50% of their working capacity to this grant project. Younger colleagues are rather rare as can be seen from the following survey: senior colleagues (in the age above 60 years): J. Moravec, Z. Neuhäuslová, K. Rybníček; colleagues of medium age (40-50 years): J. Dostálek, J. Kolbek; younger colleagues (below 30 years): J. Jirásek (leaving during 1995), P. Nevečefal.

With this existing working team of 7 persons the following retired senior members of the Institute of Botany or earlier members without stable place cooperate within short term contracts: E. Balátová, D. Blažková, E. Hadač, S. Hejný, J. Husáková, M. Husová, K. Kopecký and Z. Kropáč. Occasionally some members of other departments of the Institute of Botany cooperate (e.g. F. Krahulec).

The working team of the Department of Systematic Botany and Geobotany of the Masaryk University consists of 3 colleagues only which participate partly on the grant after having fulfilled the pedagogical duties: J. Vicherek (senior colleague), J. Unar (medium age), M. Chytrý (younger colleague).

Despite the low number of collaborators in this cooperating institution their importance for education of young generation of phytosociologists is essential.

Progress of the work

The vegetation of the Czech Republic is classified into 44 vegetation classes. During the preceding period work on the most classes started. Nevertheless, for some classes the authors are still missing (Tab. 1).

TABLE 1

STATE OF WORK ON 44 VEGETATION CLASSES OF THE CZECH REPUBLIC (*in italics* - classes in elaboration, will be ready in 1995, bold - manuscript prepared, p - manuscript partly prepared, will be ready in 1995, * - manuscript will be ready in 1996)

1. <i>Asplenietea trichomanis</i>		23. <i>Koelerio-Corynephoretea</i>	
2. Parietarietea		24. <i>Festucetea vaginatae</i>	
3. <i>Thlaspietea rotundifolii</i>		25. <i>Sedo-Scleranthetea</i>	*
4. Juncetea trifidi		26. <i>Festuco-Brometea</i>	*
5. <i>Salicetea herbaceae</i>		27. <i>Trifolio-Geranicetea</i>	
6. Mulgedio-Aconitetea		28. <i>Betulo carpaticae-Alnetea</i>	
7. <i>Lemnetea</i>		29. <i>Rhamno-Prunetea</i>	*
8. <i>Charetea fragilis</i>		30. <i>Salicetea purpureae</i>	p
9. <i>Potametea</i>		31. <i>Alnetea glutinosae</i>	p
10. <i>Isoeto-Littorelletea</i>		32. <i>Quercu-Fagetea</i>	p
11. <i>Utricularietea</i>		33. <i>Quercetea robori-petraeae</i>	
12. <i>Isoeto-Nanojuncetea</i>		34. <i>Erico-Pinetea</i>	*
13. <i>Phragmito-Magnocaricetea</i>	p	35. <i>Vaccinio-Piceetea</i>	p
14. <i>Crypsietea aculeatae</i>		36. <i>Robinietea</i>	*
15. Thero-Suaedetea		37. <i>Epilobietea angustifolii</i>	
16. Thero-Salicornietea strictae		38. <i>Bidentetea tripartitae</i>	
17. Festuco-Puccinellietea		39. <i>Chenopodietea</i>	
18. Montio-Cardaminetea		40. <i>Artemisietea vulgaris</i>	
19. <i>Scheuchzerio-Caricetea</i>	*	41. Gallio-Urticetea	
20. <i>Oxycocco-Sphagnetetea</i>	*	42. <i>Agropyretea repentis</i>	
21. <i>Molinio-Arrhenatheretea</i>	p	43. <i>Plantaginietea majoris</i>	
22. Nardo-Callunetea		44. <i>Secalietea</i>	p

Work on some missing classes will be started during this year and we suppose to finish the texts of the most of them. However, for some classes the manuscript will be finished in the next year.

From the above outline it is clear that the final manuscript of the "Czech Vegetation Survey" can be terminated during the period of the next grant which was applied in April 1995 for the years 1996-1998. Nevertheless, the main task of the new grant project will be the computer processing of phytosociological tables of syntaxa described in the "Czech Vegetation Survey". However, owing to the low number of young colleagues this will be done for the limited number of vegetation classes only and the phase of this computer processing will need more than one 3-year grant. The selection of the classes for the next period will depend on the recruitment of new young colleagues and it will be coordinated with the progress on the "European Vegetation Survey" in other countries.

As an additional result, the publication of the Czech textbook of phytosociology — Moravec and al., 1994: *Fytocenologie* — has been finished owing to the funding of this grant project. This book can be ordered from abroad in Academia, Publishing House of the Academy of Sciences, Export Department, Vodičkova 40, CZ-112 29 Praha 1, Czech Republic.

REFERENCES

- Bibliographia Phytosociologica Českoslovacica ad annum 1970*, vol. 1-20. Příhonice 1983-1991.
- HEJNÝ S., KOPECKÝ K., JEHLÍK V. and KRIPPELOVÁ T., 1979 – *Přehled ruderálních společenstev Československa* [Survey of ruderal plant communities of Czechoslovakia]. Rozpr. Čs. Akad. Věd., ser. math.-natur., 89/2: 1-100.
- KOPECKÝ K. and HEJNÝ S., 1992 – *Ruderální společenstva bylin České republiky* [Die stauden- und grasreichen Ruderalgesellschaften der Tschechischen Republik]. Studie ČSAV, 1992/1: 1-128.
- MORAVEC J., 1989 – *Influences of the individualistic concept of vegetation on syntaxonomy*. Vegetatio 81: 29-39.
- MORAVEC J., 1992 – *Is the Zürich-Montpellier approach still unknown in vegetation science of the English-speaking countries?* Journ. Veget. Sci. 3: 277-278.
- MORAVEC J. and al., 1983 – *Rostlinná společenstva České socialistické republiky a jejich ohrožení* [Red list of plant communities of the Czech Socialist Republic and their endangerment]. Severočes. Pflr. suppl. 1983/1.
- MORAVEC J. and al., 1994 – *Fytocenologie* [Phytocoenology]. Academia, Praha.
- MORAVEC J., HUSOVÁ M., NEUHÄUSL R. and NEUHÄUSLOVÁ-NOVOTNÁ Z., 1982 – *Die Assoziationen mesophiler und hygrophiler Laubwälder in der Tschechischen Sozialistischen Republik*. - In: *Vegetace ČSSR*, ser. A, 12, Academia, Praha.
- MUCINA L., GRABHERR G., ELLMAUER T. and WALLNÖFER S. [eds.], 1993 – *Die Pflanzengesellschaften Österreichs*. Teil I-III. Fischer, Jena etc.
- OBERDORFER E. [ed.], 1977, 1978, 1983 – *Süddeutsche Pflanzengesellschaften*. Teil I-III. Pflanzensoziologie, 10, Jena.
- PIGNATTI S., 1994 – *A complex approach to phytosociology*. Ann. Bot. 52: 65-80.
- RYBNÍČEK E., BALÁTOVÁ E. and NEUHÄUSL R., 1984 – *Přehled rostlinných společenstev rašeliništ a mokřadních luk Československa* [Survey of plant communities of mires and fen meadows of Czechoslovakia]. Studie ČSAV, Praha, 1984/8: 1-124.
- VICHEREK J., 1973 – *Die Pflanzengesellschaften der Halophyten- und Subhalophytenvegetation der Tschechoslowakei*. In: *Vegetace ČSSR*, ser. A, no. 5, Academia, Praha.