

# Plant Chorology and Vegetation Science

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## Research

The Division is devoted to both branches of "geobotany", i. e. floristics and chorology on the one hand, and vegetation science on the other hand. Therefore we are dealing with the exploration, comparison and interpretation of the distribution areas of plant species, and also with the analysis of plant communities and vegetation patterns in relation to habitat, space, and time. Taxonomical, historical and ecological aspects are included in this field of interest. Actual research work concentrates on the following topics.

1. *Distribution Atlas of the Austrian Flora*. In collaboration with regional projects running in some parts of Austria, floristic data are collected for a comprehensive distribution atlas. This atlas is planned to include a detailed grid square map for each of the c. 3000 vascular

plant species of the Austrian flora. Main lines of the project are extensive floristic field work and a critical evaluation of the literature and of herbaria. A computerized database of the Austrian flora is being developed. The Austrian project is embedded into international efforts towards "Mapping the Flora of Central Europe" for which our Division is serving as the coordinating centre.

2. *Ecological and historical interpretation of distribution areas*. We analyse the factors controlling plant distribution recently as well as in the past with an emphasis on the flora of Central Europe (including the Alps and the Pannonian area) and on the Mediterranean region.
3. *Floristic change and conservation*. The evaluation of floristic data with respect to the changes that occurred during the last 150 years contributes to answer questions raised by landscape ecology and the changing human impact. We are also elaborating information of this type for conservational purposes, e. g. in the form of "Red Lists" of endangered plant species.
4. *Analysis of the geographical and ecological evolution* of species groups chosen from the Central European, the Alpine and the Mediterranean flora, in relation to their taxonomy is another field of interest.
5. *Work on Floras and floristic check-lists*. Beside our participation in the work on a new Flora of Austria (see Division of Systematics of Higher Plants) and in the Geneva based Flora of the Alps, a check-list of the Austrian flora, a check-list of the flora of the Ionian Islands (Greece), a critical Flora of the island of Kerkira (Greece), and a fully revised new edition of Ehrendorfer's "Liste der Gefäßpflanzen Mitteleuropas" (Check-list of the Central European Vascular Plants) are in preparation.

6. *Phytosociological and ecological research* is devoted to a choice of selected vegetation segments and regions, especially in the Alps and in the Pannonian xerophytic area, and to riverside habitats along the Danube. Such studies are carried out by the Division's staff members as well as within the framework of students' diplomas and theses.

## Teaching

- Flora and vegetation of Central Europe (L)  
 Flora and vegetation of Austria's natural regions (L)  
 Flora and vegetation of the Mediterranean countries (L)  
 Riverine flora and vegetation of the Danube and the March, with excursions (L + P)  
 Systematics and chorology of the Austrian flora (L + P)  
 Species and biotope conservation, using the dry grasslands of Austria as an example (L)  
 Botanical excursions (P)  
 Phytogeographical excursions (P)  
 Practical on Alpine botany (P)  
 Practical on Mediterranean botany (P)  
 Floristic mapping: field-work (P)  
 Seminar on Plant Chorology and Vegetation Science (S)

## International Cooperations

Network for Mapping the flora of Central Europe (coordinated at Vienna): Centre for mapping the German flora, directed by Prof. H. Haeupler, Prof. P. Schönfelder and Dr. H. Mühlberg at the Universities of Bochum, Regensburg and Halle, Germany; Centre du Réseau suisse de floristique (RSF) at Geneva and Bern, Switzerland; Prof. A. Borhidi, University of Pécs, Hungary; Dr. E.

Kmet'ová, Academy of Sciences, Bratislava, Slovakia; Prof. Z. Pavletic, University of Zagreb, Croatia; Prof. S. Pignatti, University of Rome, Italy; Dr. B. Slavík, Academy of Sciences, Pruhonice near Prague, Czech Republic; Prof. T. Wraber, University of Ljubljana, Slovenia (Distribution Atlas of the flora of Central Europe)  
 Prof. J. Jalas and Dr. J. Suominen, University of Helsinki, Finland (Atlas Florae Europaeae)  
 Dr. D. Aeschimann, Conservatoire botanique de Genève, Switzerland (Flore des Alpes)  
 Prof. A. Strid, University of Copenhagen, Denmark (Flora Hellenica project; responsible at Vienna: Dr. W. Gutermann)

## Selected References

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