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## Bulletin of the Geobotanical Institute ETH

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## **Editorial policy**

The Bulletin of the Geobotanical Institute ETH was first published in 1928 as the annual report of the Institute, and it has always included some scientific contributions. The Bulletin continues to report the activities of the Institute on an annual basis, but the main contents of the journal are more scientific papers. Although the Bulletin presents current results and new research projects of the Institute, we would like to include a growing number of contributions from outside the Institute. The focus of the journal is on ecology and syste-

matics of plants and fungi, but contributions on interactions of plants and animals and on landscape ecology are also welcome. Descriptive and experimental studies of communities, populations, individuals and their interaction with other organisms are all acceptable.

#### Instructions to authors

The Bulletin is published on an annual basis in July (price per volume 40 Sfr). The deadline for submission is the end of February. Manuscripts in English are preferred, but German contributions will also be accepted. Three copies and one disk copy (3½-inch diskettes; Word, Excel) of the manuscript with all illustrations and tables should be send with a covering letter to Dr. J. Kollmann, Geobotanisches Institut ETH, Zürichbergstrasse 38, CH-8044 Zürich, Tel. +41-1-632-4307, Fax: +41-1-632-1215, kollmann@geobot.umnw.ethz.ch. Authors must confirm that the manuscript has not been submitted elsewhere. All parts of the manuscript must be typed doublespaced, with margins of 2.5 cm. The style of the manuscript (especially of the references) should be adapted to the last issue of the Bulletin. Abbreviations and symbols must be defined when they are first mentioned. The elements of the manuscript should be presented in the conventional order, including up to six keywords. For a description of these elements we refer to the current international standard of scientific papers. Manuscripts are submitted to two reviewers for evaluation of their scientific soundness and significance. Authors will generally notified of acceptance, rejection, or need for revision within 1-2 months. Fifty offprints are supplied free of charge. Additional reprints may be ordered when authors will receive the proofs for verification.

## **Preface**

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"Quadrat, vasculum, sweep-net and specimen bottles were the symbols of the profession and, with some exceptions, the prevailing philosophy was dominated by taxonomy, spatial correlation and speculation" (J.P. Grime, 1993, Oikos, 68, 385). Amongst the natural sciences, both ecology and systematics have long suffered from a "bad image", often being regarded as old-fashioned, descriptive and technically unsophisticated. Grime's description of ecology as it was practiced before 1960 neatly summarises the prejudices which many still hold about our subjects. However, as Grime goes on to point out, ecology has undergone an enormous expansion and diversification since 1960; the same is also true of the study of systematics, which has experienced a revolution thanks to recent technical and conceptual developments. Powerful new tools have become available which have greatly extended the range of questions which we can tackle in a quantitative way. At the molecular level, our capacity to determine the genetic identity of individuals and the relatedness of taxa is such as would have seemed inconceivable in 1960. The advent of computers has transformed our ability to understand complex multivariate systems, including both the structure of the genome, and the structure of vegetation. Geographic information systems are emerging as a promising way to study quanti-

tatively spatial processes which in 1960 could only be described in terms of simple conceptual models. Both modelling and experimental approaches are firmly established as part of the essential methodology of ecology and systematics.

These reflections are prompted by the contents of this year's Bulletin. In a modest way, this issue demonstrates the range of methodologies and heuristic approaches that our subjects now routinely employ. In this issue you will find work using modern molecular methods, for example to investigate how inbreeding affects the genetic structure of species in the genus Aconitum (Utelli et al.). There is also a preliminary study on the importance of landscape structure for seed dispersal, showing how GIS can be used to quantify the structure of the landscape (Kollmann & Schneider). Several of the papers take an experimental approach, including one which shows how experiments conducted over a wide geographical range, but using precisely the same procedures, are particularly valuable in the search for ecological generalizations (Diemer et al.). Finally, and in no way least, you will find papers using traditional descriptive techniques. We certainly do not need to apologise for work which is technically simple, if the questions which are posed are worth asking. After all, most mathematicians use only a pencil!