

Feoli, E., Orloci, L. (ed.): **Computer Assisted Vegetation Analysis**. (Handbook of Vegetation Science. Vol. 11). - Kluwer Academic Publishers, Dordrecht - Boston - London 1991. 498 pp. NGL 425.00.

Vegetation is a very complex system determined by interactions between plants and the environmental factors. Both are changing in time that makes the analysis of vegetation states and dynamic very difficult. Mathematical methods and wide-scale use of computers are, of course, very useful.

The reviewed handbook presents topics emerging out of recent needs and interests in vegetation analysis. In fact, it is a collection of 42 papers written by top scientists and ordinate into several clusters. In the first one, ten papers are devoted to computerized sampling methods and character selection. Most of the remaining contributions cover various aspects of data evaluation: similarity measures, application of probabilistic methods, classification of variables and communities. To the most interesting belong several papers on ordination, introducing some new concepts, *e.g.* flexible gradient analysis (in which sampling and data analysis run concurrently), or community niche (extending the niche concept to community). General reviews of spatial patterns and of the models for pattern analysis are also presented, as well as some approaches to mapping ecological and vegetation variables.

Many computer program packages, which are developed for vegetation analysis, are presented in the last section, together with abundant examples of their use. It only increases the value of this excellent handbook, which can be recommended to all ecologists.

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