

Lichen Mapping in the Federal Republic of Germany

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With 1 figure

The first efforts to start a grid mapping of lichens in Germany date back to the late sixties. This mapping was restricted to the Black Forest and surrounding regions and was based on a rather low scale grid system with units of approx. 5 km x 6 km ("Meßtischblatt-Quadranten"). In these days the basic map scheme still had to be printed on a private basis. In the meantime interest in lichen mapping has grown significantly and several mapping projects receive financial support by governmental institutions: in the federal states of Baden-Württemberg, Rheinland-Pfalz, Saarland and Schleswig-Holstein.

In Germany identical grids are used for lichen mapping and for the other floristic mapping projects (WIRTH & RITSCHEL 1977, WIRTH 1984). The same grid has been adopted in the mapping projects of Czechoslovakia, Austria and the German Democratic Republic. It is a great advantage of this system that the grid units are identical with those of the basic general map of Germany which is available everywhere. The grid size is 6 x 10 geographical minutes, i. e. about 11 km x 12 km. In the lichen atlas of Great Britain grid units of a similar size (10 km x 10 km) are being used. I do not recommend considerably smaller units as they require much more efforts and make homogeneous mapping of large areas difficult. In other words, it is better to map the whole country in a reasonable time, than mapping a few regions in a very detailed manner and others not at all. Assembling information on a very small grid may be justified from a regional point of view but not from a national one. These statements hold true especially for those countries, where lichenology is not given as high a rank as elsewhere.

A historical classification according to records made before 1900, between 1900 and 1950 and after 1950, was recommended in the first appeal for lichen mapping in Germany (PHILIPPI & WIRTH 1973). In the atlas of Baden-Württemberg (WIRTH 1987) records were assigned to the periods pre-1900, 1900 to 1949, 1950 to 1974 and from 1975 onward. In this case the actualization was important in order to demonstrate the decline of lichens and to make the atlas better usable for the analysis of actual problems. This historical differentiation is recommended as a necessary standard for all other regional mapping projects in Germany in order to ensure the compatibility of the data within a future German lichen atlas. This approach guarantees a still satisfying degree of actuality and considers the fact that most of the data were collected in the period from 1975 onward.

We are using a mapping field list including the names of more frequent and more important lichens. The names of registered species have to be underlined. Additional species must be noted separately; this is an important psychological drag for all those less experienced in more difficult species. In future we will design a new, more complete list. A checklist of the lichens of Germany is in preparation. At the moment compilation of the data in the different regions is still done manually or

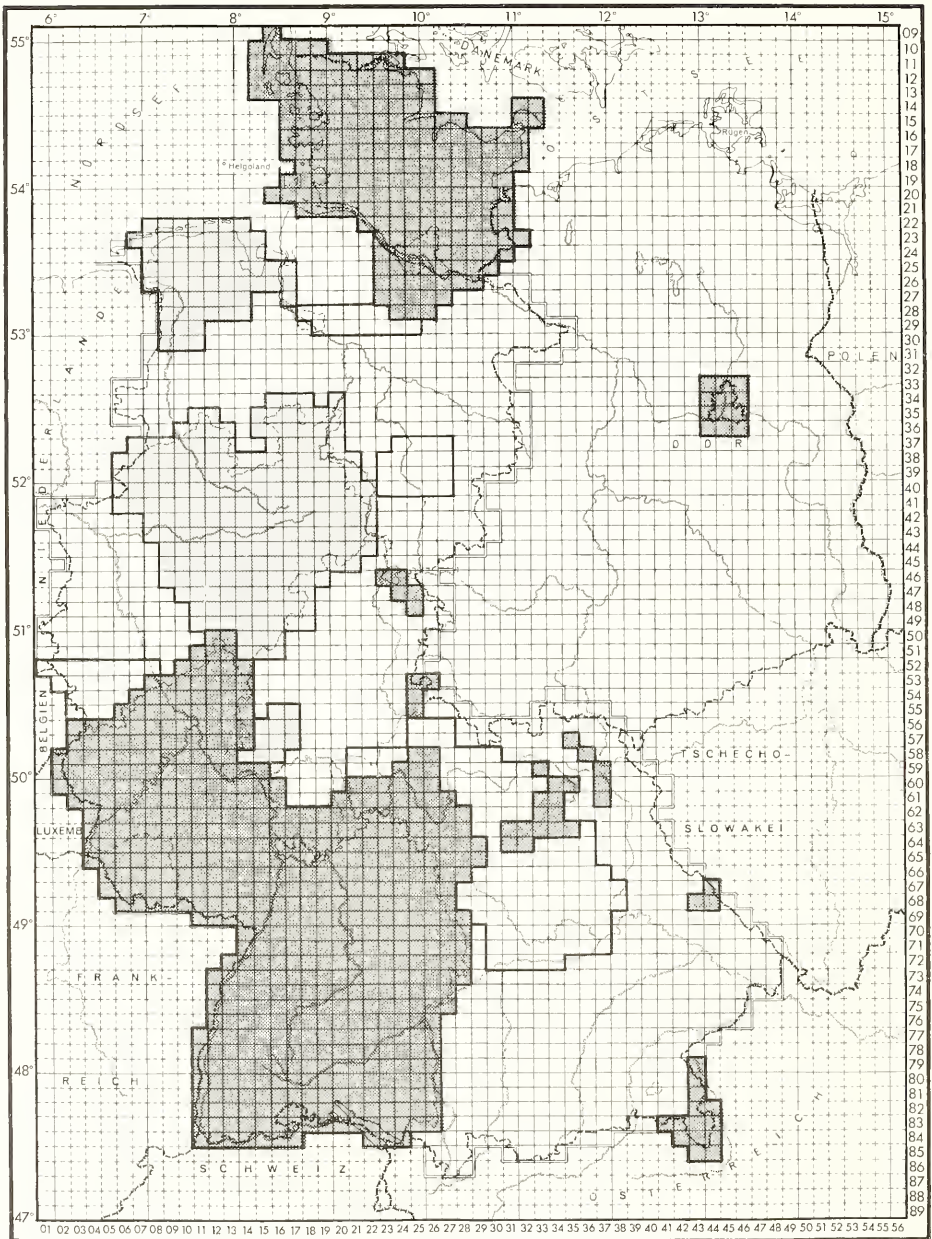


Fig. 1. Grid mapping of lichens in the Federal Republic of Germany. — Dark grey: Lichen mapping in advanced state or already finished; — grey: Lichen mapping extensive, in progress; — frames: only epiphytes or higher lichens mapped. Mapping in single isolated grids is not considered.

aided by computers, using different programs for data management. But a sophisticated computer program for floristical purposes is being developed in Germany.

An overview of the state of regional lichen mapping in the FRG is shown in Fig. 1 and on page 151 (compare also ERNST 1990, GROOTEN & WOELM 1986, JOHN 1986, 1987, 1990, KÜMMERLING 1990, LEUCKERT et al. 1982, RITSCHEL 1976, 1977, SCHNEIDER 1985, TÜRK & WITTMANN 1987, WIRTH 1987). Detailed informations on the different regional projects are given in Part III of this volume. Large areas of West Germany (FRG) are not covered by a systematic mapping project. Nevertheless detailed floristic informations are available for many single units in these „white“ regions. These grid units are dispersed all over Germany and partially a great amount of data have already been compiled. They have been omitted in Fig. 1.

Additionally many floristic publications exist dealing with localities and regions scattered all over Germany. The demonstration of successful mapping in several parts of this country (e. g. more than 1000 maps have been worked out for SW-Germany) will surely stimulate progress in the „white“ areas. Final aim of all lichen mapping in Germany will be a compilation of the data and a publication of an Atlas of the German Lichen Flora. In order to achieve this goal, a methodical mapping by full-time lichenologists in several additional federal states is desirable (Niedersachsen, Nordrhein-Westfalen, Hessen, Bayern) and should be realized by governmental financial support for a period of approximately 5 years. Nevertheless, sufficient data are already available in order to enable Germany to make satisfactory contributions to a European mapping project.

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