

Mapping Lichens and Lichenicolous Fungi in Belgium and Luxembourg

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With 2 figures

1. Introduction

The lichens and lichenicolous fungi of Belgium and Luxembourg have been studied since the beginning of the last century. The first important lichenologists were CLÉMENT AIGRET, JEAN KICKX, MARIE-ANNE LIBERT, LOUIS MARCHAND and FRANCOIS AUGUSTE TINANT. At the end of the 19th century two surveys were published including the available information on lichens of Belgium (DE WILDEMAN 1898) and Luxembourg (KOLTZ 1897). In 1938 a checklist of the Belgian lichens appeared, listing 586 species, but no chorological or ecological synthesis has been attempted (DUVIGNEAUD & GILTAY 1938).

In 1958 JACQUES LAMBINON began important investigations on macrolichens and prepared distribution maps for all species, except for *Cladonia* (LAMBINON 1966, 1969). More recently WAGNER-SCHABER (1987) published distribution maps of 55 species of epiphytic macrolichens in Luxembourg.

Since 1980 we have focused our attention on microlichens and on lichenicolous fungi, and one of us presented distribution maps of 240 Luxembourgish epiphytic species in his Ph. D. thesis (DIEDERICH 1989).

The data available from herbarium specimens, field observations and literature are now being fed into a computerized database in view of future applications like the publication of an annotated checklist or of a distribution atlas.

2. The computerized database

A computer program has been developed by P. DIEDERICH (see this vol.) written in Turbo Pascal for floristic and faunistic databases. The following information is stored:

- Country,
- subdivision of the country,
- locality,
- geographical coordinates,
- altitude,
- date of collection or of observation,
- ecology,
- frequency,
- references (observer, collector, collection, number, etc.),
- publication dealing with the data,
- comments,
- certainty of data (doubtful or sure),
- species.

The program offers facilities such as printing distribution maps on screen and printer (Fig. 1), preparing reports for inclusion by a word processor in manuscripts, answering complex questions, etc.

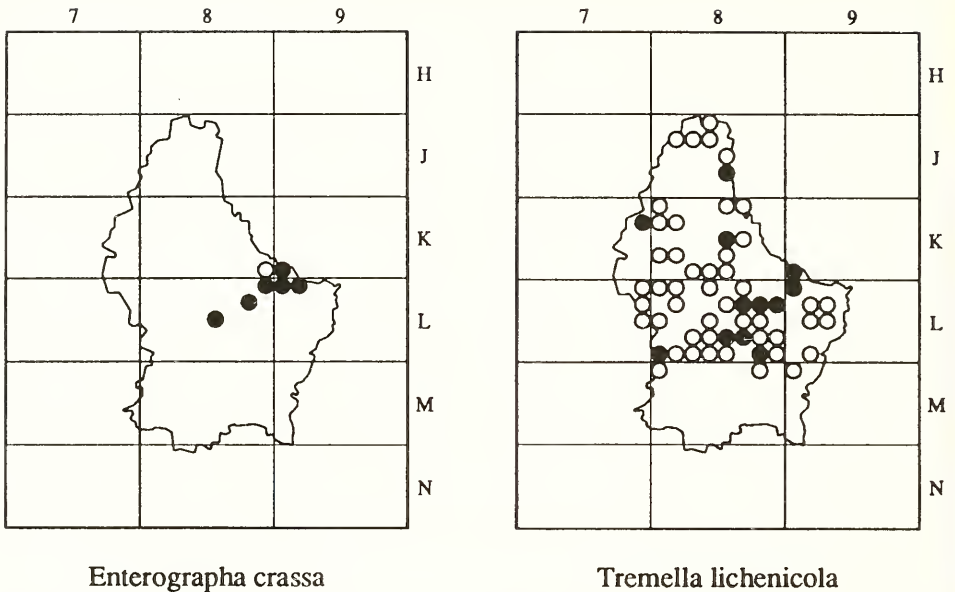


Fig. 1. The distribution of the lichen *Enteroglypha crassa* and of the lichenicolous fungus *Tremella lichenicola* in Luxembourg. — Black disks represent herbarium specimens; white disks represent field observations. — Both maps have been printed by computer.

3. The mapping grid

The phanerogamic flora of Belgium and Luxembourg has been mapped using a national grid system called I.F.B.L. ("Institut Floristique Belgo-Luxembourgeois") with squares of 4 km x 4 km subdivided in squares of 1 km x 1 km (Fig. 2). For practical reasons this system has also been adopted for lichens; the 10 x 10 km² square in the U.T.M. grid is calculated for every locality by the computer, allowing compatibility with international mapping schemes.

4. Aims

(a) In 1993 we plan to have a complete database on lichens and lichenicolous fungi in Belgium, Luxembourg and the "Département des Ardennes" in northern France. For that purpose all old herbaria will be studied critically, and the most interesting localities and sites will be investigated carefully.

(b) At the same time an annotated checklist of the taxa including chorological and ecological data will be published.

(c) A distribution atlas will be available on computer. Maps of selected species or a complete atlas will probably be published.

5. Acknowledgements

We wish to thank Mr. JEAN KRIER for revising the English text of the manuscript.

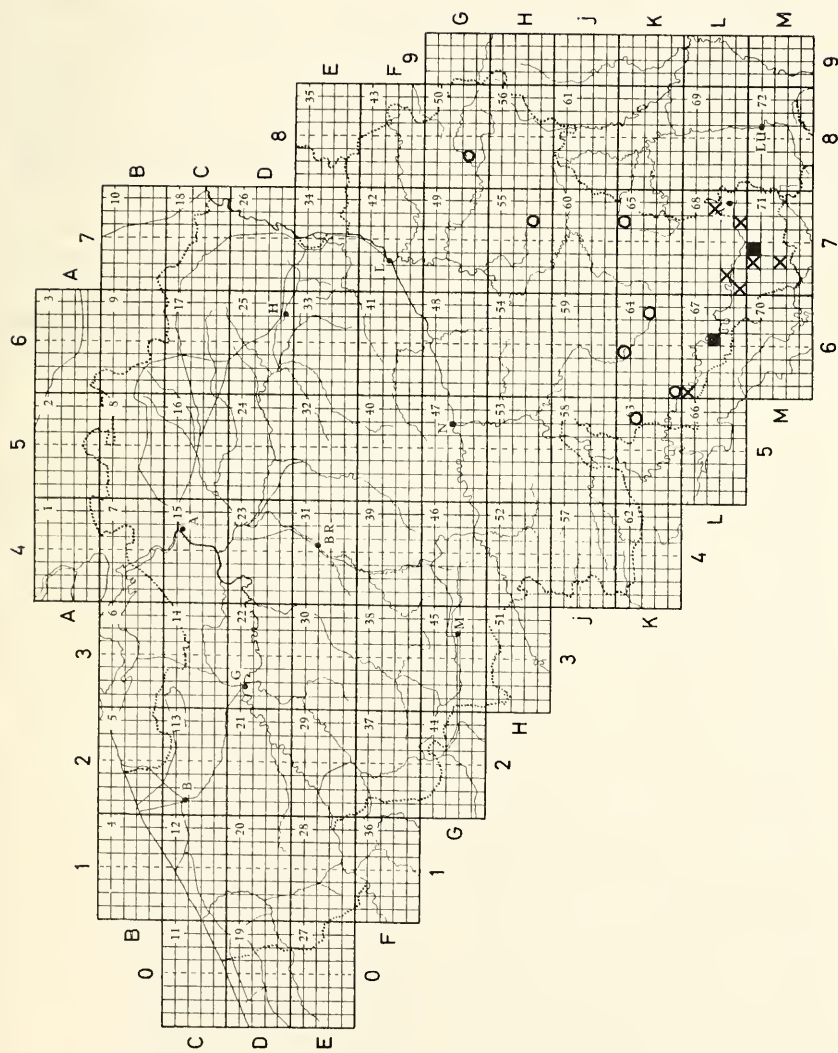


Fig. 2. The distribution of *Lobaria scrobiculata* in Belgium and Luxembourg. — Circles represent data before 1910; crosses represent data from the period 1910–1970; black squares represent data after 1970.

6. Literature

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ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Stuttgarter Beiträge Naturkunde Serie A \[Biologie\]](#)

Jahr/Year: 1990

Band/Volume: [456_A](#)

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Artikel/Article: [Mapping Lichens and Lichenicolous Fungi in Belgium and Luxembourg 103-106](#)