

Book review

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Mycota (Huby), Ascomycetes (Vreckaté), Múčnatkotvaré (Erysiphales).

- in *Flóra Slovenska* (10), 1, 292 p., 121 figs., Veda, Bratislava, 1995.

In the first part of the monograph of Slovak powdery mildews principles of morphology and ecological physiology of genera and species are shortly presented including the importance of both aspects and their variability for the taxonomy of the order. Recent classification systems which has had great influence on the investigation of Erysiphales in the whole world are shortly discussed. The first part also contains the main methods in the study of these economically very important plant pathogens. Tabular reviews present a survey of the members of powdery mildew genera and data on the occurrence on host plants of various families of the Slovak flora. A list of Slovak plant families illustrates their relation to individual species and genera of powdery mildews. The geographical distribution of individual fungus species is demonstrated in the table listing the plant geographical regions of Slovakia. The history of investigation and the recent state of study of Erysiphales in Slovakia concludes the first, general part.

The specific part contains descriptions of 108 species parasitizing on about 700 plant hosts. In Slovakia most species are known in perfect state (teleomorphs), as imperfect species (anamorphs) only seven species are known (genera *Oidium* and *Oidiopsis*). The perfect state is produced by the following genera: *Sphaerotheca*, *Podosphaera*, *Erysiphe*, *Blumeria*, *Arthrocladiella*, *Microsphaera*, *Sawadaea*, *Uncinula*, *Leveillula* and *Phyllactinia*. Each species of powdery mildews is characterized by the morphology of its conidia, conidiophores, appressoria, cleistothecia, peridial cells and appendices. The shape, size and variability of asci and ascospores is recorded. All organs mentioned are illustrated by sketches. The occurrence of individual species is presented as in previous volumes of the *Flóra*, viz. according to their presence in plant geographical regions; thus the comparison of the geographical distribution of powdery mildews with that of their host plants is facilitated. I consider the comparison of the distribution of both fungus and its host very important as powdery mildews are obligate (biotrophic) parasites. The keys for the identification of the species are presented in each genus. An English and German summary and a register of scientific names of host plants and their mildew species are given at the end of the monograph. Particularly for national use is the proposal for Slovak names of genera and species.

The present monograph is a very valuable contribution to the knowledge of Slovak Erysiphales and very useful to the investigation and study of these plant pathogens in Europe, especially Central Europe. It will find its use in routine practice as well as scientific work at various experiment institutes for agriculture and forestry, at institutions for nature and plant protection and at universities for the education of biologists and scientific workers.

The book is written in Slovak.

Zdeněk Urban