

Book reviews

Crous, P. W. 1998. *Mycosphaerella* spp. and their anamorphs associated with leaf spot diseases of *Eucalyptus*. Mycologia Memoir No. 21, APS Press, 3340 Pilot Knob, St. Paul Minnesota 55121-2097, USA; ISBN: 0-89054-190-6; 170pp with 140 black and white illustrations.

The aim of this taxonomic treatment of *Mycosphaerella* spp. on *Eucalyptus* leaves and its anamorphs is the analysis of the heterogeneous genus *Mycosphaerella*. At the same time, the book provides a practical identification book in which the systematic position of the various taxa is also discussed. The data collected and analysed result from material examined on the host leaves and from extensive cultural studies. A total of 57 species including 6 new taxa of *Mycosphaerella* are treated. Anamorph species in the genera *Cercospora*, *Lecanostictopsis*, *Mycovellosiella*, *Passalora*, *Phaeoramularia*, *Pseudocercospora*, *Pseudocercosporiella*, and *Stigmata* are also described. A brief introduction and overview outline the difficulties of assigning leaf blotch diseases to the respective *Mycosphaerella* species. The heterogeneity of this genus has been analysed numerically by multiple correspondence analysis (MCA) to detect characters relevant for species separation, e.g. germination pattern of ascospores, and to group species. The resulted minimum spanning tree shows that the 18 *Mycosphaerella* species with known anamorphs cluster according to their anamorphic genera. Two keys to the identification of the teleomorphs and the anamorphs are provided. At first sight, these keys are well suitable to identify such a specimen, but their regular, practical use will have to prove it.

The main part of the book includes the species descriptions in strict alphabetical order. They are clearly structured and therefore easy to read. Each taxon is completely illustrated by excellent line drawings, some of them and the associated disease symptoms by photographic plates. In several cases (e.g. figs. 20-32, 50-57, 68-77), however, the size has been too much reduced, thus diminishing their information content. Figure 3, representing the characters for species separation, is very crowded, especially in the centre areas. A larger scale might have helped to a better reading. The book ends with notes on species not treated and a discussion on the placement of *M. mycopappi* in *Didymella* and the placement of its anamorph in a new genus (*Xenostigmata zilleri*). A general index and an index to the host plants completes the book.

In the whole, the book is a very valuable contribution to the knowledge of the genus *Mycosphaerella* and the respective anamorphs. It is based on extensive literature review and careful examination of material, including types, and standardised culturing work. I am delighted to see such a large taxonomic treatment published, which is certainly a must for all mycologists interested in this complex and fascinating genus.

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Hansen, L. & H. Knudsen (eds.) (1997). *Nordic Macromycetes*, Vol. 3. – Nordsvamp-Copenhagen 1997, 444 pp.

The series dedicated to the “Nordic Macromycetes” examines the distribution of macromycetes (mainly Basidiomycetes, but to a lesser extent also Ascomycetes) in the five Scandinavian countries (Iceland, Norway, Sweden, Finland, Denmark) as well as in the islands that are geographically or politically dependent on both Norway or Denmark.

This project was started as early as 1976 and was carried out with the active help of professional and hobby mycologists who were not scared by the problems linked to such an endeavour. In fact, not only a large number of collections had to be examined and studied, but the recent paradigm shift in the taxonomic thinking brought up new models and new techniques that had to be taken into account for the preparation of taxonomic monographs and floristic accounts. New findings in ultrastructural work, but above all results from biochemical and molecular biology work led to new cladistic and taxonomic models. According to Henning Knudsen, however, this is only the beginning and the next decade will bring about new and even deeper changes in taxonomic thinking, as a result of new research work.

The taxonomic system used in this book follows the outline proposed by Jülich (1981), taking into account, however, changes and additions proposed by Swann & Taylor (1993).

Introductory notes briefly outline how to use the book and to collect data. The introduction is clear, complete, concise yet very accurate.

For each genus, the number of species reported in the area studied is given. The individual descriptions provide information on the name of the species as reported in the last edition of the International Code of Botanical Nomenclature (Greuter et al., 1994), as well as on its most important synonyms, its macro- and microscopical characters, its common name (if available, and usually in the five languages of the corresponding countries), its ecology, biology, phenology, edibility and toxicity. Bibliographic references and the sources of illustrations are reported as well.

The distribution and the frequency of observations in the country in which it has been recorded is given for each species. A code indicates the frequency of a given species (common, occasional, rare, etc.). The area studied has been divided into five vegetation zones and each country into its geographic counties. For rare species the county of origin is indicated. For taxa that are extremely rare (less than three collections overall), the exact co-ordinates of the site are given. All drawings are limited to the most important characters, yet they are very clear and accurate.

A very detailed index is provided and each chapter bears the name of its author.

The authors of the book have obviously tried a novel approach to the taxonomy of these fungi, by avoiding to put too much emphasis on the structure of the hymenophore, a so far much used character that has shown to be quite problematic when the whole class of the Basidiomycetes is taken into consideration. This modern approach may actually disturb a few mycologists who are inclined to follow the traditional taxonomy, it is, however, a very useful tool towards a new taxonomic approach to these organisms. While the morphology of the hymenophore is no longer the most important identification character, the authors anticipate that DNA analysis will soon become a crucial tool to support morphological classification.

The book deals also with suprageneric classification. The former use of Heterobasidiomycetes, Homobasidiomycetes and Gasteromycetes is abandoned, as it must be considered obsolete and at least partly artificial. The Basidiomycetes are now considered a phylum and are divided into three classes. In this volume the

Urediniomycetes and the Ustilaginomycetes are represented by two orders, whereas 35 orders in the Hymenomycetes are presented.

This volume is well structured, clear, precise, concise yet very useful and complete. It provides the reader with a clear and modern overview of the distribution and ecology of the macromycetes in the Nordic Countries and at the same time indicates very unequivocally the new research trends. The book can be considered a good tool to start the study of these fungi, at the same time providing a good reference for more detailed taxonomic and ecological investigations.

As a mycologist particularly interested in Mediterranean fungi I only regret that the book does not include any reference to the South European regions, where often quite distinct mycota can be found that are otherwise not present in the Nordic countries.

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References

- Greuter, W. et al. (1994). International Code of Botanical Nomenclature (Regnum Vegetabile 131). – Koeltz Scientific Books, Königstein.
- Jülich, W. (1981). Higher Taxa of Basidiomycetes. – J. Cramer, Vaduz.
- Swann, E. C. & J. W. Taylor (1993). Higher taxa of basidiomycetes: an 18S rRNA gene perspective. – *Mycologia* 85: 923–936.

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