BOOK REVIEW

Ecology and coenology of Dutch macrofungi. These two extensive volumes* (407 pp. excl. tables; and 510 pp. excl. 8 coloured plates) are the landmark in mycology, and the first account of its type covering the larger fungi. The publications are based on the author's doctorate thesis and blend the principles of ecology with those of the taxonomy of larger fungi. The study was conducted in grasslands and heathlands in the Drenthian phytogeographic district in the north-eastern part of the Netherlands, and also investigated the relationships between fungal and vascular plant (and bryophyte) communities and the soils on which they occur. The communities represented by 64 plots in nine alliances were studied for a three-year period.

Volume I covers the syntaxonomic and synecological aspects of the study, investigating the composition of communities of macrofungi, both in qualitative and quantitative respects, occurring in the major vegetational types. Fifty-four tables and 45 figures, the former showing the study area, support the data, whilst in the three accompanying appendices a full list of fungi found during the study (App. A), lists of fungi for each of the investigated plots during the entire study period (App. B pp. 274–347) and tables of edaphic information for these sites (App. C pp. 348–407) are given.

Volume 2 is split into two parts, the first of which treats the autecology of 346 taxa, their frequency, substrate and microhabitat preferences, relationship with edaphic characters, and periodicity. The ecological spectra are offered for just less than a third of the taxa found, and the periodicity of about the same number is demonstrated in diagrams and compared with available published mycoecological data.

The second part of the second volume lists all the collections of 352 taxa found during Arnold's investigation, with descriptive information on about 200, including 26 which are described as new. Fifteen new combinations are also made so the work is also of importance to taxonomic agaricologists, especially as 37 taxa are illustrated in eight coloured plates; 145 text-figures indicate the important taxonomic characters. The new taxa are listed in Appendix A.

A list of references in Vol. 2 contains 335 titles; fewer occur in Vol. 1 but together they constitute a comprehensive source of mycocoenotic references for workers in the field. An index in Vol. 2 lists the names of fungi mentioned in both volumes.

The covers of each volume are attractively illustrated with line drawings and although much of the text and tables is in small print it is quite clear. The colour plates have been reproduced exceedingly well.

These books are of importance to all workers in larger fungi and should be a reminder to plant ecologists that fungi must not and need not be left out of their future field studies. Arnolds' thesis admirably brings together the thoughts of the Dutch school of mycologists which have been directed and stimulated over the years by Prof. J. J. Barkman. A lot more work has to be done, and although this kind of study is in its infancy, Arnold's publications have made a significant contribution. I hope that mycologists will follow this exciting work. Arnolds' patient and meticulous observations have been justifiably rewarded.

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* E. Arnolds, *Ecology and coenology of macrofungi in grasslands and moist heathlands in Drenthe, the Netherlands.* Vol. 1 (Part 1, Introduction and Synecology) 1981, Vol. 2 (Part 2, Autecology & Part 3, Taxonomy), 1982. J. Cramer, FL–9490 Vaduz; *Bibliotheca Mycologica* 83 & 90 respectively. 407 & 510 pp., 295 figs, 8 coloured plates. Vol. 1: DM 120; Vol. 2: DM 200.