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FUNGI OF AUSTRALIA VOLUME 2B. CATALOGUE AND BIBLIOGRAPHY OF AUSTRALIAN FUNGI 2 BASIDIOMYCOTA P.P. & MYXOMYCOTA P.P. May, T.W., Milne, J., Shingles, S. & Jones, R.H. (2003). ABRs/CSIRO Publishing, Melbourne, Australia. xxxii + 452 PP. Price AUS\$99.00.

This hardback volume deals with the taxa reported to occur in Australia in 24 Orders of Basidiomycotina (Agaricostilbales, Atractiellales, Auriculariales, Bondarzewiales, Dacrymycetales, Fistulinales, Ganodermatales, Gomphales, Hericiales *p.p.*, Hymenochaetales, Lachnocladiales, Lycoperdales, Nidulariales, Phallales *p.p.*, Platygloaeales, Poriales *p.p.*, Schizophyllales *p.p.*, Sclerodermatales, Septobasidiales, Stereales *p.p.*, Thelephorales, Tremellales, Tulasnellales and Tulostomatales), and nine Orders of myxomycete-like pseudofungi, the Acrasiomycota (Acrasiales), Dictyosteliomycetes (Dictyosteliales) and Myxomycota (Ceratomyxales, Echinosteliales, Liceales, Physarales, Protosteliales, Stemonitales and Trichiales). Five of the Orders of Basidiomycotina included in *Fungi of Australia 2B* were treated in part in *Fungi of Australia 2A* (Hericiales, Phallales, Poriales, Schizophyllales and Stereales). A total of 1391 accepted names in 318 genera are listed in *Fungi of Australia 2B*.

The text comprises an Introduction (13 pages), colour photographs of representative taxa (16 pages), nomenclatural treatment (340 pages), references (58 pages), citation of literature, abbreviations and contractions (four pages) and index (50 pages). The content follows the format of *Fungi of Australia 2A* but the cover and page layout are more attractive in this volume. For those taxa, the type specimen of which is from Australia, a full synonymy is provided. For other taxa only synonyms that have been used in reference to the presence of the fungus in Australia are listed. A welcome new feature is the citation of the basionym for each accepted species if the species has since been recombined. Internationally there is a move to holomorphic treatment of taxa of fungi. It was disappointing to find that, with very few exceptions, anamorphs are not included in *Fungi of Australia 2B*.

The authors of *Fungi of Australia 2A* were experts in the Agaricales. With the present volume the authors are not experts in the Aphylophorales and this sometimes shows. The introduced wood wasp *Sirex noctilio* is an economically important pest of *Pinus* trees and forests in Australia and New Zealand. The tree pathogen with which *S. noctilio* has a symbiotic relationship was not identified with certainty for many years. In 1966 Jocelyn King concluded there was 'considerable evidence that *Amylostereum chailletii* and the *Sirex* fungus are monospecific'. For several years the name *A. chailletii* was used in the forest entomology and forest pathology literature. Later studies by Philip Gaut proved, however, that the correct identity of the *S. noctilio* fungus is *A. areolatum* (Fr.) Boidin. Neither of these papers (Gaut 1969, King 1966) is cited and *A. chailletii* is mentioned only as the type species of the genus *Amylostereum*. The important paper by Price (1975) is annotated as follows '[The author carried out this work in Australia, but does not indicate the source of the material examined. We list only records of species with Australian types.]' It seems no effort was made to locate the Ph.D. thesis in Adelaide from which the paper was prepared. Had the effort been made some additional taxa would be listed as occurring in Australia.

As a comprehensive list of names of taxa (of the Orders treated) reported to occur in Australia this book is a landmark publication. The rigorous authentication of the nomenclature by the editors is the cream on the cake. However, it is not a specimen-based treatment, and the listing of a binomial does not guarantee the occurrence of that taxon in Australia. Some indication in the text of the confidence of the identification would have been very useful and should be considered for future volumes. This book will be invaluable to taxonomists working on the Aphylophorales and myxomycetes of Australia. It will be useful also to those working on the biosecurity of Australia provided they understand it is only a list of names of taxa reported from Australia. It most definitely will not be a comfortable read for people who are averse to nomenclature.

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