

## BOOK REVIEW

## EUCALYPT DIEBACK IN FORESTS AND WOODLANDS

Edited by K. M. Old, G. A. Kile and C. P. Ohmart

CSIRO, Melbourne. 1981. 285 pages. ISBN 0 643 02835 8

The title of this book is rather more all-embracing than its contents – it is in fact a compilation of papers presented at a conference on dieback diseases of *Eucalyptus* **other than those caused by *Phytophthora***. This fact is mentioned in the introduction but since few people except reviewers read the introduction and as *Phytophthora*-induced dieback in Australia has received a good deal of publicity and attention, it would have been kinder to make the scope of this volume clear in the title to save people from scouring the contents to get the latest story on *Phytophthora*. Perhaps it is a well-thought-out ploy to make sure that the volume is read thoroughly!

The papers in the book are arranged in four main sections. Nine papers are included in the first section headed "Eucalypt diebacks in Australia". The first paper deals with the definition of "dieback" and with the difficulties involved in determining the cause of dieback, and the next two papers give a general account of diebacks in forests and in rural areas of Australia. The remaining six papers give, in greater detail, an account of diebacks in individual states of the Commonwealth. These factual accounts give a good idea of the level of knowledge about the problem in the different states and illustrate the diversity of causes that lead to the general condition called dieback. The second section on "Surveys of eucalypt dieback and associated changes in flora and fauna" (seven papers) covers survey methods for the assessment of the incidence of the dieback and associated site factors, and the effect of the decline on wildlife – mainly birds. There are 12 papers in the third section entitled "Aetiology of eucalypt diebacks". Five of these are concerned with insects and are mainly specific accounts of studies on one or two species. Three papers on fungal pathogens follow – one on foliar pathogens, one on *Armillaria*, and one on taxonomic generalities. The general impression gained is that although eucalypts have many insect pests, none can be clearly shown to be the primary agent causing dieback and the fungal pathogens also are almost certainly secondary. Next are three papers on the possibility of drought as a primary factor leading to dieback. One of these is a general paper outlining the difficulties of pinning down the effects of drought and the next two deal with specific cases in which severe drought is implicated as the trigger for the development of dieback. The last paper in this section is on salt tolerance of eucalypts. The final section is called "Management of dieback-affected areas". It is a rather mixed bag of seven papers, only one of which actually discusses management of a dieback-affected area and presents evidence to show that prescribed burning in this locality can reduce the incidence of dieback. The other

papers are on various unrelated topics: on management of tree cover on water supply catchments where water quality is the main concern, on how to establish eucalypts in pasture, on systems analysis of eucalypt diebacks assuming that insect defoliators are one of the main factors, on a survey of dieback and site factors, and on proposals for future research. The volume ends with a series of conclusions and recommendations. There is no index.

As with most symposium proceedings, the quality of the papers is variable. There are some excellent papers and some which have obviously been hastily cobbled together for the occasion. The style of presentation, the amount and quality of data presented, and the relevance to the section in which the paper is placed vary widely and the Editors do not seem to have made any attempt at achieving uniformity. The lists of references could have done with more checking – a number of references mentioned in the text are missing from the list and some (e.g., Roberts and Sawtell, 1981 p. 25) are clearly wrong.

These are minor defects in a volume which brings together so much diverse information on diebacks of eucalypts in Australia. The amount of work reported on in this compendium is very impressive, and forest pathologists and forest managers in other countries will find this book most instructive if they are ever unlucky enough to encounter similar problems in their native vegetation.

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