

BOOK REVIEWS

RESEARCH FOR FOREST MANAGEMENT

Edited by J. J. Landsberg and W. Parsons.

Proceedings of a conference organised by the Division of Forest Research, CSIRO, 21-25 May 1984, Canberra, 1985. 296 pages. ISBN 0-643-03783-7. A\$20.00.

Pairs of researchers with basic and applied research orientations were invited to give papers on specific topics to an audience of researchers and managers with the objective of improving the dialogue between the different groups.

The invited papers, many specific to Australia, concentrate mainly on the biological aspects of forestry. Topics covered are carbohydrate production, nutrition, water relations, genetics, micro-organisms, fire, harvesting, and modelling.

The papers are generally easy to follow and have few typographical errors. In the majority of cases the pairs of papers present a very different point of view.

As well as technical papers, there is an introduction to the conference objective, the opening address, and a summary of the conference. These emphasise the different priorities of researchers and managers and suggest ways of overcoming communication problems.

The book is a valuable contribution as the diverse views of both basic and applied researchers are presented in one volume. It will be useful to anyone interested in exploring the differences in approach, or concerned with improving communication between different groups. However, the objective of the conference could have been better met if there was a third paper in each group written by forest managers on their requirements from research.

J. C. Grace

INTERACTION THEORY IN FOREST ECOLOGY AND MANAGEMENT

by Rolfe A. Leary

Martinus Nijhoff/Dr W. Junk, The Netherlands, 1985.

219 pages. ISBN 90-247-3220-4. US\$39.50.

For those who have been intrigued by the encyclopaedic mind of Egolfs Bakuzis and have wished to see his ideas in print, this book provides an insight as expressed by one of his pupils. Drawing heavily on the influence of Egolfs, the author has developed a multidisciplinary blend of philosophy, mathematics, and ecology. Particular emphasis is given to interactions between populations of organisms. The book also extends into a study of multiple use as perceived by the forester, the ecologist, and the conservationist with a view to influencing the decision-making processes of the forest manager.

The first third of the book explores the science of science and expounds the philosophical and mathematical concepts on which the remainder of the text is based. For the uninitiated this section provides a major hurdle which, when crossed, leads into a thought-provoking discussion on the variety of types of interaction between populations. The author bases much of his discussion of interaction on so-called Haskellian co-ordinates – a method of displaying interaction using polar co-ordinates. The past emphasis on one type of interaction (competition) is exposed, as is the general failure to ignore the performance of the individual species living alone. One would have liked to see a deeper analysis of this methodology since a number of basic questions are not addressed. For example, what are the implications of different units of measuring the quantity of each species, the advantages and disadvantages of the various measures of interaction intensity, and the possibilities of a strictly mathematical n-dimensional analysis.

An underlying reason for the book is the author's belief that foresters need to change their view of the world in which they exercise managerial skills. For many, including foresters, it will not prove easy reading. An unfamiliar jargon and a number of typographical errors in mathematical expressions both increase the difficulty. The "research questions" at the end of early chapters draw heavily on unfamiliar skills and would have benefited from some worked examples. The more pedantic English reader will complain at the numerous examples of current American usage. However, for the determined reader the book provides a variety of stimulating ideas which will reward the effort of reading and, if necessary, re-reading.

H. A. I. Madgwick