

AWARDS

Prince and Princess of Wales Science Award Scheme

Closing dates for applications – August 31; February 28.

Application forms:

Executive Officer,

Royal Society of New Zealand,

Private Bag, Wellington.

Maxwell Ralph Jacob Award

Closing date for applications – October 31.

Details and applications:

The Executive Secretary,

Australian Academy of Science,

G.P.O. Box 783,

Canberra, ACT 2601.

T.W. Adams Postgraduate Scholarships in Forestry and Owen Browning Postgraduate Trust Fund in Forestry

Both close for applications on November 1.

Details and applications:

The Registrar,

University of Canterbury,

Christchurch.

NEW INFORMATION

'Forest Ecology'

J.P. Kimmins (1987), Macmillan Publishing Company, New York. 531pp.

In introducing this book the author states that "the management of the forest must be based on the view of the forest as an integral ecological system or ecosystem". The book is written with this very much in mind, and aims to provide forest resource managers with a sound base in ecology.

'Forest Ecology' is divided into three sections. In the first section, human population growth is reviewed and implications for future resource availability discussed. This is followed by an overview of the interactions between humans and forests, and in particular the dependence of humans on forests. The next section, which forms the bulk of the book, covers a range of topics including ecosystem concepts, energy and nutrient cycling, genetics, aspects of the physical environment, population biology, and ecological successions. In the final section, the application of ecological knowledge to forest management is discussed, and includes description and mapping of forests, modelling and the concept of forests as renewable resources.

The book is well illustrated with tables and figures, together with a scattering of photographs. It is pleasingly laid out and the writing style makes for easy reading. At the end glossaries of scientific plant and animal names are included.

As a text for future foresters this book has a number of advantages over other ecological texts, especially in that it deals primarily with forest examples. It is also very useful in that it continually ties the

ecological information back to management issues. The discussion of animals and plants is also of value, but there is only limited coverage of plant-animal interactions. The final section, applying ecological principles to forest resource management, is good, although some would argue that this should have been larger.

BOOK REVIEWS

'Forest Ecology' is, however, weak in many aspects, especially in that it does not provide a comprehensive overview of all aspects of forest ecology despite the author's claim in the preface. Rather, it concentrates on the more traditional areas of ecology; ecosystem energy and nutrient cycling, and effects of physical factors such as light, temperature and wind on tree growth. Although these sections are well covered, important topics such as evolution, population ecology and forest dynamics are given only limited attention. The author does argue in the preface that foresters manage ecosystems rather than "individual trees, tree populations, or even tree-dominated communities". However, foresters cannot ignore these aspects of ecology, and I was particularly disappointed to see that there was very little coverage of the large

amount of research undertaken in recent years on forest dynamics. Another important topic that receives little coverage is forest conservation. I find this very disappointing as I was always led to believe that foresters were conservationists.

This book is also weakened because of its bias towards the Northern Hemisphere, and in particular North American examples, which limits its usefulness outside North America. Both Southern Hemisphere and tropical examples are few, despite a large literature on forest ecology in these areas.

At the end of the day, a reviewer must come back to asking the question: "What does this book contribute to an already grossly overloaded literature?" I am afraid that from a general ecological viewpoint the answer is very little. There are few new ideas presented in this book and the approach taken is very traditional. However, as a text for future forest managers in North America the book will be of some value and certainly updates the earlier text of the same name by Spurr and Barnes.

I think that the value of this book in New Zealand is, however, limited. It will be useful to have on the library shelf, as some of its chapters are good reference sources, but I do not feel that it is an ideal text book for New Zealand forest ecology. I certainly hope that our up-and-coming foresters are exposed to a much broader perspective of forest ecology than is presented in this book.

David A. Norton,
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University of Canterbury