

## Fashioning Australia's Forests

**Dargavel J. (1995) *Fashioning Australia's Forests*, Oxford University Press, Melbourne.**

It is rather too easy for New Zealanders looking across 'the ditch' to effect a superior attitude when it comes to forest history, reflecting the prevalence of forests as a 'natural' vegetation type in New Zealand and the significance of spars and mast gathering in the early contact period, the importance of the colonial timber industry in the nineteenth century, the boldness of State and private sector afforestation in the 1920s and 1930s and the increasing contribution of forest products to the export profile of the country. John Dargavel's book is a timely reminder that such a view is flawed. Not only does he recover Australia's forest economy (using the term in its widest sense) but he also offers a theoretically informed account that is overlain by a carefully-crafted narrative.

The volume is most attractively produced and a tribute to the publishers and the author. In ten chapters, Dargavel covers Australia's forest from the mid 19th century to the present and concludes with a 'prospects' chapter looking towards the next century.

The volume is notable on several scores. Firstly, it continues a cycle of forest history authorship from pioneering statements by trained foresters (e.g. Fernow's *History of Forestry* dating back to 1907) giving way to a range of disciplinary studies typically from the humanities and social sciences, and more latterly a further generation of studies by foresters. Peter McKelvey acknowledged such a sequence in the preface of his *Steeplands Forests* published in 1995 (p 9) noting also that "perhaps one indication of a [Forestry] technology having attained a measure of maturity is when it becomes of interest to historians, and that has happened to New Zealand forestry". McKelvey's most recent volume and Dargavel's demonstrate, however, that foresters continue to occupy a crucial place in the writing of forest history.

Dargavel draws together the insights of two decades' work on the structure of forestry to provide a theoretically informed account, freely written and sharply focused. This enables him to

encompass the timber industry, forest management and environmentalists' concerns, the private sector, the State and NGOs in the past and in the present. His use of forest management regimes also enables him to transcend the difficulties that Australia's federal system poses for forest historians, which tends to result in separate narratives for each State (see, for example, Les Carron's *A History of Forestry in Australia*).

Dargavel describes a forest resource management regime as those sets of social and political relationships "whose purpose is to manage people in their use of environmental resources". He observes that "the structure of rights and duties which characterises the relationships between individuals or between individuals and the State, varies between resources ... and that the nature of the regime determines how the resources are used and hence how they are used, and hence how they are spatially and environmentally fashioned". This framework underpins his account. Dargavel's own comparative work on British Columbia and Tasmania and this reviewer's understanding of the New Zealand scene suggests that as a framework it would also serve as a starting point for reassessing and re-interpreting New Zealand's forest history.

The strength of Dargavel's analysis is that he is able to address with alacrity the past and present forestry scenes. His discussion of what sustainable development will mean in the context of economy, industry, people and State as well as environment in the future is correspondingly pertinent and constructive. In this respect John Dargavel has done those with an interest in New Zealand's forest history a real service in terms of providing an exemplary model for future efforts on this side of the Tasman. This is a happy coincidence in view of the moves currently underway to discuss an appropriate organisational footing for forest history in New Zealand.

**Michael Roche  
Massey University**

## Modelling Forest Growth and Yield

**Modelling Forest Growth and Yield: applications to mixed tropical forest by Jerome K. Vanclay. Published by CAB International, 1994. ISBN 0851989136.**

This book is an important one for New Zealand foresters and any others who are interested in objectively quantifying the growth and yield of mixed forests. Our

performance in this regard needs to be substantially improved, particularly now that legislated requirements for assessing sustainability have to be met.

Dr Vanclay is to be congratulated on making a most worthy early attempt to fill a major gap in forestry technology. But he himself acknowledges that he has been handicapped by a dearth of tropical examples and a limited amount of temperate mixed forest experience, in contrast to the many more publications in recent years on modelling growth of even-aged, single-species stands.

New Zealand is one of many countries that has neglected proper growth estimation of its native forests as part of routine management inventories, preferring instead to rely on the overly simplistic and mistaken assumption that current annual or periodic growth in stands of natural forest exactly matches regular mortality. Researchers such as, for example, Frank Hutchinson, Dudley Franklin, John Wardle and Mark Smale have all shown that a wide range of measured growth occurs in our native stands, while misconceptions even among researchers about how to analyse growth measurements correctly still persist, as can be seen from perusal of an article by Glenn Stewart in a recent issue of this journal. But, the crucial issue here is how New Zealand practitioners such as Timberlands West Coast and forest owners of mixed forests under sustainable forest management plans, together with their consultants, can adapt suitable methodology from the useful examples in Dr Vanclay's book to suit individual situations in this country. Luckily, he has chosen to review a wide range of options rather than prescribe a narrow set of procedures, but that, in turn, necessitates our careful study, evaluation and adaptation rather than being provided with a source of cookbook dogma.

The book comprises 13 chapters, 11 of which are directed at tree and stand level analysis, while only chapters 12 and 13 refer to that at the forest level. On two counts, therefore, the implied emphasis on forest growth and tropical examples is a little misleading. In reality, much of the book's text and its useful list of references deal with even-aged and temperate mixed species stands. Nevertheless, it is clear from Dr Vanclay's review of growth modelling methodology that there is an urgent need for forestry researchers and analysts to come to grips with this gap in our technology. The extent to which he capably demonstrates this lack, is the book's strength.

The book also contains a great deal of helpful practical advice, from which various types of readers can benefit. But that very feature creates added difficulties,