

Book reviews

Monarchs of the Woods

The Story of Hoop Pine in Queensland from Settlement to the Present

Peter Holzworth

Published by Queensland Department of Primary Industries,
GPO Box 46, Brisbane, Queensland, 4001.
110 pages, b. and w. photos.

The author joined the then Queensland Forestry Department in the late 1950s, graduating from the Australian Forestry School in 1964. He subsequently managed various forestry districts in Queensland, retiring early to become a consultant. He was commissioned to write this book by the Department of Primary Industries as part of the Forestry Department's centenary in the year 2000.

Irrespective of the area of forest relative to its total area in the case of each of the several States of Australia, every State was blessed with at least one noteworthy tree, whether by way of aesthetic appearance, the usefulness of its wood or some other particular quality. Because of its wide range of forest types, Queensland has several noteworthy trees, but most people would agree, I think, that hoop pine (*Araucaria cunninghamii*) would rank first among them.

Though no doubt well known to the indigenous people due to its association with bunya pine (*Araucaria bidwillii*) which was a rich source of 'nuts' to them, hoop pine was first 'found' in Queensland in 1823 by Surveyor John Oxley (sent by Governor Brisbane to look for possible sites for convict settlements in southern Queensland) under the guidance up the Brisbane River of Pamphlett and Finnegan, survivors on Bribie Island of a boat trip purportedly sent from Sydney to get a supply of red cedar from the south, and blown far north by a southerly gale. Oxley was impressed on his first visit by the 'timber of great magnitude (including) a magnificent species of pine...in great abundance (which) if it should prove of good quality were of a scantling sufficient for the topmasts of large ships' (a natural interest in the circumstances). The following year he visited the area again accompanied by the explorer and botanist Alan Cunningham who identified it as of the genus *Araucaria*, the species being subsequently registered botanically in his name. He recorded it in his diary as 'of magnificent stature, the "Monarch of these Woods"'. As Gary Bacon describes it in a Foreword, and echoes the sentiment in a poetic epilogue, it was a 'jewel tree' for Queensland that 'shaped and influenced the fortunes of people, communities and industries'.

Oxley's enthusiastic reports of Moreton Bay as a place for a penal settlement led shortly to the establishment of one there on the site of present Brisbane, and twenty years later it became a free settlement. Rich with other species of the sub-temperate rainforests and coastal hardwoods, for local use and export south, southeast Queensland prospered – but at such a cost to the

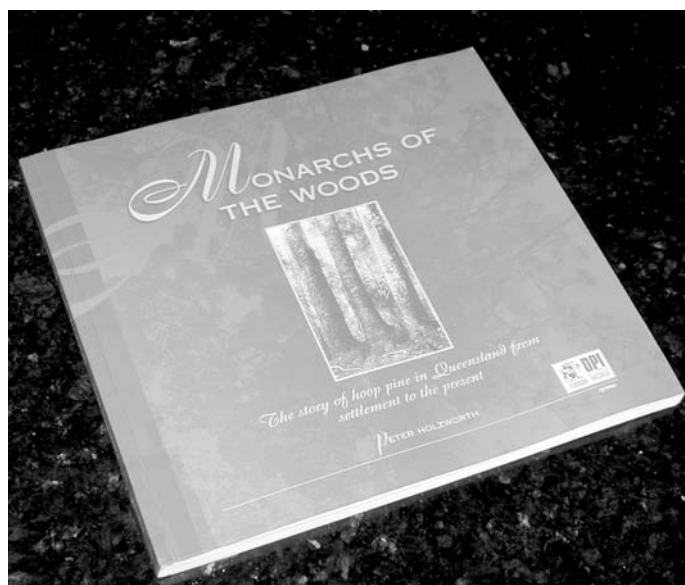
forests that by the end of the century it was clear better control was essential. Thus was born, at the beginning of the last century, the first forestry authority whose dedicated involvement with perpetuating 'the monarch of the woods' is so clearly and interestingly chronicled in this book.

The text is admirably organised and the 'story' is easy to read, supported as it is by the well chosen photographs mainly from the archives of the Forestry Department library.

Queensland foresters will enjoy a more 'intimate' reading than other foresters to whom the story is more detached. As a Queensland forestry cadet of 1938 vintage 'brought up' on hoop pine, this reviewer relived many of the 'events' and ached with nostalgia for 'those days'. But the writing of this history of hoop pine in Queensland is so attractively done, and the nature of it such, that I am sure any foresters, Australian or otherwise, would enjoy it.

Highly recommended.

L.T. Carron
Canberra



Book reviews

Diseases and Pathogens of Eucalypts

P. J. Keane, G. A. Kile, F. D. Podger and B. N. Brown (editors)
CSIRO Publishing 2000. xxii plus 565 pages, colour plates. \$150.

This comprehensive tome is the third in a trilogy of significant books on eucalypts published recently by CSIRO – the others being *Nutrition of Eucalypts* (Attiwill and Adams 1996) and *Ecology and Silviculture of Eucalyptus Forests* (Florence 1996) which I reviewed in *Australian Forest Grower* 19 (4) 1996/97. The book adds to the growing body of modern literature on this important group of forest trees – one can no longer refer to them as the genus *Eucalyptus* L'Heritier if one wishes to be all embracing as well as taxonomically and politically correct but at least the commonly understood epithet eucalypt has survived and covers the three genera *Angophora*, *Corymbia* and *Eucalyptus*. The authors contributing to the book under review have covered the eucalypts in this modern sense.

The book is more embracing than its title would suggest and contains much useful material on eucalypts, providing context and background to the more specific subject matter of diseases and pathogens. There are three Sections; the first 101 pages provide a comprehensive summary of what makes the eucalypts and the eucalypt forest tick – their economic and social importance, phylogeny, adaptation and genetic diversity, growth and silviculture, ecology, physiology and mycorrhizas. The editors have drawn together a powerful team to prepare these well integrated chapters with contributions by Turnbull, Potts, Pederick, Florence, Ashton, Beadle and Chilvers, all acknowledged experts in their own right. Having Ross Florence prepare a synopsis of his larger book on ecology and silviculture provides a nice link to the earlier work (cited above). As a potted text on eucalypts the general reader can't do better than refer to this introductory section. Professional foresters and biologists will also find this a good read. I particularly liked the chapters by Chris Beadle in which he related eucalypt physiology to disease and Graham Chilvers' compendium on eucalypt mycorrhizas; both syntheses bring together much useful material scattered through the literature.

The second section is the major part of the book and is a detailed treatise on the biology of diseases affecting all plant parts, covering fungi, viruses, phytoplasmas, bacteria and nematodes. Mistletoes, abiotic stress and nutrient deficiency are not forgotten. The latter chapter prepared by Peter Snowdon links back to the Attiwill and Adams book on nutrition previously published by CSIRO. Unfortunately biodegradation of wood in service is not covered in this book – one has to stop somewhere – but there is a comprehensive treatment of woody root, stem and butt rots. Ken Old has prepared a masterly chapter on the etiology of well known forest diebacks and this provides an excellent lead into the last section on disease management. Again the editors have been assiduous in seeking out experts to write the 11 chapters in this section; there are some 17 contributors including four from overseas, reflecting the importance of eucalypts as exotics and interest in their pathology. Seven of the chapters are collaborative efforts, four with Australian and overseas collaborators from countries with significant eucalypt plantings (Brasil, South Africa and India) indicating that the international network for eucalypt pathology is vigorous and inclusive. The chapter including seed-borne pathogens by Bruce Brown gives us a timely reminder of the

importance of quarantine in the movement of germplasm as does that on foliage diseases by Robert Park, Philip Keane, Michael Wingfield and Pedro Crous which highlights the dangers to eucalypts as exotics from endemic fungi. Eucalypt rust (guava rust, *Puccinia psidii*) is now a major problem in Brasil and represents a major hazard to eucalypts planted elsewhere as an exotic and to native forests should it be introduced to Australia.

The final section of the book deals with the management of eucalypt diseases in five chapters prepared by 13 authors, six from overseas; the latter have combined forces to prepare an excellent exposition on diseases of eucalypt plantations drawing on their experience in Brasil, South Africa, India and New Zealand. With the movement to extensive monoculture eucalypt plantations in southern Australia, often on marginal sites or outside the natural range of target species, and given the background of a plethora of endemic diseases with potential for increased virulence in trees under stress, this chapter provides Australian foresters and other land managers with a timely reminder of some basic principles, reinforced by Jack Simpson and Frank Podger in their essay on options and constraints to disease management. Other chapters deal with native forests in particular with management of *Phytophthora* dieback and *Armillaria* rootrot (Frank Podger and Philip Keane), the special conditions of rehabilitation following bauxite mining (Ian Colquhoun and Peter Elliot) and nursery management (Bruce Brown).

The book is illustrated by a grouped set of colour plates with captions referenced to the appropriate chapters. Colour separation and clarity and brightness of reproduction is very good but many are a little small for their illustrative purpose. A great strength of the book as a reference text is the excellent treatment of the indexes – something lamentably lacking from the previous books. CSIRO has responded to criticism positively in this area. There are comprehensive separate indexes to biota (animals, fungi and other microorganisms, eucalypts and other plants) and a subject index. Each chapter has its bibliography of published work; this spans over 100 years (1881 – 1999) with the vast majority of references within the last 20 years, so the literature back up is very comprehensive and makes the book very up to date.

A nice gesture is the dedication to Geoffrey Marks 1932-1990, highly regarded by his colleagues including the writer, for his work in Victoria as forest pathologist and teacher in the days when keen observation, petri dishes and a microscope were the tools of trade. Geoff would be proud to be associated with this book.

Highly commended as a reference text to practising forest pathologists, eucalypt foresters, researchers, university teachers and students at tertiary level.

Ian Bevege
ACIAR