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BOOK REVIEWS

Acacias of Australia

Simmons, M. 'Acacias of Australia', 1982, Nelson.

Acacia is one of the largest and most widespread genera of Australian plants. 'Acacias of Australia' came to fruition after many years of planning with extensive travel throughout Australia, collecting, photographing and sketching in an effort by the author to make this complex genus more accessible to botanists, laymen and growers.

A special feature of this book is a section devoted to an overview of the genus *Acacia* written by Les Pedley, Assistant Director, Queensland Herbarium, who specialises in the taxonomy of *Acacia*.

One hundred and fifty species are treated individually. The text is adequate and clearly set out and no obvious errors were noted. For each species the scientific name with authority is given, together with common name where one exists, and the meaning of the scientific name is explained. The botanical description with a minimum use of technical terms is given under the sub-headings: distribution (statewide), habit, foliage, flowers, pods, seeds. Notes on special identification features and comments on propagation and cultivation seem useful.

Each species is illustrated by black and white drawings that are both artistic and informative. However, a little more emphasis showing enlarged finer details of some important identification features such as veins (position and numbers), or glands, would greatly assist the user.

The text is supported by 54 excellent colour photographs by John Simmons; these are informative and varied, showing habit and close-up details. Plate 49 is titled *Acacia rivalis*, but the correct identification should be *A. calamifolia*. Cross-referencing of photographs and descriptions would have been an added advantage. The chapter on propagation will interest and assist the grower. A short glossary with a page of illustrations explaining the major characteristics of *Acacia* appears to cover technical terms used.

A simple key to groups is included. This is satisfactory and serves the purpose to group plants with similar characteristics. It is a pity such a fine work did not include a key to all species.

The work includes a section on the naming of plants, which explains and lists the full names and dates of authors pertaining to the species included. The extensive bibliography is invaluable to the reader to stimulate further reading and gain information on *Acacia*. The book concludes with an index to the scientific and common names.

The title appears rather ambiguous with only 150 species treated (approx. 700 species are known to occur in Australia) and perhaps this could have been avoided by adding the word 'some' or the inclusion of an additional list of the remaining *Acacia* species grouped together with similar characteristics for each State. We hope Marion Simmons will continue the work and cover a wider range of species at a later date.

'Acacias of Australia' is visually attractive, beautifully produced and a clearly set out publication. It is obvious that a great deal of care, time and effort was spent and the author and publisher are to be congratulated on the result.

Simmons, Marion H. 1982. 'Acacias of Australia', pp. 325, figures 150, colour plates 54. (Published by T. Nelson, Melbourne). Hard-bound. \$29.95.

David J.E. Whibley
State Herbarium of South Australia

'Native trees and shrubs of south eastern Australia'

Costermans, L., (1981), Rigby.

This excellent book, which embraces an area stretching from the Flinders and Mt Lofty Ranges in South Australia, across Victoria and southern New South Wales to the N.S.W. south coast, describes approximately 900 species of plant.

The book sets out to "interpret for popular usage, much of the accumulated scientific data and findings relevant to the larger plants in the area". This I believe it does very well. All indigenous species of trees and shrubs taller than 1 metre are treated; also included are some species which have become naturalised and are often mistakenly thought to be native e.g. *Coprosma repens* from New Zealand, *Olea europaea* introduced from Europe, and *Chrysanthemoides monilifera* introduced from South Africa.

In Chapter 2, 'The Land and its Vegetation', an excellent and concise description is given of the importance of geological and climatic factors on the formation of vegetation. Costermans wisely restricts himself to a few comments about the origin and distribution of the Australian flora, and his statements on succession and ecosystem development are easily read and informative. For further information the reader is referred to selected literature on the various topics covered.

In Chapter 3, 'Some Places of Special Interest', nine specific localities including the Grampians and Wilsons Promontory in Victoria are briefly dealt with, giving information of both an historical and ecological nature. As is evident elsewhere in the book photography is excellent and whets the reader's appetite for further investigation.

In Chapter 4 the region is divided into what Costermans calls "ecological—geographical areas", comprising eight in all. Although botanical keys are omitted the excellent line drawings are clear and accurate, making identification of the species in question fairly certain.

At this point the user is referred to a full description of the species in Chapter 5. These descriptions vary from a minimum of approximately 50 words to more than 200 depending on species and variation within the taxon. Excellent line drawings together with a distribution map complete the description.

Chapter 6 presents a few comments on the major families and genera mentioned in the book. These comments form a useful adjunct to the text itself and would make interesting reading for any enthusiastic amateur botanist. The book is completed by a short but comprehensive glossary, a list of abbreviations used in the book and two indices, one botanical, the other of common names.

Only a few criticisms can be levelled at this otherwise excellent work. Costermans uses an estimate of 14,000 species in Australia while most workers today would place this figure somewhere between 17,000 and 20,000. Some readers may take issue with the statement on p. 14 referring to the use of fire by the aborigines: "The Aborigines apparently brought about little change. They did burn the bush periodically to regenerate undergrowth but fire is a natural part of ecological processes. Essentially the Aborigines survival depended on living in harmony with Nature".

Leaving aside these two small criticisms I believe that the aim of the author, to make the book useful at any time of the year, not only during flowering periods, and to be self-explanatory in the hands of anyone, with or without training, prepared to devote effort to following up field observations, is achieved. The photography throughout, both colour and black and white, is excellent and the line drawings extremely accurate. This volume will form a useful reference tool in any library and can be readily recommended.

Costermans, L. (1981). 'Native Trees and Shrubs of South Eastern Australia,' pp. 422, more than 300 colour photographs and 160 in black and white line drawings. (Published by Rigby, Adelaide). Hard-bound, \$29.95.

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Two books on the flora of New South Wales

Cunningham, G.M. et al. 'Plants of western New South Wales', 1982,
N.S.W. Government Printer.

Jacobs, S.W.L. & Pickard, J. 'Plants of New South Wales', 1981,
N.S.W. Government Printer.

The latest of the floras to deal with at least a part of New South Wales is a most impressive volume by G.M. Cunningham, W.E. Mulham, P.L. Milthorpe and J.H. Leigh. Aimed "particularly at the landholders" of western New South Wales it is more popular in approach than most floras, but will be welcomed by others including many professional botanists. Of particular value will be the outstanding colour photographs of the great majority of the approximately 2,000 vascular plant species included. Exceptionally informative notes, especially of an ecological nature, were made possible by the authors' considerable first hand field knowledge. The opportunities to include such notes are too rarely available to writers of floras, although most would appreciate the value in having them.

The presentation and printing are very good, but I find it difficult to refer from the text of a species to its associated photograph. This is partly because only the vernacular name is used as a caption, partly because it is printed in small lower case—very different from the large bold capitals used in the headings to the text—and partly because it is sometimes above and sometimes below the plate.

Reflecting to some extent its differences in emphasis from most other floras, several technical decisions in the book will not find favour with many botanists. As the authors predicted in their introduction many users will, for example, regret the absence of keys. The apparent fabrication and "standardisation" of "common names" will also be criticised (as occurred when J.H. Willis adopted the Victorian Naturalists vernacular names in his 'Handbook'), as will the use of lower case for their initial letters, even when used as captions. For example, "paterson's curse" will look strange to many. In writing descriptions for the lay public, terminology is a major problem. However, who has the courage and knowledge to tackle descriptions of details of grass inflorescences yet prefers to use the word "seeds" for lemmas, "husks" for glumes or "flowers" for spikelets? Numerous alternative "common names" are recorded but users attempting to look up species by botanical names other than those adopted in the book will fail to find any scientific synonyms.

In their introduction the authors emphasise the part played by S.W.L. Jacobs and J. Pickard's checklist of the plants of New South Wales. They used it as a guide to what species are naturalised, to the "form of presentation" of authors of plant names and to distribution outside their own area. Both works are dated 1981 (although the "Plants of western N.S.W." did not actually appear until 1982) and the reader might be excused for assuming that the names adopted would also have been checked against the checklist. This was unfortunately, at least in part, not the case. Perhaps the most serious omission which use of the checklist could have avoided, was the failure to change *Bassia* (of which 30 species are described in the flora) to *Sclerolaena* or *Dissocarpus*, a change widely

accepted since A.J. Scott's publication of 1978. It could also have avoided adoption of the unpublished combination *Bulbinopsis alata* for a species validly published in *Bulbine* by H. Baijnath, in which genus most recent authors have agreed to place the taxon.

The checklist 'Plants of New South Wales' is also, in its own way, a lavish publication, perhaps in this case excessively so. This is the first comprehensive record of the seed plants of New South Wales in 65 years and, as such, fills a need felt, not only by workers in that State, but by others especially those involved in the floras of adjoining areas. The occurrence of each taxon (approximately 6,000 species) on Lord Howe Island and in 13 mainland N.S.W. regions is recorded. Although the occurrence of species in other States and overseas is also indicated, this information is, as the authors indicate, "not necessarily definitive". In fact a check of South Australian monocotyledons, for which a reasonable list was available to the authors, suggests that it is so bad as to have been better omitted.

Additional information is limited to whether or not the taxon is native (indicated not only for the State as a whole but also for each of the 14 regions) and the inclusion of a substantial number of synonyms. The families, genera and species recognised are arranged alphabetically, and the index is, therefore, justifiably restricted to family and generic names whether adopted or as synonyms. It is not stated on which system the family concepts are based. Perhaps some freedom was allowed the 15 contributors in the groups for which they were responsible.

Except for the interstate distribution data this is, in so far as I have been able to check, a very reliable and valuable addition to the literature on the Australian flora.

- Cunningham, G.M., Mulham, W.E., Milthorpe, P.L. & Leigh, J.H. 1982 (dated 1981). 'Plants of western New South Wales', pp. 766, figures 67, colour plates approximately 1490, 1 map (endpapers). (Published by the N.S.W. Government Printing Office in association with the Soil Conservation Service of N.S.W., Sydney). Hard-bound.
- Jacobs, S.W.L. & Pickard, J. 1981. 'Plants of New South Wales. A census of the cyads, conifers and angiosperms', pp. 226, 1 map (endpapers). (Published by D. West, Government Printer, Sydney). Hard-bound. \$18.00.

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