

FIELD GUIDE TO EUCALYPTS. VOLUME 1. SOUTH-EASTERN AUSTRALIA, by M. I. H. Brooker and D. A. Kleinig. 288 pp. Published by Inkata Press, Melbourne and Sydney, 1983. \$A36.

For those keen on identifying eucalypts, the arrival of this book is undoubtedly a major event. Here we have a guide to all the 242 species (including subspecies and varieties) occurring in southern Queensland, New South Wales, Victoria, south-eastern South Australia, and Tasmania. It just about covers all eucalypts likely to be seen in New Zealand except the Western Australian ones such as *Eucalyptus ficifolia*, *E. calophylla*, and *E. diversicolor*, and from Queensland *E. citriodora*.

Ian Brooker, the brilliant CSIRO eucalypt taxonomist, and David Kleinig, the professional seed collector and expert photographer, have combined to produce a remarkably fine book. After a brief introduction pointing out the dominance of eucalypts in most Australian landscapes, and sketching the history of the genus *Eucalyptus*, the book falls into three major sections. The first is a very valuable discussion of the botanical features of eucalypts, with beautifully illustrated descriptions of habit, lignotubers, bark, seed, leaves, inflorescences, flower buds, and fruit. I would advise careful study of this section, otherwise it will be impossible to obtain maximum benefit from the keys and descriptions that follow.

Seven regional dichotomous keys provide the formal basis for identifying the species. A wide choice of characters, including anther structure, is employed in the keys. These are the best eucalypt keys I have tried, though they demand patience, care, considerable experience, and the availability of good specimens. Like most keys, they will not be foolproof, and the New Zealand user will be in immediate trouble figuring out which regional key to try.

The body of the book consists of the species digests — a succinct botanical description of each eucalypt accompanied by a distribution map and colour photographs of habit, flower buds, fruit, and bark. The format of the digests is not unlike that of the ever-popular *Forest Trees of Australia* and associated leaflet series. However, the *Field Guide* does not cover the ecology of the species except superficially in the notes on distribution, and there are no comments on uses or cultivation. Although eucalypt classification is not discussed (an omission that disappointed and

surprised me) the keys and digests more or less follow the established order of species in Pryor and Johnson's (1971) classification. There is no explicit description of the species groups such as "stringybarks", "ironbarks", "red gums", "boxes", or "ashes".

The colour photographs are the main feature of the book, though some of the whole-tree pictures on my copy are blurry e.g., *E. regnans* (41), *E. rossii* (87), *E. resinifera* (95), *E. dalrympleana* (189). These habitat photographs are primarily intended to show the size and appearance of the species, but there are bonuses in some marvellous views of the Australian landscape e.g., *E. youmanii* (19), *E. nova-anglica* (201), *E. polyanthemus* (229). The photographs of the buds and fruits are very well done and for many readers will be the first step in identification.

The digests are most authoritative and botanically accurate. There are just a few minor technical queries. *E. blakelyi* (130) is said to occur in colder parts of the La Trobe Valley in Victoria, but this is not shown on the distribution map. In cultivated specimens of *E. triflora* (54) in New Zealand, the inflorescences are often paired in the leaf axils as in *E. regnans* and *E. fastigata*. The bark of *E. blaxlandii* (22) is not always rough throughout but often decorticates from the upper branches to give a smooth "white-topped" appearance.

But can eucalypts in New Zealand be reliably identified from the digests? Greatest difficulty and confusion will be met with the stringybarks (15-34) and scribbly gums (83-87). To give one instance, *E. capitellata* (24) and *E. agglomerata* (25) are virtually indistinguishable from the illustrations and descriptions of the digests. This is not a criticism of the book as species in these groups are notoriously ill-defined.

The main botanical virtue of the book is that all the south-eastern species from the smallest shrubs (like *E. vernicosa* and *E. rupicola*) to the tallest trees are described and illustrated in one volume for the first time, by authors who know the species well. Add to that the fine colour work, the clean text (totally free of typographical errors), attractive layout, and good quality paper, and we have a volume well worth its price.

Volume 2, Western Australia, and Volume 3, Northern Australia, are in preparation.