

FLORA OF NEW ZEALAND: Vol 1. By H. H. Allan, 1085 p. + *liv.*,
40 text-figs. Wellington: Government Printer, 1961. £5 5s. 0d.

Although the revision of the New Zealand flora has yet to be completed, we now have in Volume 1 an up-to-date presentation of all the indigenous vascular plants except the monocotyledons. Externally this book is compact, sturdy, and unassuming. Internally it is a quintessence of New Zealand taxonomic botany. One may liken it to a mighty tree: Linnaeus sowed the seed; Banks and Solander tended the young seedling; others recorded the development of the thrifty sapling; Cheeseman presented us with the tree; and now H. H. Allan, with his valiant helpers, shows us how the tree has grown in the last 36 years, and how vigorously it flourishes to-day. This is a view Dr Allan himself would have applauded, for a Flora can never be a complete and final description of the plants of a region. Rather should it mark a stage in our incessant endeavours to comprehend the world about us. It should distil all relevant existing knowledge and point the way to further advances.

The present volume achieves that ideal. The keys, descriptions and notes are masterly; words and phrases are used with admirable economy and precision. There are concise statements about the nomenclatural history of New Zealand plants, and the abundant references to earlier published works are invaluable as a guide to more detailed information. There are 40 text figures by Miss Nancy M. Adams. These are of high quality, and greatly clarify several aspects of variation not easily described in words, e.g. indusia of ferns, seeds of podocarps, leaves of *Hoheria*, and stipules of *Coprosma*. There are also four maps, which will assist the student who is unfamiliar with the New Zealand region; useful short statements on climate, topography and soil; a list of over 450 authors whose names appear in abbreviations throughout the text; Latin diagnoses of new taxa; a very full glossary; and an excellent index.

Perhaps the most striking thing about the book is the wealth of information contained in the notes, usually under the headings "Polymorphy", "Heteroblasty" and "Hybridism". Here one finds sometimes only a brief comment, but at other times a miniature essay on the evolutionary status of a group. This is information which will deter the faint-hearted student from ever becoming a taxonomist, but will certainly have a most stimulative effect on research. As examples one may quote:

(p. 112) *Dacrydium*

Further critical work is required on both *D. intermedium* and *D. colensoi*, especially as to the existence of vars with distinct geographical ranges.

(p. 157) *Ranunculus*

Many years of intensive study would be necessary satisfactorily to map the maze that is *R. lappaceus*.

(p. 318) *Pittosporum*

We have little or no exact knowledge of how far the differences found are due to the existence of varieties, how far to hybridism, how far to

habitat modifications, how far to "geographic races". We have a number of ill-resolved complex groups . . .

The casual student will no doubt be annoyed that several of the names he used to know have been superseded. This was inevitable, partly because, as Dr Allan once said, "we have to stick to the rules, because we made them ourselves", and partly because taxonomy is an expanding and advancing science. We shall have to take all these changes in our stride. Some of the more notable ones, among the woody plants, are the reduction of *Nothofagus cliffortioides* to a variety of *N. solandri*; the transfer of *Leucopogon* spp. to *Cyathodes*; of *Suttonia* spp. to *Myrsine*; of *Myrtus* spp. to *Lophomyrtus* and *Neomyrtus*; and of *Olea* spp. to *Gymnelaea*. The species formerly placed under *Nothopanax* are now placed in a new genus, *Neopanax*. Some groups, e.g. *Carmichaelia*, *Dracophyllum* and *Hebe*, have undergone rather extensive rearrangement since 1925, and many unfamiliar names, especially of newly described species and varieties, now appear. Special attention should be drawn to the Supplementary Notes, pp. 1007-34, which include some important amendments to the text.

Apart from an error on p. 515, which makes the fruit of *Cyathodes juniperina* ten times as big as it should be, only three trivial misprints were noted in this review. This is most gratifying; it means that one can place great faith in the accuracy of the spelling when this is really important. Thus, for example, we may rest assured that "*solandri*" is not a misprint for "*solanderi*", and that the specific epithet in "*Beilschmiedia tarairi*" is correctly spelt. Dr Allan was a great scholar, and carefully considered all such matters; the printer and the proof correctors have not failed him. The result of their labours is a typographic triumph. It is a pity, however, that the text is printed on such thin paper. It is not as easy as it might have been to find a wanted page, and unless one is careful the leaves are liable to tear. Paper of the kind used for the latest British Flora would have been better, without making the volume too stout.

All in all, this is an inspired and inspiring book. Those who may cavil at its price should consider the scientific effort which went into each page, and then calculate the cost at some paltry rate, say sixpence per page. They should then rejoice that recorded knowledge can be bought so cheaply. It is a book that will find an honoured place in botanical literature the world over, and New Zealand may take great pride in having produced and supported the scientists whose work it is. Miss L. B. Moore deserves the highest praise, for the way she shouldered the terrifying responsibility of completing the work after Dr Allan died. Confronted with *Hebe*, the bravest of botanists might have faltered, but she saw it through to the end. Of the principal author one may say with conviction: he has joined the immortals.

- M.H.B.