Notes RBG Edinb. 43(3):545 (1986)

Book Review

New Zealand Lichens. The richness and luxuriance of the lichen flora in New Zealand has been well appreciated by cryptogamic botanists for over 100 years, but only in the last 15 years of modern lichenological renaissance has it received the detailed investigations that it deserves. Much of this resurgence of interest has centred around David Galloway, the author of this Flora*, which is the first of its kind to be published this century for a S Hemisphere country. Being a New Zealander, Dr Galloway has collected widely in the country and has an obvious 'feel' and love for his native flora. This background, together with his herbarium studies based at the British Museum (Natural History) in London have enabled him to make the 'best of both worlds'—to great effect! The success of this Flora project, completed within 10 years, has also depended on a wide range of willing support and co-operation from many institutions, collectors and taxonomists, as is reflected by the $3\frac{1}{2}$ pages of acknowledgements!

The book begins with a lengthy preface followed by: a history of lichenological exploration in New Zealand; a list of collectors with herbarium locations; a chronologically ordered list of references pertaining to the taxonomy of New Zealand lichens between 1781–1983; abbreviations and symbols used; a list of authors with their country of origin or scene of work, abbreviations and dates; and a dichotomous key to treated genera. The book closes with a glossary, addendum, and an index to accepted taxa and synonyms.

The main body of the book deals with 966 taxa in 210 genera and, owing to the present state flux at the higher levels of fungal (including lichens) classification, an alphabetical arrangement is thankfully employed. Each genus is provided with a description plus pertinent notes and references to such matters as number of species, world distribution, other treatments, and state of the art in taxonomic understanding; a key to species follows if more than one is treated. Descriptions of species are based on the author's personal examination of New Zealand material, and often include chemical characters based on spot-tests and TLC techniques that are so important in modern lichen taxonomy. Each description is supplemented by a biogeographical designation (10 elements being recognized), together with short notes on habitat and distribution within New Zealand. Dr Galloway has endeavoured wherever possible to examine the type specimen of species originally described from New Zealand; when successful, the types are cited and lectotypifications are made where necessary.

Apart from the maps on the inside covers, no line drawings are provided, and the colour plates are disappointing, there being much unwarranted blank space. I detected a few small errors of fact and inconsistencies, but they by no means detract from the value of this Flora.

Dr Galloway suggests that his Flora covers about 60% of the lichens estimated to occur in New Zealand. For many macrolichen genera this percentage is probably higher, although for most microlichen (crustose) genera the opposite is true. A great deal of collecting and taxonomic work requires to be done on New Zealand lichens, but those working on them could not wish for a better foundation on which to build than this Flora. Indeed, this book is indispensable to lichenologists with interests elsewhere, especially in Australia and S America which have many phytogeographical (and evolutionary) links with New Zealand. In addition, the supporting New Zealand scientific and publishing authorities are to be congratulated for producing this Flora at a price that should not deter even the keen amateur botanist who may wish only occasionally to delve into lichenology.

B. J. Coppins

*Galloway, D. J., *Flora of New Zealand Lichens.* Government Printing Office, Wellington, New Zealand. Pp. i–lxxiii, 1–662, 8 colour plates, 4 maps, case-bound, 28 March 1985. ISBN 0-477-01266-3. NZ $39.95.