

Conservation is a subject that is concerning us all greatly at the present time and this excellent lecture helped to show the positive side of the subject, proving that conservationists are not necessarily the stick-in-the-mud fuddy-duddies that those who oppose them often try to make out.

A.D.P.

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BOOK REVIEW

NEW ZEALAND PLANTS AND THEIR STORY ---- LEONARD COCKAYNE.

Fourth Edition, edited by E.J.Godley.

Dr E.J.Godley, Director of the Botany Division of the D.S.I.R., has performed a very valuable service by producing a new edition of Cockayne's "New Zealand Plants and their Story", 48 years after the publication of the third edition and 41 years after the death of its author. Cockayne was a world leader in the subject of ecology, or the relation of plants to their environment; an accomplishment resulting from the fortunate combination of his natural ability, intense enthusiasm and a most appropriate country to work on. Probably the lack of a formal botanical training contributed rather than otherwise to his success, by saving him from getting bogged down in the laboratory details of taxonomy and leading him into the field where he excelled. And what an opportunity New Zealand provided him! Its extension in latitude, its varied topographical structure from plains to mountains and its climatic variations ranging from very wet to very dry, all in a small compass, make it a paradise for the field botanist.

The work "New Zealand Plants and their Story" was written primarily for the non-scientific reader, nevertheless it is packed with information and is fascinating reading for the amateur and professional botanist alike. It contains sufficient matter on the botanical exploration of New Zealand, on forms of plants and their classification, to provide an adequate frame for its main interest which is contained in successive chapters describing the vegetation of the coastal strip, the forests, scrub and heath, grasslands, high mountains, swamps and bogs and the outlying islands. A valuable chapter describes the changes made by human colonisation on the primitive plant cover and there is a discussion on the effects of glaciation and subsequent return to a temperate climate.

In the present edition, Dr. Godley has dealt gently with Cockayne's text, finding that in spite of the lapse of time, the author's original study was so thorough and accurate that little revision was wanted and apart from a short addition on weeds, questions of fact or interpretation arising from later botanical discovery are covered in a few footnotes. Editing has consisted mainly in bringing botanical names up to date, and in providing

a number of new photographs to cover losses of some of Cockayne's originals and add others appropriate to the text. The book has been handsomely produced by the Government Printer and at three dollars is very good value for money. The proof reading appears to have been careful and the only printer's error I noticed is at the bottom of page 188 where the omission of part of a word leaves an obscurity. A few comments affect the text itself. In his description of the vegetation of Mt. Moechau (p.125), Cockayne used Adams's paper in 1888 Transactions, which gave the height of this peak as 2750 feet, obtained by aneroid as the range had not then been trigged. The height was later found by survey to be 2926 feet, a correction missed by Godley. The full-page picture on p.64, showing Nothofagus solandri forest occupying strips on spurs running down to a river, with mixed rain forest in the intervening valleys, is titled as located in inland Taranaki. Actually it is one of Leo White's aerial views of a reach of the Wanganui River, looking downstream, and readers with access to a canoeist's map can locate it from the Chineika Rapid at a shingle bank in the lower centre of the picture. One of Cockayne's expressions which possibly required emendation occurs on p.84 in dealing with the effects of latitude --- "Confined to the far north are the taraire, the Mangao ..." We in Auckland think of the far north as at least beyond Whangarei, but some of the plants listed range to south of Auckland. On p.79 Godley seems to have slipped in applying a name change to a fern. Cockayne in listing plants generally epiphytic includes Asplenium adiantoides, which Godley has corrected to Asplenium hookerianum, but the latter we know as a ground fern. According to Cheeseman, 1925, the species name falcatum was in common use down to Christensen, 1905, who changed it to adiantoides, which was adopted by Cheeseman in the Manual, but later botanical usage has reverted to falcatum, Miss Crookes, for instance, uses the name Asplenium falcatum with A.adiantoides as a synonym. The Manual, however, also records that Taoul, 1846, listed A.adiantoides as the name of the fern now known as A.hookerianum and this is quoted in Flora 1961 by Allan who ignores Cheeseman's reference. As Godley used Allan for his name changes in ferns and dicots, perhaps we can forgive him but the writer of this note unblushingly confesses to a feeling of great glee when he spotted this slip of Godley's. When we amateurs get bewildered and fed up with frequent name changes, in many cases apparently based on petty whims, it is delightful to find the professional tangling himself up on occasion.

One regret I have is the lack of end paper maps, which could have assisted the text in several ways, not least in following the distribution of plants by latitude. These few complaints, however, do not detract materially from the general excellence of the editing.

In re-reading this work of Cockayne after an interval of nearly 50 years (my previous copy was the second edition, 1919), I noticed a remark on the habits of ferns which raises an intriguing problem. On p.76 of the new edition, in describing the climbing fern Lygodium, Cockayne says (wording unchanged from earlier editions) "As with the leaves of certain other ferns,

so here two different kinds of leaflets may be noted --those which bear spores and those which function as ordinary leaves." Notice the expression "certain" other ferns. Cheeseman (Manual 1925 p.1) in his general description of ferns implies that all ferns have separate fertile and sterile fronds and Allan, 1961, appears to follow suit. From my own limited observations I regard Cockayne as correct as I have seen ferns with spores on all fronds.

A.D.Mead.

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O U T I N G S

CUTTY GRASS TRACK. --- 21st June 1969 ---- K.J.Haydock.

We set off on a cold but fine morning to visit the Cutty Grass Track in the Waitakere Ranges starting at the Scenic Drive end and rejoining the bus on the Anawhata Road. Our first glimpses of the ranges did not look too promising as they were covered in rain clouds but luckily we had only one shower while on the track just before lunch and another as we rejoined the bus.

Before we started off up the track, we learnt that unfortunately Miss M.Crookes was unable to lead us as she was indisposed. In her place, Mr.Mead ably led the party.

At the start of the track there was a Hedycarya arborea with green berries on it and a Podocarpus totara liberally festooned with epiphytes - lichens, mosses, filmy ferns, Earina orchids etc. Scattered throughout the length of the track were P.ferruginous and P.hallii as was Dacrydium cupressinum, ranging from plants a few inches high, through the juvenile shape to adult trees:

Three Olearias were noted as being fairly common, O.rani, O.paniculata and O.furfuracea. Of note was the abundance of Quintinia serrata with leaves varying from a yellowish green through to a deep reddish bronze, even on the same plant. Some were noticed in seed. There were patches of sphagnum moss found on the side of the track. Dianella intermedia still had a few of its blue berries on show which had not fallen.

A short diversion up a side track brought us to a large Agathis australis under which was found a single Dracophyllum latifolium. Hopes were held that Pittosporum kirkii would be found but we were unsuccessful, only P.tenuifolium being noted. Large numbers of Ilex brexioides, which produce such marvellous honey from their flowers, were to be found in bud.