GEOLOGICAL HISTORY OF THE NEW ZEALAND FLORA

Some familiar New Zealand trees no doubt have a long geological history in our region and members and visitors listened with pleasure to an account by Dr. Oliver* of early beginnings of our modern flora. Interest was heightened by rock specimens and illustrations showing some of the more remarkable features of the fossil record. Beginning with earlier floras comprising plants once common and of wide distribution but now extinct, differences in the distributon of land and sea from present day geography were outlined. Floral relationships between regions as far apart as Grahamland in Antarctica, India and Australia might be attributed to an ancient continent which still linked these regions some 160 million years ago, bounded to the north by an ancestral mediterranean sea which then extended far to the east and west and at times over much of the present continent of Europe. Climates were different, apparently with less contrast between tropical and temperate zones, and although many plants of that era ranged widely, a northern and a southern flora were distinguishable. Horsetails, ferns, cycads, ginkgos and conifers formed the forests of this remote period and among the fossil remains of such a vegetation was found, near the Waikato Heads, a rock specimen showing leaves of the earliest known flowering plant.

Fossil floras of Cretaceous and early Tertiary age show the flowering plants becoming increasingly important and, while some of the older genera still survive, modern families make their first appearance. Besides broad-leaved evergreens a group of deciduous trees of the *Fagus* and *Acer* types was represented. Dr. Oliver traced the evolution of a more modern type of vegetation through the middle and late Tertiary and concluded with a thought-provoking discussion of some peculiarities in the present distribution of southern plants. Among the visitors was Dr. I. C. Cookson from Melbourne University, a palaeobotanist, remembered for her work with Dr. Lang on the still more ancient plant fossils of Australia.

W.F.H.

**Presidential Address, February 20, 1950.*

CORYBAS ACONITIFLORUS IN THE ORONGORONGO VALLEY

At the time of writing the article on the orchids of the Wellington district, which appeared in the last Bulletin, I was unaware that Mrs. Sinclair of Heretaunga had collected *Corybas aconitiflorus* (Corysanthes cheesemanii in the Manual) from the Orongorongo Valley in 1938. The plants were found in early June growing under beech trees, and were in flower. This species is easily distinguished from the other *Corybas* species in the district by the almost complete absence of any thread-like parts to the flower, which is hood-shaped, purplish in colour, and about ¼in. diam. Also, it flowers at least a month earlier than any other *Corybas*. The finding of this orchid near Wellington makes an interesting new record, for it has only been seen in three other places outside of North Auckland.

A. P. DRUCE.