EASTBOURNE TO THE MOUTH OF GOLLAN'S VALLEY.

In the opinion of the six who took part in the excursion of March 3rd, the success of the trip was qualified only by the fact that the day was not long enough. It is rather a long walk, but in the sunny autumn weather the going was dry all the way, even when we pushed through waist high Carex virgata that usually has its feet in really wet mud. From the flanking hillocks we got wide views of the stream fringed with raupo or flax, or further down with wide breadths of flowering toetoe. The billy was boiled for lunch in one of the sheltered side valleys, under a grove of karakas. Outsize lianes were a feature here, great woody loops of Tetrapathaea tetrandra with a circumference of 20 inches measured. Has any member a bigger record for the native passion vine, or any other liane?

The valley becomes more and more interesting in its lower reaches, but the great attraction is of course the lake at the bottom. It is possible to walk round the eastern shore to the big shingle bank that cuts it off from the open coast, but our time was up. All we could do was to admire the ducks and black swans, and the wide border of salt meadow plants. Amongst the Leptocarpus, Apium filiforme assumed an unusual almost lianoid habit. Eryngium vesiculosum was most striking, particularly well-grown, and making an effective pattern with its spiky leaves. It decorated the base of the knob of rock at the head of the lake, too, below the appressed Hymenanthera crassifolia and curtains and cushions of Rhagodia nutans. On the very top were wisps of deep sea algae that must have blown up the whole mile length of the lake. A sample of the lake water brought home had a specific gravity of 1·02 indicating a salinity of 3·4%, very little different from sea water.

L.B.Moore.

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HYBRIDISM.

Dr.Newman's lecture on June 18th was too 'meaty' to be abstracted in full. The following outline, based on Dr.Newman's notes, will indicate the scope of the talk.

INTRODUCTION:

New Zealand botanists' interest in hybrids dates from 1870, when Buchanan first recorded the natural hybrid between our Acaena sanguisorbae and the Australian A.ovina. Lotsy's visit in 1925 and the researches of Cockayne and Allan are more recent landmarks.

There are three approaches to hybridism — that of the taxonomist who wants to be able to describe a group so that any member can be identified and spoken of as a member of that group; that of the geneticist who sees a collection of characters which are shuffled and resorted in the process of inheritance, and some of which may be temporarily submerged only to re-appear later; that of the philosopher who wants to know how the groups we call species came into being. All three are intrigued by hybridism.

THE PROBLEM:

There are three distinct concepts to be considered. The first is that the species is a varied group of individuals isolated by certain mechanisms, which may be geographical, climatic, structural or functional. The second idea is that the individual is a group of characters, as a group not necessarily identical with the groups representing other individuals of the same species; so that a species is an inclusive group of characters at least in pairs so that there are at least twice as many characters in the species group as in the individual group. The third concept is that of the hybrid swarm, a varied pattern of groups of characters newly presented to the action of isolating mechanisms for the production of species. This brings us to Lotsy's idea of species as remains of very diverse swarms.

THE CYTOLOGICAL AND GENETICAL BACK-GROUND:

When we speak of hybridism we are implying the fact of inheritance. No enquiry into hybridism can approach to understanding unless there is some background of appreciation of the simpler facts of the outward phenomena of inheritance and their inner basis in the mechanism of the cell.