

## PLANT ANATOMY.

At the meeting on June 21st, the Society had, for the first time, papers dealing with plant anatomy presented to it. Two recent graduates of Victoria College summarized for us the matter of their Honours theses, and brought along also large clear pen and ink diagrams with the aid of which it was easy to visualize the structures described.

Miss J. Osborn's topic was *Hymenocera banksii*, the brown grapeweed or necklace seaweed. Many specimens were handed round for inspection, for example fresh male and female fronds, and weed treated with hot water to reveal the green colour due to chlorophyll, chemically and physiologically similar to that of the green parts of flowering plants.

The general anatomy was described briefly, and the peculiar four-cell growing point was clearly demonstrated. The development of the sex cells was treated in greater detail, and actual fertilization of the egg cell by the sperm was illustrated. Division of the fusion cell and development from it of the new plantlet was followed up to the point where the apical hairs, of which there were as many as four, were being lost.

Mr A. J. D. Barker's account of supplejack (*Rhipogonum scandens*) to us, though he gave reasons for preferring the spelling *Ripogonum*) dealt principally with the development of the ovary.

This genus is one of those separated from the Liliaceae and included by Hutchinson in the family Smilacaceae. The embryo sac development proved to be of the "normal" type, and the chromosomes, which were clearly shown in some of the diagrams of dividing cells, gave a count of 30 for the 2n number. A distinctive and interesting feature was the proliferation of the remnants of the base of the nucellus to form a cushion of tissue, referred to as the postment, and thought to function in the nutrition of the growing endosperm of the rather large seed.

Question-time brought forth commendation of the work, and requests for its publication, rather than enquiries for more information but the prolonged informal discussion centring round the two speakers during supper showed unquestionably that the papers had been appreciated.

## PUBLICATIONS.

### Hitherto Unrecorded Plant Stations.

Mr Healy's outstanding new records, mentioned in our Bulletin No. 2, have now been formally published, along with others both native and introduced, in the Transactions of the Royal Society of New Zealand, volume 72. Interesting species noted recently near Wellington City include *Gymnogramme leptophylla*, an annual fern, *Coryvolvulus erubescens*, and *Clematis aciculate*.

### The Botany of Auckland. by Arnold Wall and Lucy M. Grenwell.

The second edition of this popular booklet comprises some 50 pages. It is profusely and well illustrated, and the cover carries an attractive colour plate of Kowhai.

The scope is indicated by the Chapter headings:— Historical Outline; Coastal cliffs; Vegetation of the dunes; Rain-Forest of the Waitakere Range; Manuka Scrub; Native Grasses; Grafton Gully; Lava-field of Mt Wellington; Rangitoto, Island of Ferns and Flowers; Our Ferns; Useful Native Plants; Catalogue of Native Plants.

The text is prepared specifically for Auckland consumption, with references in every paragraph to local parks, reserves, and other places where native plants may be seen. For a visitor wishing to see the chief points of botanical interest in Auckland, it would be especially valuable. Even those who do not know the city of the north and its environs should find interest in the affectionate and infectious enthusiasm for the plants of seashore, heath and forest, and in the vivid descriptions of the native haunts and habits of many species known here only in gardens.

The list of species, covering seaweeds, ferns and their allies, and seed-plants, reminds us that we should aim at the preparation of such a list for our Wellington area. It would be interesting to see