

THE REV. J. E. HOLLOWAY, D. Sc., F.R.S.

Botanists throughout the country will regret the death at a comparatively early age of New Zealand's famous scientist, Dr. J. E. Holloway. He had retired only a few months before from the position which he had held for over twenty years of Lecturer in Botany at the University of Otago. He was still continuing research work, and had he been spared we would have had more valuable botanical writings from him.

In all countries Dr. Holloway is famous for his researches into the difficult life histories of some plants in the group Pteridophyta which includes ferns and lycopods. It had long been observed that fern spores grew into small delicate plants called prothalli, which bore sex organs from which new spore-bearing plants arose. The nature of the prothallus of the lycopod group, however, was something of a mystery on which the first light was shed in 1884 when Treub wrote an account of the prothallus of Lycopodium cernuum; it was a minute, subterranean plant.

When Dr. Holloway was a student at Auckland University College he commenced working on the New Zealand lycopods. He started investigating that small but interesting plant, Phylloglossum drummondii, which is found in New Zealand only in scrubland in the north of the North Island. It produces spores in a tiny cone and corresponds in a general way with the lycopodiums. Dr. Holloway actually discovered several Phylloglossum prothalli, at a time when for the whole group of lycopods very few prothalli had been seen. His work led him away from Auckland for many years, and it was not until after 1920 that he was able to try again for this interesting material. In spite of much patient searching he discovered in later years only one Phylloglossum prothallus, and of this he published a full and detailed description in 1935, thus filling some of the gaps in the preliminary account published in 1901 by Professor Thomas.

Dr. Holloway was ordained in the Anglican church which he served both in England and in New Zealand. He spent over two years in England, at Barnsley, near Leeds, where he gave every spare moment to searching over the slack heaps of the coal mines for plant fossils. He built up a magnificent collection of fossils, mostly of the Carboniferous age, of extinct lycopods. A few years ago a botanist from Leeds visited the one-man, one-room Botany Department in Dunedin, and let it be known that he was used to more amenities than this. Dr. Holloway, who had a fine sense of humour, offered to show some of the department's material, and set out the best fossils. The visitor exclaimed in astonishment, "Wherever did you get such beautiful material?" Dr. Holloway replied casually, "Oh, I collected it around about Leeds!"

During his years in parish work in New Zealand, especially while he was in Westland, Dr. Holloway devoted his spare time to botanical research, and published a series of classical papers on the New Zealand species of the genus Lycopodium, on New Zealand filmy ferns, and also on Tmesipteris. He discovered abundant lycopod prothalli, more than had ever been unearthed before. His outstanding success in this work, where a great many others had tried and failed, was probably due to his unusual patience, persistence and skill in manipulating these very small objects. His slide collections and other original material is now housed with the Kidston and Gwynne-Vaughan collections in the University of Glasgow, where Bower and others carried out so much of the early archegoniate research.

Dr. Holloway's published work established him as a scientist of international fame. When he was first proposed for the Fellowship of the Royal Society in 1937 he was elected immediately, although only 17 selections were made from a list of 156 nominees, all of whom were distinguished men.

As a teacher, Dr. Holloway's skill was no less than his skill as a research man. He ran his department single-handed for most of his years there, and covered all the branches of botanical science just as thoroughly as those within his own field. He never spared himself, and always spent long hours in the laboratory with students of all stages. He had tutorials for backward students and tutorials for Honours candidates. Then there were always a few people who had to fit in lab. study at odd hours; they missed nothing for not being able to attend with the rest of the class. Many students of medium ability who had difficulty with other subjects, passed examinations in botany well, thanks

to Dr. Holloway's careful coaching.

Field botany was a special feature of study under Dr. Holloway. A series of excursions formed part of the course work for each stage. Great fun we had on these trips too. Mrs. Holloway, whose sense of humour was just as keen as the doctor's, often came with us. When we boiled the billy by the creek or on top of some mountain, Dr. Holloway would amuse us with some of his yarns, or Mrs. Holloway would poke fun at him with her side of some of the stories. The doctor's eyes would twinkle as he looked over the top of his glasses. He was a good friend to his students, as well as their good teacher. His wide knowledge and keen interest in the New Zealand flora led to informal, but most successful, teaching on these occasions. Many of us learned from him in this way what interest and pleasure there was to be found in the continued study of botany in the field. His old students especially, will mourn the death of this great man.

Greta B. Cone.

NGAIO GORGE.

On Saturday, October 6, we went out on an excursion to the Ngaio Gorge. Dr. Cone led us and we divided up into groups of three with one member of the Botanical Society instructing two girls from the schools. There were several girls invited from Wellington East and Marsden. We saw Clematis in bloom on the tops of the trees and also the rangiora in flower. Other plants that were shown to us were the hinau which had finished flowering, ramarama (Myrtus bullata), the white maire (Olea), the seven finger (Schefflera digitata), Shawia paniculata, the latter planted alongside the track, and juvenile Melicope simplex. We also saw titoki (Alectryon excelsum) and the New Zealand passion vine (Tetrapathaea tetrandra). All along the track were numerous ferns including Asplenium bulbiferum, Cyathea dealbata, Pellaea rotundifolia, Leptopteris hymenophylloides and Cyclophorus serpens growing down from the larger trees. We could not get right down to the stream through the gorge as there was a slip across the track, but we were lucky that we turned back so soon as it began to rain just before we caught the electric train back to Wellington.

Oenone Wood and Patience McLean.

WILLIS STREET CALLED A GORGE.

(Copied from "Evening Post" of August 8, 1945.)

A great Nature-lover died recently in Auckland - Mr. J. E. Attwood, known to botanists and museums as a careful botanic collector, and known to the Native Plant Preservation Society as one of its most humorous and thoughtful correspondents. His usual beat was the central group of mountains (Ruapehu, Tongariro, Ngauruhoe), and the plateau at their feet, also the river valleys that drain down from the plateau to the Wanganui River. As a builder, he found employment at the hands of the bushline farmers. He saw 30-odd soldier-settlers go into the Mangapurua Valley after World War I, and saw circumstances make a clean sweep of them, so that the whole valley became abandoned - farms, roads, bridges - to "second growth", which is the counter-attack of native vegetation mixed with introduced weeds. The "frontier of civilisation" surged forward, then receded, and left derelict houses that he had helped to build, or their razed sites. Mr. Attwood was interested in geology as well as in botany, and would point to glacier-borne boulders remote from the mountains, indicating old-time glaciation conditions of which Ruapehu preserved a trace. His studies in montane and alpine botany, in the days preceding Ruapehu's present volcanic activity, occupied many pleasant hours. As a lover of the back o' beyond - its hills, valleys, ravines - he did not greatly love cities, but in Wellington he found one point of affinity with the deeps and steeps of Nature. "Willis Street", he said, "is just a gorge!" But he found the stream of traffic in Willis Street more dangerous than the rushing torrents of the gorges he knew. To make cities safe for citizens would become, he said, a job far exceeding the resources of transport authorities. And so he went back to the comparative safety of the back o' beyond, which, in spite of rain, flood, and landslip - in spite even of lava flows - remains the Mecca of every foot-free individualist who prefers to the narrowness of urban life the freedom of the open spaces.