

CHARLES, E. FOWERAKER, M.A., F.L.S., BOTANIST AND FORESTER,

1886-1964.

C.J. BURROWS

Department of Botany, University of Canterbury,
Christchurch, New Zealand

ABSTRACT

This brief biography describes the life and botanical works of Charles Foweraker, Demonstrator in Biology, then Lecturer in Botany, Lecturer in charge of the first School of Forestry, then its Director and, finally, Senior Lecturer in Botany, at Canterbury University College.

EARLY LIFE AND TEACHING CAREER

Charles Ethelbert Foweraker was born in Waimate, South Canterbury, in 1886. He was educated at the Waimate High School and, as a youth and young man visited many of the stands of native bush and tussock grasslands of the nearby Hunter Hills. As his field notebooks and microscope slide collection from this time show, natural history gripped his imagination and he became a good field naturalist. He was communicating with the teachers and botanists G.M. Thomson of Dunedin by 1905 and R.M. Laing of Christchurch soon after.

He started as a pupil teacher in 1904, and obtained his teacher's certificate extramurally while teaching at the Waimate Primary School. He took an extramural B.A. at Canterbury College; his first, formal biological training was under the tutelage of Professor Charles Chilton. Foweraker's next position was as first assistant at Waimate High School (1910-1912) and he participated very fully in the life of the school. His interest in botany was maintained and extended by his association with Dr. Leonard Cockayne, the most influential New Zealand botanist of the time. They first corresponded in 1911, when Cockayne (then in his 60s) sought information for the book "The Vegetation of New Zealand", which he was writing. The two joined company on several expeditions in Marlborough and Canterbury. They became firm friends and Cockayne gave Foweraker much encouragement in his career. They were still exchanging letters in 1929.

EARLY UNIVERSITY LECTURING CAREER, WAR SERVICE
AND CAMBRIDGE INTERLUDE

Foweraker accepted the position of Demonstrator in Biology at Canterbury College in 1914. He was responsible for much of the undergraduate biological laboratory work, for botanical lecturing and also for taking field excursions with students at the brand-new Cass Mountain Biological Station. His enthusiasm encouraged the first wave of research by Botany students at Cass and around Christchurch. He completed an M.A., with first class honours, in 1916. His thesis "The Mat Plants, Cushion Plants and Allied Forms of the Cass River Bed" dealt with the morphological biology of these plants and was subsequently published in the Transactions of the New Zealand Institute, in the series "Notes from the Canterbury College Mountain Biological Station". Numbers of Foweraker's photographs were included in other papers in the series.

In 1916-18 Foweraker served, as a private with the New Zealand forces, in the conflict in France, first in the First Canterbury Infantry Regiment, then, after receiving a bad wound to the left hand, in the Medical Corps. He finished the war with the rank of corporal. He wrote about encounters with interesting plants even during the grim life in the trenches and he imparted his botanical knowledge to his fellow soldiers.

He took Botany lectures at Birkbeck College in London, while convalescing from his wound. After the war, in 1919, with the aid of an N.Z.E.F. scholarship, he took Botany and Forestry courses and did some research at Cambridge University. He was attached to Downing College. Professor Chilton encouraged him to take an interest in forest science, because Canterbury College intended to establish a School of Forestry. Foweraker visited several British Universities to study their Botany and Forestry courses and learnt much about the teaching of these subjects. This phase of his life was very important and formative for him. He became acquainted with many leading British botanists including A.C. Seward, H. Hamshaw Thomas, A.G. Tansley, G. Briggs and J.C. Willis and continued to correspond with them on his return to New Zealand. His fiancé and former student, Jean Willis, joined him and they were married in Cambridge.

THE FORESTRY SCHOOL AT CANTERBURY COLLEGE

In 1921 a bright career seemed assured, when Charles Foweraker accepted a Lectureship in Forestry and Botany at Canterbury College. The opening of the Forestry School in 1924 was a major event for the College. It was the second professional school there, complementing the Engineering School, and Foweraker became the Lecturer in charge. It is clear from his papers that he took a most enthusiastic and energetic view of his responsibilities. He established degree courses which were to provide a sound training in subjects such as systematic botany, wood science,

silviculture, forest mensuration, surveying, forest economics and forest law. He was helped, very considerably, by his assistant, Mr. F.E. Hutchinson. The courses, during the 1920s, and early 30s included extensive practical fieldwork in the planted pine forests of Canterbury and the native forests of Westland. Field camps were held near Darfield, Hanmer, Hokitika, Greymouth and Ross. The number of graduates from the School, however, was small; about a dozen all told.

The graduates who proceeded to professional Forestry careers went on to work in the vast exotic forests which had been established, in the 1920s and 30s in the central North Island, as well as in many of the plantings in the South Island. There was also a small but steady flow of work on native species. There were close links between the academic and professional branches of Forestry and Foweraker assisted in the formation of the New Zealand Institute of Foresters. He several times held office, including the Presidency of the Institute. He was a special research officer for the New Zealand Forest Service 1920-1930 and, in this time, did his most important research, on various aspects of the biology of podocarps (especially rimu, *Dacrydium cupressinum*), which are important for their silviculture. He constructed a key for the identification of *Dacrydium* species at all stages of their development. Long term research projects and permanent study plots were set up in the Westland Forests, but, unfortunately these were not later maintained, through no fault of Foweraker's. From 1930 until 1934 he was Director of the Forestry School.

Senior students of the Forestry School began to publish their research; the journal of the Forestry Club at Canterbury College, Te Kura Ngahere 1924-1934 (subsequently the New Zealand Journal of Forestry) contains articles by them on many aspects of Forestry and some by Foweraker on his podocarp research. Much of his work, however, remains unpublished, in annual reports to the Forest Service. Foweraker took hundreds of photographs which provide a permanent record of Forestry in the 1920s and early 30s. He was friendly with people at all levels of the forest industry, from loggers and sawyers, to mill owners.

Then came a severe blow. The economic depression of the 1929-1935 period caused the Government of the time to retrench on educational spending and the Forestry School was closed, in 1934. Forestry in New Zealand was undoubtedly set back by this. Academic training in Forestry was abandoned for a time, but re-established later, by sending students to obtain their degrees at Australian and British Universities. While there were various advantages in this, there was a certain loss of professional solidarity and, apparently, a loss of interest in the welfare of native forests by most of the decision-makers, which took some 30 years to overcome.

LATER CAREER

Foweraker reverted to his position as Senior Lecturer in Botany in the Biology Department, subordinate to its head, now

Professor E. Percival, a Zoologist. Although Foweraker pursued his duties conscientiously, there was never again the exuberance in his writing about his job that had been evident in the 1920s. Furthermore, the academic community of Canterbury College at this time had a strongly-developed pecking order and non-Professorial Staff did not receive much recognition from the upper echelons of the hierarchy.

He continued to take a considerable interest in general Botany and plant physiology, keeping up with modern developments. He had a very wide general knowledge of the plant world. He supervised numbers of Masters degrees, in a period when research in New Zealand Botany was being approached with greater rigour. In 1935 he took six month's leave, including a month in Australia (Sydney-Melbourne-Adelaide-Fremantle-Perth), short visits at Colombo, Suez and Gibraltar, three months in his old haunts in Britain, with trips to Scotland and Ireland, two months in the U.S.A. (New York-Ithaca Newhaven-Boston-Chicago-St Louis-Tucson-Los Angeles-Yosemite-San Francisco) and, on the way home, short visits to Tahiti and Rarotonga. He must have considered that it was possible that the Canterbury Forestry School would be reestablished in his time, for he visited Universities to discuss Forestry (and Botany) matters, and took many photographs of American forests. He also took a general interest in the Botany and vegetation and visited museums and other educational institutions.

The rest of Foweraker's working life, however, was as Senior Lecturer in Botany at the College. Among his papers is much correspondence with botanist colleagues at Universities, and in Government Departments and research organizations in New Zealand and overseas. There is also correspondence about botanical affairs, with many amateurs, many of whom were good friends. He was active in the Canterbury Philosophical Institute (now a branch of the Royal Society of New Zealand) and the Royal New Zealand Institute of Horticulture of which he became a Fellow in 1948 and Associate of Honour in 1951. He was Secretary of the Board controlling Riccarton Bush 1926-1943 and a member of the Arthur's Pass National Park Board and Peel Forest Board in the 1940s and 50s. He helped with school naturalist clubs and gave radio talks. He and his wife, Jean, developed a very fine alpine garden on Cashmere. Foweraker retired in 1951 and died in 1964, survived by his wife, daughter and son.

EPILOGUE

Charles Foweraker did not publish much research (see the list of papers at the end of this account). However, he will be remembered by botanists at Canterbury for a long time, because of his great skill as a photographer. He did his own photographic processing. We are extremely fortunate to have many of his photographic negatives (many on glass plates), especially those of the area about the Cass Field Station. The first of these were taken in 1914 and others up to about 1930. There are also

photographs of various other botanical subjects. The forestry photographs have been given to the new School of Forestry, which opened in 1970.

Foweraker's special contribution to New Zealand Botany was the interest and enthusiasm which he engendered in his students. During the training of the many foresters and botanists who passed through his hands (and who went on to develop successful careers), he put the needs of the student uppermost and went to great trouble to see that the graduates were placed in positions, even in the hard times of the 1929-1935 depression. Former students of his remember, with affection, his kindly and gentlemanly nature. At Cass we have named the ridge between Sugarloaf Bush Valley and Chilton Valley the Foweraker Spur. Often this is the route by which young botanists reach the summit of Mt Sugarloaf in their search for interesting plants. Perhaps it is an appropriate memorial to Charles Foweraker, who did so much to help the young botanists of his day. The Forestry School of the University of Canterbury has named its field station at Hari Hari after Charles Foweraker, also a fitting memorial, near some of the last extensive, virgin podocarp stands in the country.

ACKNOWLEDGEMENTS

This biography has been compiled with the help of personal papers and diaries, kindly made available to the Botany Department, University of Canterbury, by Mrs. Jean Foweraker, Charles Foweraker's wife and Mr. John Foweraker, their son. Originals or copies of the papers have been placed in a Foweraker archive in the University of Canterbury Library. Further information was obtained directly from Mrs Jean Foweraker and Mr Ross Elder.

SCIENTIFIC PUBLICATIONS OF CHARLES FOWERAKER

- COCKAYNE, L., FOWERAKER, C.W. 1916. Notes from the Canterbury College Mountain Biological Station, Cass. No. 4. The principal plant associations in the immediate vicinity of the Station. *Transactions of the New Zealand Institute* 48: 166-86.
- FOWERAKER, C.E. 1917. Notes from the Canterbury College Mountain Biological Station, Cass. No. 5. The mat-plants, cushion plants and allied forms of the Cass River bed (Eastern Botanical District, New Zealand). *Ibid.* 49, 1-45.
- FOWERAKER, C.E. 1925. The rain forest of Westland. *Te Kura Ngahere* 1 (1): 7-9.
- FOWERAKER, C.E. 1929. The podocarp rain forests of Westland, New Zealand, No. 2. Kahikatea and totara forests and their relationship to silting. *Ibid.* 2 (4): 6-12.
- FOWERAKER, C.E. 1932. Sex distribution in rimu. *Ibid.* 3 (2): 68-70.
- FOWERAKER, C.E. 1934. The distribution of the Podocarpaceae. *Ibid.* 3 (4), 160-5.