

in a separate compartment from direct observation. For instance, he was not satisfied with saying that his notes applied to a certain species; in each case he gave the precise origin of his seed and this means that, even after 70 years of taxonomic revision and name changes, there is rarely any doubt as to the plants he used. In his field notebooks he often made a heading "from memory" for notes written in the evening, to distinguish them from his constant jottings in the field. His closeness to the living plant, the whole basis for these first papers, permeates all his work.

Outside his garden, from seashore to mountain top, he seems always to have been wondering—how can these plants grow here? Where did the seeds come from, how did they travel? What special attributes allowed them to survive the dangers that all seedlings face, and how many other seedlings, of how many different kinds, failed in their early stages? Are these two plants really different, or do they merely show how the same plant can alter in appearance when growing in different kinds of situations? How are the plants growing here just now related to the history of this site? And how did their ancestors look?

With these questions in his mind he very quickly realised that the natural vegetation of this country was disappearing before his very eyes, though he hardly recognised how much comparatively recent change there had already been. He was then imbued with a compelling sense of urgency—urgency to record, urgency to form and test hypotheses, urgency to save, not for sentiment but for the crying need to learn and to apply the information won from nature to the problems of land use that he could plainly foresee. With the conviction born of sure and detailed knowledge he campaigned long and successfully for the preservation of characteristic examples of vegetation and some of his earliest writings were newspaper articles aimed at building up an informed public opinion. By 1901 he had ensured the reservation of the mountain area that he knew best—the great part of what is now the Arthur's Pass National Park.

It is not surprising that Cockayne is said to have been an ecologist readymade waiting for the term to be adopted by botanists and, with his keen insight, able to lead the way not in New Zealand only, but in the world (Hill, 1935: 444). The plains, foothills and mountains of Canterbury gave him ample scope. He was accompanied on his excursions, sometimes by his son Alfred, later to become Government Biologist and finally Director-General of Agriculture. Often he had as a companion one Robert Brown, a shoemaker-naturalist who had taken up the study of mosses. This friendship lasted twenty years and one can imagine the wide-ranging discussions as the two carried their plants home. When he joined the Canterbury Philosophical Society a world of new contacts opened up for him, and here too he could announce and publish the results of his work. He was a person who needed an audience, seen or unseen, and his pen was always busy.

In 1898 he read a paper describing what happened after subalpine scrub had been burnt at Arthur's Pass, and this was the first New Zealand account of successional changes in vegetation. In the following year he presented to the Institute a detailed classification of the vegetation types of the Waimakariri Valley, also the first of its kind in New Zealand.

Having a modest private income Cockayne was not tied to a regular occupation and he was always a great traveller. Before the end of the century he was acquainted with the vegetation of various parts of the South Island. Early in 1901 he spent six weeks on Chatham Island and his account of its vegetation (1902) brought him great fame abroad. The spring of 1902 found him travelling by lighthouse ship from Taiaroa Head in Otago through Foveaux Strait to Greymouth, with many botanical stops, and four months later he was again at Ruapuke Island, Centre Island and Milford Sound, and had the "rare opportunity" of landing on the windswept Open Bay Islands. It was in this same year, 1903, that he made his famous