A HISTORICAL REVIEW OF FORESTRY EDUCATION IN NEW ZEALAND

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Any discourse on the beginnings of forestry in New Zealand must open with a recognition of the technical competence of the men who, as senior staff of the Afforestation Branch of Lands Department, established the nuclei of our exotic forests to a high standard of excellence in terms of the established practices of the day, in spite of remote location, harsh climate, and an untrained and apathetic labour force.

Tribute must also be paid to Dr L. Cockayne and Sir David Hutchins for their significant contributions to government thinking, leading to the decision to set up a separate department of forestry.

However, it can fairly be said that professional forestry in New Zealand dates from the arrival in 1920 of L. Macintosh Ellis to take office as our first Director of Forestry. A graduate of the School of Forestry at Toronto University, Ellis had had several years with the Ontario Forests Department and with the Canadian Pacific Railway forestry branch before going overseas as a captain in one of the Canadian forestry regiments, charged with logging and milling the Scottish woodlands to meet the urgent needs of war. After the Armistice he remained at Edinburgh, associated with what was to become the British Forestry Commission, and it was from this position that he applied and was accepted for the New Zealand directorship.

Confronted on arrival with the immediate task of setting up the new Department, his administrative framework of regional conservancies, district rangers, and field officers was evidently well conceived since it has continued with little change to the present day. Field, executive and administrative posts were filled almost entirely by transfers from Lands Department. The old Afforestation Branch, brought over practically intact, provided the core for planned expansion of exotic forest planting, while indigenous forest activities were staffed by many who, as Crown lands rangers, had had field experience in surveying, timber measurement, and control of sawmilling on Crown lands.

The post of Chief Inspector was created as the senior professional position, and was advertised throughout the British Commonwealth. Initial steps to provide a recruitment of professionally-trained officers had actually preceded the setting up of the Department. Forestry had been included in the series of courses at British universities made available under the N.Z.E.F. scholarship scheme to members of the armed forces awaiting repatriation from Britain. Under this scheme, three men took the four-year B.Sc.F. course at Edinburgh University. They returned to New Zealand in 1922, and were immediately recruited into the Forest Service to become the nucleus of its professional division.

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The matter of professional forestry training within New Zealand had also had government consideration, and a suggestion had been made that Canterbury College might consider the establishment of a school of forestry. As a step in this direction, the College arranged for its lecturer in botany, C. E. Foweraker, then serving with the forces, to take a series of forestry subjects at Cambridge University before returning to New Zealand.

The years 1923–5 saw the recruitment of two more New Zealanders, trained overseas on their own initiative, and of several Britons trained at English, Scottish, Irish and Welsh universities. Among the latter was Miss Mary Sutherland, our one and only woman forester. The professional division was thus gaining in numbers, and the wide diversity of training was to be a future source of strength. Initially, however, there was a period of uncertainty and frustration as the new arrivals grappled with the actualities of the New Zealand scene, so different from those on which their training had been based.

Meantime there was a patent need to upgrade the technical skills of the rapidly-expanding field staff. The first organized course of instruction therefore was in the sub-professional field. This was the Ranger School held at Whakarewarewa in the winter of 1924. Attended by one to three senior field officers from each conservancy, and instructed by the Chief Inspector and three of his professional cadre, the syllabus covered surveying and mapping, timber measurement, and the elements of botany and silviculture. Whaka forest provided a great range of species for identification, and nursery and plantation techniques were observed there and at Kaingaroa.

One result of the course was a greater uniformity in field practice, particularly in timber measurement. However, this first ranger school was important not so much for its instructional content as for the emergence of a spirit of unity of purpose among many strongly individualistic characters meeting and working together for the first time. In fact, it could be said that the corporate spirit of the Forest Service first became evident at that time. The Ranger School was repeated on the same pattern at Hanmer in 1925, and again at Rotorua in 1927, following which the Forest Service vacated the field of sub-professional training for nearly two decades.

Meantime, moves to establish a university professional school had struck political trouble. The distribution of professional schools among the four semi-independent Colleges comprising the University of New Zealand had always been a contentious matter. It was therefore typical of the spirit of the times that negotiations by Canterbury College for recognition, and a government grant to augment a private bequest, should be opposed by a demand from Auckland that the proposed school should be located there. Government dealt with the problem by recognizing schools at both Colleges, and by splitting the appropriation of £2,000 per annum equally between the two.

This was a serious blow to Canterbury's expectations, and called for a quick reappraisal of plans. However, by deleting the professional chair, staffing the professional side with two lecturers, and calling fully on the resources of other departments — biology, engineering, etc. — a way was seen to meet the requirements of the syllabus. The doors of the School of Forestry opened accordingly in February, 1925.
The courses offered were:

(1) A four-year course leading to the B.Sc. For. degree of the University of New Zealand. This called for an initial year of pure sciences to Stage I which could be taken at any of the four constituent colleges, followed by three professional years at a recognized school of forestry.

(2) A three-year course leading to the diploma of Associate of the Canterbury School of Forestry. This had a professional content similar to that of the degree course, but omitted the initial year of pure sciences.

(3) A ranger course of sub-professional instruction, aimed to give a grounding in applied forestry techniques to men expected to have had some field experience.

To have coped simultaneously with three different levels of instruction would obviously have been impossible. In fact, however, the requirement for the first year of pure science meant that no degree students were ready to enter immediately on their professional subjects. This first year of operation was therefore used to overhaul the prescriptions for the degree, to initiate a programme of research, to purchase laboratory and field equipment, and to try out methods of subject presentation on the small group who presented themselves for sub-professional courses on the opening day.

The degree syllabus which emerged was strongly influenced by North American concepts in its emphasis on utilization as the basic justification for forestry, and on field work as the basic element in forestry teaching. The research programme was conceived to cover a wide front involving many of the College departments, as well as the School of Forestry. The School of Engineering was already engaged on a comprehensive programme of timber testing; all honours botany students for ten years were induced to prepare theses on topics with a forestry application; and both the zoology department and the Canterbury Museum were dealing with entomological problems of forestry significance.

At the request of the Forest Service, the School of Forestry undertook first a forest survey of Canterbury, and then a long-term investigation of the podocarp forests in Westland. Studies of wood structure were later added to this programme. In addition, the School maintained a service to industry including tests of timber for identification and moisture content, special courses on kiln drying for staffs of sawmills and timber merchants, collaboration in the formulation of timber-grading rules, and measurement and valuation of privately-owned plantations.

In contrast to Canterbury, Auckland College proceeded to appoint a professor as the sole staff member of the professional School. The doors opened in February, 1926, and, owing to the availability of the Smith-Wylie scholarships, tenable only at Auckland University College, several students were awaiting admittance, including two who had already completed the first year of pure science and were ready to commence their professional courses. These students were all candidates for the degree, and at no time during its life did the Auckland School enter the field of sub-professional training.
From 1926, there were, therefore, two recognized schools, each attempting to operate on a totally inadequate budget, and each largely duplicating the other’s work, for a mere two dozen students in all. No one in university circles was happy with the position, and it appeared that Government was experiencing qualms of conscience for its part in the affair. When the 1928 Commonwealth Forestry Conference disbanded, two of its members were asked to inspect both schools, and make recommendations. Their report was not immediately released but finally, at a conference with the authorities of both colleges in 1929, the Minister of Education revealed that a clearcut recommendation had been made for a single school to be located at Canterbury. He then advised that Cabinet had accepted the recommendation and that the Auckland School would be closed at the end of 1930.

Transfer of the Auckland students to Canterbury had a stimulating effect on both staff and student body. Materially, however, the position did not improve. The depression was upon us, and Government simply retained the £1,000 per annum previously granted to Auckland, instead of transferring it to Canterbury as expected. Even worse was to follow. Drastic retrenchment became the order of the day and the Forest Service, as a recent Department of State, was marked for reversion to Lands Department control. Though the ability of the Service to provide work for the unemployed eventually averted its abolition, there was a bitter struggle and some sop had to be thrown to the wolves.

The Director of that time, as an original transferee from Lands Department and with a lifetime of experience in the administrative machine, was sincere in his belief that a staffing of such men could administer the State forests without professional assistance. The products of the Schools were in fact a problem in their lack of respect for the existing order of things. Decision was therefore taken by Government to close the Canterbury School at the end of 1934. Further student intake was stopped, and steps were taken to assist existing students to complete their courses by that date where possible. One student, caught in mid-course, was able to proceed overseas to complete at a North American school. When the actual date of closure arrived, the worst of the depression was over and the Canterbury College Board considered continuing the School from their own resources. Government, however, quickly made it clear that “academic freedom” did not apply to finances, and if the College persisted with this course other grants to the College would be correspondingly reduced.

All formal instruction in forestry in New Zealand thus ceased in both professional and sub-professional fields, until the effluxion of time brought A. R. Entrican into the Director’s chair. Faced with the urgent needs of war, and with a clear vision of what the future could hold for New Zealand in expanded utilization, Entrican acted decisively to upgrade his Service to meet the tasks which were to fall upon it.

The New Zealand graduates, who had largely rusticated under the previous regime, were given increased responsibilities. Professionally-trained men were encouraged to come from overseas—a timely move when so many were being repatriated from the ex-colonial services. Woodsmen’s schools and field officers’ training centres were set up on a full-time basis, and special courses pro-
vided for staff officers of all grades as part of a comprehensive plan of departmental training. Finally, promising recruits were encouraged to take a science course in New Zealand universities and were then sent to overseas forestry schools for professional training.

All these moves were entirely intra-departmental, with costs met from Forest Service appropriations, and full control in the hands of the Director. This was partly because, at the time, private forestry was inactive, and partly because of Entrican's personality. When on one occasion he was discussing with a university the re-opening of a New Zealand School of Forestry, he made it perfectly plain that he expected to have effective control over it.

However, the expansion of private forestry in the fifties caused serious losses of trained personnel from the Forest Service, and it was realized that provision must be made to provide men for private forestry practice other than by resignation from the Forest Service. Woodsmen's schools and staff training centres were therefore opened to nominees of the private forestry companies. The professional field was also catered for by the private forestry bursary scheme, which affords opportunity for a New Zealand science graduate nominee of a private forestry organization to take a two-year course at an overseas forestry school, with half the cost met from government funds.

We now look to the future in the light of agreement by all concerned that a professional school of forestry should again be opened at a New Zealand university for the training of New Zealanders, and of others who will come from overseas to study in the very favourable conditions with which we are blessed. We wish it every success.