Earlier Professional Schools of Forestry in New Zealand

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Up to the time of the opening of the New Zealand School of Forestry at the University of Canterbury in 1970, there had been four earlier professional schools, two real and two notional. Research into their coming and going, or not coming at all, reveals a range of preferences about professional training for forestry in this country. It reveals also the impacts of parochial and political pressures.

There was specific statutory provision for the first school in the New Zealand Forests Act of 1874. However this statute was never very effective and plans for the school had to await the State Forests Act of 1885 and the appointment the following year of Thomas Kirk as Chief Conservator of Forests. Kirk strove to establish a professional school near Whangarei - the northern location doubtless reflecting the importance then of kauri - which would turn out people trained in the principles and practices of forestry, pomology (fruitgrowing) and agriculture. He envisaged 16-21 students enrolling either in forestry/pomology or agriculture. Instruction would be through lectures, experiments and analyses in biological and chemical laboratories, and practical work in forest, orchard, garden and farm. There was to be a general manager and lecturers in Biology, Chemistry, Forestry/Pomology, and Mathematics. A porter, gardener/forester and a dairyman would complete the staff of the residential unit. Kirk put a lot of emphasis on practical skills and egalitarian attitudes; students would have to clean their rooms, wait at table and share other domestic duties. He wanted to produce graduates who would be suited to the life style of rural environments, then often close to pioneering frontiers. He recognised too that the school would have to contribute towards its running costs. With this in mind he recommended the establishment on school land of 100 ha of wattle plantations, 20 ha of jarrah, and 2 ha of fruit trees.

The Government made available for the school the 1575 ha Kioreroa Block which was close to Whangarei. Unfortunately the soil there was poor and it would have been difficult for the school to earn revenue from it. So Kirk looked for additional better land and found some at Papatawa, close by, which was owned by the Whangarei County Council. Such was Kirk’s mana and persistence that the council gifted half the area (20 ha) to the school and local settlers raised the money to buy the rest. It was a good start, but not good enough. A prudent Government insisted that the establishment of the school be delayed until revenue from the orchards and plantations was certain. In any event Kirk’s Forest and Agriculture Branch of the Lands Department, which he had headed, did not last long. The Stout-Vogel Government was defeated in 1887 and the new administration under Atkinson opted for retrenchment. The Forest and Agriculture Branch was an easy target and Kirk and his plans for the school went with it. The country had to wait almost another four decades for another essay into professional forestry education and training. Meanwhile public concern about a pending national timber famine resulted in the formation in 1897 of the Forests Branch of the Lands Department which commenced to establish exotic plantations on a modest scale.

1913 was the year the Royal Commission on Forestry reported to the Government, recommending more State planting and indicating suitable regions. The report was a comprehensive one, including for instance recommendations on the “education of cadets and others”. The Commission did not promote any detailed scheme but pointed out that a State forester should have an understanding of botany, entomology, chemistry, geology, surveying and mathematics, all of which subjects could be taught them by the University of New Zealand. They went further to suggest a modus operandi which, in essence, was later implemented by the Forest Service for about 20 years: letting young men study part-time at Victoria University College while they were employed on clerical duties at the Head Office of the Lands Department. They suggested too that some of the able students who currently gained scholarships to study in England and the Continent might be induced, if they were guaranteed State jobs afterwards, “to study forestry in some of the great schools devoted to that subject”. The report of the Royal Commission and later the lobbying of the Forestry League helped persuade the Government to set up a separate State forestry department. New Zealand was most fortunate in its appointment of the first Director of the State Forest Service. When Canadian Leon Macintosh Ellis stepped ashore in New Zealand in 1920 we had recruited a forester with both an impressive background of experience and a breadth of forestry vision, even though he was only 33 years of age. He had boundless energy too. Within a year he had produced in a report to the Government a blue-print for New Zealand forestry which promoted an effective, indeed inspired forest policy, one which was to set the New Zealand forestry scene for the next decade and beyond. Ellis’ vision was comprehensive and detailed too, including proposals for research and training.
He wanted a professional school of forest engineering - the engineering orientation reflecting his own professional forestry training at the University of Toronto - and a State ranger school, both established at Canterbury University College (as it was then). The former would teach a four year undergraduate course to provide men who would later occupy the senior executive and administrative positions in the Forest Service or in other forestry organisations. A one year ranger course would produce men to be employed as forest wardens and forest guards in the Forest Service, and also men trained for the sawmilling industry. He wanted too a more specialised four year undergraduate course for logging and milling engineers who would be recruited by a wide range of employers. He pressed for all the training to be undertaken in New Zealand, rather than overseas, so that "during the educational period a knowledge of local conditions be allowed a chance of striking deep root"5.

Canterbury University College was quick off the mark, even before the arrival of Ellis. In 1919 T.W. Adams, a farmer and forestry enthusiast, left to the College £ 2,000 and 98 acres of land partly planted with a wide range of introduced tree species at Greendale, some 40 km west of Christchurch, to help establish a forestry school. C.E. (Charles) Fowleraker, a botanist who had received an NZZF scholarship to study forestry at Cambridge after he had served in France during World War 1, was appointed lecturer in forestry at the College in 1921, giving forestry lectures in the existing biology course. This initiative did not yet represent a school of forestry but Ellis' approval of Canterbury as his preferred site for forestry studies seemed to indicate that it would be the precursor6.

Auckland University College made strenuous efforts in the 1920s to secure special schools in engineering, agriculture, dentistry and forestry. Engineering was particularly important to them so there was great disappointment in the north when the Senate of the University of New Zealand denied Auckland University College a school of engineering on the grounds that there was not a need for a second school (Canterbury already had one), nor was there money available for it7. Imagine the shock to Canterbury when in 1923 the Senate, doubtless as a sop for their losing out on engineering, approved Auckland in principle as a site for a school of forestry8.

The crisis came later at a 1924 session of the Senate when the lines of battle were firmly drawn. Canterbury had engineering and wanted forestry. Auckland was assured of forestry at some future time and wanted engineering. The Senate stuck to its guns over no engineering school for Auckland but, incredibly, agreed to recognise two schools of forestry, one at Auckland and one at Canterbury. Later in 1924 the Government decided to set up the two schools, giving each £ 1000 a year plus an initial equipment grant of £ 6009. It was a triumph for parochialism, excessive compromise and illogicality. The result was two under-resourced schools when what was wanted was one strong one. It was not what the Forest Service had wanted either. In the same year Ellis had written to the Commissioner (Minister) of State Forests suggesting, based on his acquaintance with both Colleges, a school of forestry at Canterbury and a forest products laboratory at Auckland10.

In 1924 W.R. McGregor, a lecturer and demonstrator in the Department of Biology who had undertaken ecological research into the kauri forests, was appointed as a Lecturer in Forestry at Auckland (apparently a dual position). Next year Hugh H. Corbin was appointed to the Auckland Foundation Chair of Forestry11. Corbin, who had trained in England12 and was well qualified academically, had had much field experience in European and Indian forests and was previously Lecturer in Forestry at Adelaide University13. However Corbin's appointment was not welcomed by the New Zealand Forest Service. Ellis wrote to the Minister of Education and A.R. (Alex) Entwistle, then Forest Service Engineer in Forest Products, wrote to the Auckland Registrar, both criticising the appointment. It appears that they regarded Corbin as too theoretical14. Other departments at Auckland contributed to the School, for instance the Professor of Economics taught forestry students15. Entomology was taught during the vacation by A.F. Clark at the Cawthron Institute, Nelson16.

The Auckland school opened in February 1926. The course was purely professional; there was no ranger training17. It was a four year one, an intermediate year followed by three years in which forestry subjects became more prominent. A lot of emphasis was placed on a wide range of practical experience being gained in 12 months of forestry employment during the vacations for which diaries had to be produced18. In 1927 the Auckland school comprised 14 students; (at the same time there were 21 at Canterbury)19. Notable alumni included A.L. (Lindsay) Poole, later a New Zealand Director-General of Forests and Norman Hall, who became prominent in the South Australian Forestry Department and was later on the staff of the Australian School of Forestry.

Fowleraker was appointed lecturer and head of the Canterbury school which opened a year earlier, in February 1925. There was another lecturer to assist him, F.E. (Frank) Hutchinson, a New Zealander who had graduated from the Montana School of Forestry at Missoula, U.S.A., and who had returned home afterwards. The Canterbury School provided two separate courses: a four years bachelor of forestry science comprising an intermediate year followed by three years of professional work, and a three years Certificate course for rangers at a lower standard than the degree course. Tuition provided by other departments at Canterbury included surveying, drawing, properties and strengths of materials, elementary steam (steam was then the prime forest motive power), forest geology, accounting and business administration, forest chemistry and economics. Field camps for practical instruction were held at
various places alternately in Westland and Canterbury during the spring vacation.20

The two schools battled on until 1930 when the impact of the world-wide depression became critical. The Government was paying the piper so it called the tune. The Minister of Education closed the Auckland school that year. It was a definite closure, not an amalgamation with Canterbury and so Corbin lost his job.21

Canterbury had hoped it would receive the Auckland annual grant of £1000 but this was not to be. Indeed within a few months its own grant was reduced and soon disappeared. By 1933 the annual income of the school (£195) came solely from students' fees; the expenditure amounted to £998, and on top of this there was an overdraft of over £2000. Closure was inevitable and took place at the end of the following year. The equipment was stored away, forestry books were placed in the main library and the old Ford tourer, used and abused on the practical courses, was sold for the seemingly small amount of £9. The Canterbury School had taught 50 students, of whom 12 had graduated B.Sc. for S.F. (The Auckland School graduated 9 with similar degrees).22 Notable alumni from the Canterbury School were A.P. (Prestley) Thomson (a Director-General of Forests), D. (Dave) Kennedy (a Conservator of Forests, Rotorua), G.H. (Gerard) Hocking (long-time senior forester for the Wellington Conservancy), G. (Pat) Duff (well-known mensurationist at the Forest Research Institute, Rotorua), J.W. (Jim) Syme (Deputy Mill Manager, Tasman Pulp and Paper Co., Kauerau), and J. (Jim) Lysaght (a Forest Service Working Plans Officer). Two other notables who started their courses at Auckland and finished at Canterbury were: E.A. (Arthur) Cooney (Superintendent-Secretary of the Selwyn Plantation Board) and R.B. (Barny) Moorhouse (a senior administrator with NZ Forest Products Ltd.). It seems unfair that the well qualified Foweraker was never awarded a Chair. Foweraker and Hutchinson made a good, balanced team; the former conscientious, dedicated, scholarly and kindly; the latter energetic, incisive, forthright, and reportedly an inspirational teacher. So the University of New Zealand withdrew from all forestry studies as the Government slashed spending.

The Depression affected more than the forestry schools. Forestry as a whole slumped with the rest of the country. The Forest Service itself came under threat of closure and re-absorption back into the Lands Department. No graduates from the two schools were employed during the Depression by the Forest Service on professional salaries, although a few were given work at lowly student labourer rates.23

In 1939 A.R. (Alex) Entrican became Director (later Director-General) of Forests. This dynamic man strove for the development of New Zealand forestry, it was ironic that immediately after his succession to the top job, when he saw so much needing to be done to lift the Service out of the trough it was sucked into during the Depression, World War 2 commenced. Many of the reforms and advances that he wanted had to await the end of hostilities before they could be fully implemented. Education and training in forestry fell into that class.

Indeed Entrican's views on forestry education and training in New Zealand were firmly in 1939 but it was not till 1946 that they were elaborated in the Forest Service annual report. The underlying premise was that training was required in all branches of the Service and at all levels, from skills for forest workmen to graduate training for professionals and during his directorship, which lasted 22 years, he strove to bring this about. A 20 years staff expansion programme was set in which technical staff were to be quintupled and field staff trebled, with training correlated with recruitment.24

Entrican estimated that the Forest Service would require on a long-term basis an annual intake of six graduate foresters with two to four more being needed by local bodies and private firms. In addition the Forest Service would need annually at least six sub-graduate forest rangers with other employers taking a further one or two. He was firmly of the view that professional foresters were best trained by their first taking B.Sc. degrees in science and then learning the tenets and practice of forestry in a two-year post-graduate programme. (The term post-graduate used here indicates that entrants had to have a prior B.Sc. degree; it does not necessarily imply that tuition in the professional classes would be at post-graduate level.) Ranger entrants into the Service would qualify for their forestry training with an apprenticeship in the field. Their formal forestry education would imparted at a lower level than the graduates.25

Entrican's concept of staff recruitment and advancement in forestry was based on egalitarian principles. He envisaged the senior administrative jobs in the Forest Service as being open to people in the three personnel divisions: professional (graduate foresters and engineers), general (rangers etc), and clerical. Only with such equal promotional opportunities, he claimed, could maximum efficiency be achieved. Another theme was that all staff, whatever division they were in, had to have, "a basic forestry education. Forest foremen and leading hands needed it to fit them for appointment to officer grades of the General Division. Likewise officers of ancillary professions and of the Clerical Division required it for advancement to administrative positions. General and Professional Division officers needed it. In addition, short courses in departmental administration to furnish them with a working knowledge of staff and accounting, stores, and other aspects of office practice.26 It was a level playing field for all staff. It was also the antithesis of the pattern in most of the Australian state forestry departments where, with no or few non-graduate rangers, able graduate foresters had a clearer route to the middle and top management positions.

Entrican put much weight on the desirability of Forest Service staff in all divisions being associated during the process of training. Presumably he saw this as productive of interdivisional tolerance and esprit de corps. "Therefore professional trainees shall take B.Sc. on a part-time basis, allowing contacts with office staff during university year, as well as field contacts during vacations."27

The climax of Entrican's staffing plan was the centralisation of training of all ranks in the Forest Service at the Forest Training Centre at Rotorua where the teaching effort could be augmented by research staff from the newly established Forest Experiment Station (soon to be called the Forest Research Institute). He elaborated on the suitability of this arrangement for the proposed two-year forestry tuition for graduates, pointing out that the range of subject matter required would mean six highly trained and experienced professionals, a number which would be out of proportion to the comparatively few students entering at intakes of 8-10 per year. Only by supplementing the proposed two full-time graduate teaching staff at the Training Centre with part-time teachers from among the scientists at the Forest Experiment Station could the required curriculum for professional forestry training be covered. He claimed that such a marshalling of generous teaching resources in forestry would be quite beyond the capability of the universities who would not be able to contemplate such high staff/student ratios.28

Of course if the Australian pattern of management staff being...
predominantly professional (graduate) foresters, - as was common then in many forest services around the world - had been followed in this country, the situation would have been different. Then the total potential annual intakes of 15-18 students (these numbers representing Entrican's prospective foresters plus prospective rangers) could have been enough to justify staffing adequately an undergraduate university course. Indeed, in the New Zealand Forest Service graduate foresters seemed to have been discriminated against to a certain extent as they were debarred from many in-charge middle-management positions. It could be argued that Entrican's insistence on egalitarian departmental promotion and the frequent relegation of graduate foresters to technical advisory roles reduced the demand for them, and so impeded for a lengthy period after World War 2 the development of a viable undergraduate university course in forestry. In those years the Forest Service dominated New Zealand forestry and tended to set the staffing pattern for the rest of the country.

Entrican planned that the following would be taught at the Rotorua Forest Training Centre in 1947:

1. A two-year post-graduate course for B.Sc. holders.
2. A one-year diploma course for forest rangers who had had sufficient experience in the field. (This course was later lengthened and raised to a high standard, becoming eventually the New Zealand Certificate in Forestry - NZCF.)
3. Short courses for junior staff, mainly of an elementary nature.
4. Refresher courses of an advanced nature for more senior officers.
5. Administrative courses for clerical, general and professional officers aiming for promotion to administrative jobs.29

The post-graduate forestry course for B.Sc. holders did not eventuate at Rotorua in 1947, nor in any subsequent year. Entrican had envisaged the postgraduate and diploma courses coming under the control of and being wholly responsible to the University of New Zealand but that, in addition, there would be a board of management on which the Forest Service would be well represented.30 (The administrative difficulty is apparent.) The University did not want a bar of this. In December 1946 Canterbury University College wrote to the Registrar of the University of New Zealand rejecting the Forest Service scheme, pointing out that it would mean the University permitting, "its work to be done outside its constitutional bounds and responsibilities, and the principle of academic freedom would be fatally compromised". In the view of Canterbury the school of forestry must be established wholly within the university system.31

Stalemate ensued. Consequently departmental B.Sc. holders, most the product of part-time study while working in the Forest Service offices in Auckland, Wellington and Christchurch, were steadily sent overseas as they graduated, for a further two years study of professional forestry. The majority (about 40) went to Canberra; smaller numbers went to Aberdeen, Edinburgh, Bangor and Oxford. One went to Nancy in France and a couple to Vancouver.

Canterbury pushed its own barrow further. In 1947 it wrote to the Prime Minister (Peter Fraser) urging the Government to re-open the Canterbury school.32 The whole matter was now again firmly in front of the Senate of the University of New Zealand. In 1947 its Academic Board advised the Senate to re-establish an undergraduate school at one of the University Colleges.33

Meanwhile, the professional forester body in this country, the New Zealand Institute of Foresters (now Forestry), had been watching developments closely. It had been critical of the continued failure of the Government and the University to finalise the re-establishment of a professional school of forestry. The Institute complained that it had not yet been approached for advice on the issue. It realised however that before it could be involved it must formulate its own policy on higher forestry education. Accordingly in 1947 it set up a committee to examine the matter and recommend educational policy. The committee itself found it hard to reach unanimity. Indeed it was able to agree on only two points; entry to a school should be for graduates only and the school should be controlled entirely by the University. But the Institute Council, in the face of such uncertainty, did not feel able to make any pronouncement without wider consultation. Accordingly it sent out a questionnaire to its members to try and achieve a sharper focus on professional opinion. The result helped a little: 73% favoured a school of forestry being re-established in New Zealand but opinion was almost equally divided between an undergraduate and a graduate school; Rotorua was preferred as the location of either an undergraduate or a graduate school. The Institute then considered that it had achieved a sufficiently clear-cut majority opinion and submitted it to the University Senate with a plea for an early decision on the matter.34

The University Senate, however, sought counsel from further afield. Early in 1948 it asked Professor S.M. Wadham of the University of Melbourne to advise them on professional forestry training. Wadham described himself as, "primarily an agriculturist and an ecological botanist with an interest in economics, with special reference to land utilisation". His link with forestry was that he had been for some years Chairman of the Board of Examiners at the State forestry school at Creswick, Victoria, where training was essentially practical and which was recognised by the University of Melbourne as contributing to its degree of Bachelor of Science in Forestry. The Board had the responsibility of selecting and examining the Creswick students and supervising their training. Professor Wadham did not waste any time in his commission. He arrived in Wellington on 10 February, 1948, travelled to Canterbury, Auckland, Massey and Rotorua, and met and consulted a range of stakeholders, including the Rotorua local branch of the Institute of Foresters. His ten page report was completed on 2 March, 1948. The whole exercise took less than one month.
Wadham recommended that a four-year undergraduate course, with some obligatory vacation work, should be set up at Auckland University College. It was a comprehensive report, including recommendations on curricula, teaching staff (Wadham envisaged four full-time plus part-time contributions from other university departments). He appears to have had no objection to practical tuition being provided by the Forest Service at Rotorua, indeed he regarded Rotorua as the best location for practical work; but he was against the students spending more than one year there, ideally the third. He added, "if the State Forestry Service is prepared to arrange for its officers to undertake the teaching in all the subjects of the third year and for the general supervision and accommodation of the university students of that year, a great economy can be effected."35

Entrican was not enthusiastic about the Professor's advice. He had been overseas while Wadham was in the country and so missed him. Wadham had, in his absence, consulted the "acting director" as well as other senior Forest Service officers. Before the month was out Entrican had sent his comments on Wadham's report to the Senate. He pulled no punches: "Anything less than a graduate school for its graduates, to undertake the teaching in all the subjects of the third year and for the general supervision and accommodation of the university students of that year, a great economy can be effected."35

Entman had been overseas as well and Wadham had, in his absence, consulted the "acting director" as well as other senior Forest Service officers. Before the month was out Entman had sent his comments on Wadham's report to the Senate. He pulled no punches: "Anything less than a graduate school is unacceptable to the Forest Service. This report is in error in saying that forestry needs those who are of higher grade than has been envisaged by Professor Wadham." He pointed out too that the professional training programme instituted by the Forest Service had been predicated on the establishment of a departmental graduate school for which 57 trainees had already been recruited to study for their B.Sc. degrees. Six had completed and were available for their professional training this year (1948); a further 13 were expected to qualify for 1949, seven for 1950, 4 for 1951 and seven for 1952. Finally, he asserted that the development of higher forestry education and forestry research was so important to the country that the Government would be prepared to have the whole matter looked at anew by arranging for an internationally famous forest officer like Professor Champion from the Oxford School to come to New Zealand, perhaps an oblique criticism of Wadham's status.

It was to no avail. The University of New Zealand did not want a Forest Service school at Rotorua which, it judged, would inevitably be dominated by the department and its forceful head. At their meeting of August 1948 the Senate resolved that: "... the School of Forestry be established as part of the Auckland University College and that the extent to which any portion of the course be taken at Rotorua be left for decision by Senate after the appointment of a Professor of Forestry."36

But then, as if exhausted by the effort to re-establish in principle the Auckland School of Forestry, neither the Senate nor Auckland University College seemed to want to do much about it. Nor, and more to the point, did the Government. Meanwhile, from 1949 and for the next 20 years Forest Service bursars proceeded overseas. In 1955 a bursary scheme to send suitably qualified recruits from the private sector to overseas schools of forestry was offered by the Government. These bursaries covered about half the costs and it was necessary for the candidates to get supplementary support from their employers. Only a few of these bursaries were taken up.38

Professional forestry education in New Zealand did not become a reality until a new Canterbury University School of Forestry opened its doors for professional classes in 1970. The Treasury played an initiating and catalytic role in this development when in 1963 it recommended to the Minister of Forests that, in view of the cost in overseas funds of sending graduate Government bursary-holders to forestry schools in other parts of the world, he arrange for discussions with the universities on the economics and feasibility of re-establishing a forestry school in New Zealand.39 What happened following that is another story.

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