

Articles

An early history of the Department of Botany, University of Otago, 1924-1945

Mary Anne Miller

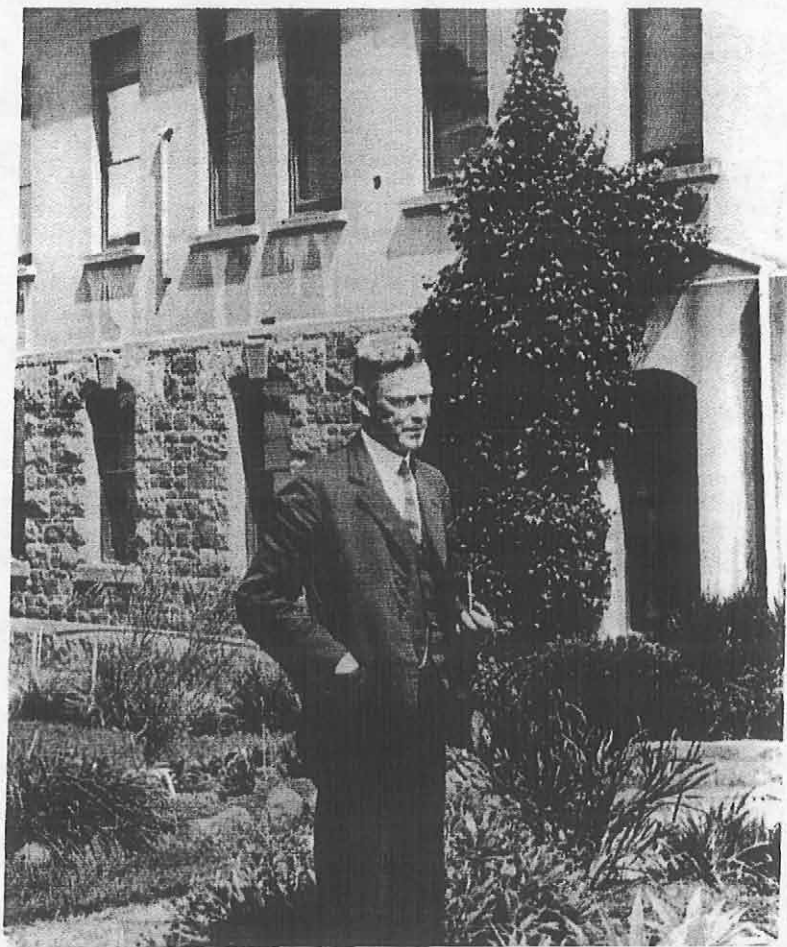
The Department had its origins with the appointment of a full-time lecturer in botany in 1924. However, botany had been taught at the University of Otago since 1877 when F. W. Hutton (1836-1905) was appointed Professor of Natural Science. By 1880 Hutton was ready to put his battles with university hierarchy behind him, leaving the newly named Chair of Biology to Thomas J. Parker (1850-1897). Much influenced by T. H. Huxley he, like Hutton, favoured Darwin's evolutionary theories, which made for turbulent early years at Otago. He was described as a first-rate teacher and researcher and when he died prematurely two of his students were able to take over the teaching of zoology (William Mawson) and botany (John Smaillie Tennant) before another world renowned scientist and lecturer, William B. Benham (1860-1950), arrived in 1898 to fill the Chair.

As biology student numbers increased, due to a demand for medical officers in World War I and then demobilization, so did Benham's requests for more assistance and better facilities. Assistance came with the appointment in 1919 of Mary Winifred (Winnie) Betts, a brilliant biology student (her MSc thesis *The Autoecology of certain plants of the Peridotite Belt, Nelson* had been presented in three parts to the Otago Institute beginning 1917). By 1920 the biology extension to the Museum building was complete and it included a laboratory for the 10 enrolled botany students.

Winnie was employed to teach first year science, medical, dental and home science students taxonomic botany as well as nurturing a small degree group, including the first two botany Honours students, Elma M. McCarthy and Earl F. Northcroft. She was one of a few woman teachers at Otago Boys High School (there was a shortage of masters due to the War) before being employed by the University. She left at the end of 1923 to follow her husband, A. C. Aitken, the mathematician, to Edinburgh. Her interest in botany continued in Scotland where she tutored and created a New Zealand garden in which the family entertained local students and visiting Kiwis.

With the appointment in 1924 of the Reverend Dr John Ernest Holloway (1881-1945), the fledgling Department had a great start, as Holloway was both a highly regarded researcher and dedicated teacher. However, conditions for Holloway were far from ideal, even described as bad¹. He was given one room in the basement of Otago Museum and that was to serve as lecture theatre, laboratory and office for many years to come. Other resources were just as scarce. He was the sole member of staff so all duties fell to him – collecting, preparing and displaying class materials (considered "lab boy" duties in other establishments), administration, teaching at all levels and research support.

Equipment, apart from microscopes, was almost non-existent. Geoff Baylis records² the delightful story of Holloway making do with microscope lamps made from cocoa tins because, although an equipment fund was available (at £50 per year), he saw no point in using it all if working space and lack of assistance were limiting factors. A modest protest from a modest man. These lamps were still in use in the 1960's! He did, however, inherit beautifully painted cotton-backed teaching charts made in Germany about 1910 from the biology resources, and equally impressive papier mâché, plaster, wood and wax articulated models made in the 1860s-1880s. Holloway's lantern slide collection and dried materials are still in the Department, so we have a fair idea of how undergraduate teaching was illustrated in those early days. There was also one glasshouse and a small garden with urinal. One assumes the ladies needs were accommodated in the Museum facilities.



Rev Holloway in his newly established native garden behind the Otago Museum, c.1931

Holloway brought with him a fine collection of plant fossils that had its origins in the coal measures of South Yorkshire. Being curate at Barnsley from 1909 to 1911 he was able to exploit the locality to further his interest in primitive lycopods and ferns. The collection was subsequently augmented with New Zealand and other overseas samples. Holloway's spare time and holidays included plant collecting excursions, with some specimens for the herbarium, others live for the department garden. With a special bag, which is still in the Holloway family, hung over his shoulder he set out to enhance a collection that included samples obtained from many overseas contacts, including the famed gymnosperm expert, Professor C. J. Chamberlain from the University of Chicago. Included in the bag were his tobacco pouch and a tie. The tie, so he could hurriedly make himself presentable should he encounter anyone in remote locations.

Undergraduate classes were small so few took their studies to higher levels, but those that did made significant contributions to science, with seven of Holloway's Honours students becoming professional botanists. Of the 10 students enrolled in 1924 three were Dunedin Botanic Garden's trainees including Joan Hogg, the first woman gardener employed there. Also, an extra nine students received a short series of lectures as part of Home Science and Agriculture courses. Non-university bodies were also to benefit from his lectures. He gave the Cawthron Lecture in 1936 and entertained local groups with illustrated talks on botanical topics.

Needless to say Holloway's own research at this time was limited but he did manage to publish nine papers in the later years as Lecturer-in-Charge, as the Head of Department was then called, to which he was promoted in 1937. His interest in evolutionary processes and knowledge of New Zealand primitive plants greatly influenced the emerging talent. Ella O. Campbell (1910-2003) and Betty Molesworth Allen³ (1913-2002) would gain international recognition for their work on liverworts and ferns respectively. Betty Molesworth spent time with Holloway while on leave from her job at the Auckland Museum. In 1938 the University finally recognized Holloway's contribution to science and teaching when Ella became the much-awaited Assistant Lecturer, allowing him further time for research and some travel. Probably the most notable student of this era was Holloway's son John T. Holloway (1914 -1977) who became New Zealand's foremost forest ecologist.

As World War II progressed Holloway's health declined and he retired at the end of 1944. He is remembered with much affection not only for his dedication to botany but for his devotion to the student's spiritual needs as well.

The year 1945 was one of change for the Botany Department and if not for the persistence of three recent women graduates the Department may have folded. Ella had also left at the end of 1944 to teach plant morphology and anatomy at Massey Agricultural College, becoming their first woman lecturer. She was replaced by Brenda F. Slade (later Shore, 1922-1993) who had only graduated that year. With the help of Betty Batham (1917-1974) and Margaret Finlayson, both of whom happened to be researching on campus and unable to further their studies overseas due to wartime restrictions, the Department continued to function until Geoffrey T. S. Baylis (1913-2003) arrived in August to replace Holloway. He came straight from his World War II

Royal Navy exploits and made a dashing figure in his uniform. In 1944 the Faculty of Science and Arts separated and once again an increase in student numbers resulted from a wartime demand for scientists. When hostilities ended numbers taking botany soared to 51, initiating a new era in teaching botany at Otago. A new glasshouse went up plus there was a purpose built laboratory for senior students.

My thanks to Ann Wylie for comments and clarifications.

References:

1. Lang, W.H. 1947: "John Ernest Holloway". *Obituary Notices of Fellows of The Royal Society*. No. 15 Vol. 3. pp. 424-444.
 2. Baylis, G.T.S. 1998: "John Ernest Holloway". *The Dictionary of New Zealand Biography 1921-1940*. Department of Internal Affairs: Wellington.
 3. TimesOnline, 2002: "Betty Molesworth Allen". Obituaries, Oct 31, 2002.
- Botany Department Roll Books 1920 – 1994, Botany Department.
- Campbell, E.O. 1946: *The Rev. J.E. Holloway F.R.S., F.R.S.N.Z., D.Sc.* Unpublished obituary from the Holloway family archives.
- Diana 1971: "Obituary, Mrs A.C. Aitken" *Evening Star* May 14, p.9.
- Dunlop, Eric 2003: *The story of Dunedin Botanic Garden*. Friends of the Dunedin Botanic Garden Inc: Dunedin.
- Faculty of Arts and Science Minute Book 1914-1933, Hocken Library.
- Fenton, Peter 2003: pers. comm. on Winnie Aitken, nee Betts.
- Morrell, W P 1969: *The University of Otago: A centennial history*. The Otago University Press: Dunedin.
- Professor's Progress – photograph and newspaper cutting albums of the Geoff Baylis and Peter Bannister years, Botany Department.
- Thompson, G.E. 1920: *A History of the University of Otago 1869-1919*. J. Wilkie: Dunedin.
- Thomson, Jane (ed.) 1998: *Southern People: A dictionary of Otago Southland Biography*. Longacre Press: Dunedin.

(The above article was written for the 80th anniversary of the Department of Botany, University of Otago. If you are a current or former student or staff member of the Department and would like to be part of the anniversary celebrations later in the year, watch this space. There are also two displays, *Botany with the Revd Holloway 1924* and *Geoff Baylis – a biography*, in the foyer of the Department that everyone is welcome to view.)

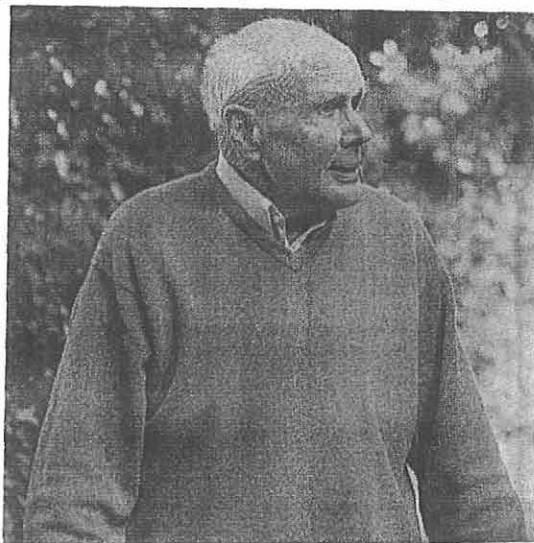


Photo *Otago Daily Times*: Geoff Baylis in his garden, 2002