

## Alma Theodora Lee (1912 - 1990)



Alma Lee was among those who helped lift systematic botany in Australia from the low point it reached in the 1920s and 1930s towards its much more vigorous present state. Her death on 20 October 1990, aged 78, is a loss to her colleagues and to the ranks of Australian botanists.

Alma was born near the tiny northern New South Wales town of Tingha, the daughter of gold prospector and dredge operator, Wallace Melvaine. Her parents valued education highly and, partly because of this, moved to Sydney to enable her to be educated at Ascham School, to which she had won a scholarship. Her interest in plants had developed early in the still wooded countryside around Tingha and she flourished at a school that encouraged independence of mind.

At that time New South Wales had only one university and the Botany Department of the University of Sydney was headed by Professor T.G.B. Osborn (later Professor of Botany at Oxford, England). As an undergraduate she joined a department that had attracted a group of lively-minded students who were to take up important posts, including Bob Robertson (later Sir Rutherford Robertson, member of CSIRO Executive and leading adviser to the Australian Government on scientific matters), Lilian Fraser (eventually Chief of the N.S.W. Department of Agriculture Biology Branch), Joyce Vickery (deputy to the Director of Sydney's Royal Botanic Gardens), Alan Burges (Professor of Botany, Liverpool, England) and Neville White (Professor

of Plant Pathology at the University of Sydney). As undergraduates and research students they made excursions to Bulli, Colong Caves and especially to Barrington Tops and its rainforested slopes, where Fraser and Vickery made pioneering ecological surveys. These trips, in the unreliable cars that a few students could afford, greatly broadened her interest and knowledge of plants and plant communities. Discussions among these fellow students and with the zoologist Consett Davis seem to have influenced Alma Melvaine almost as much as her formal university tuition.

It was a time when ideas of evolution, genetics and systematics were coming together in an intellectual ferment, and works by Dobzhansky and Mayr were new and influential. Decades later, she maintained that her interest in genetics and biological species concepts had made her task as a systematist harder, and indeed she sometimes saw interspecific 'intergrades' where subsequent workers would see a pattern confused by an unrecognised 'new' species.

Her interest in gaining an understanding of species and subspecies in terms of population variability, hybridism, environment and evolutionary concepts was Alma's hallmark and a major part of her importance in the development of modern systematic botany in Australia.

After graduating with majors in botany and geology she spent a period as a scholarship-funded research student, still at the University of Sydney. She was unsuccessful in attempts to elucidate life cycles of *Psilotum* and *Tmesipteris* and took up studies of soil algae for her M.Sc. degree. While still a student Alma had a part-time position at the National Herbarium of New South Wales, part of Sydney's Botanic Gardens. She shared with Alan Burges both the position of 'Honorary Curator of the Cryptogams' and the annual stipend — the meagre sum of about £50. The herbarium, separated organisationally from the Gardens at that time, was a dismal place, lacking reasonable equipment, intellectual stimulation, and links with universities. There was very little opportunity for field work, and visits to other botanical institutions were very rare.

Then followed a year at the Plant Introduction Section of CSIR (later to become CSIRO) in Canberra. On resigning from that position she recommended to the Executive of CSIRO that the Division of Plant Industry should set up a herbarium, and about a year later Nancy Burbidge was appointed with that aim and CANB (Herbarium Australiense, subsequently renamed the Australian National Herbarium) was set up.

In 1938 Alma returned to the Herbarium in Sydney as a staff botanist. Much-needed change had started there and in the Gardens by that time. Robert Henry Anderson had replaced Edwin Cheel as Chief Botanist and Joyce Vickery, an associate of her university days, was a recent appointee. Much of Alma's work involved plant identifications but she took up investigations on the legumes and soon the revision of *Swainsona* was under way. The revision appeared in 1948 and was perhaps the first Australian botanical revision with a modern flavour, as evidenced by reference to it by Davis & Heywood, *Principles of Angiosperm Taxonomy* (1963), in a short list of examples of good taxonomic method and presentation. Mrs Joy Thompson, working on *Swainsona* forty years later and with a greatly increased range of specimens available, has commented on how well Alma's taxonomic judgements still stand in the light of modern knowledge. Another valuable revision largely sorted out the species — but not all the nomenclature — of *Typha* in Australia.

Leaving the Herbarium in 1947 to raise her two sons, Alma later returned in the early 1960s as a part-time botanist. Such positions were poorly paid but kept the Herbarium's research output alive during years when the time of permanent staff

was largely taken up with identifications and curation. After leaving paid part-time employment in 1982 she continued as an Honorary Research Associate of the Gardens until 1986. In these capacities she continued with the Fabaceae and published on *Bossiaea*, *Psoralea*, *Crotalaria*, *Platylobium*, *Templetonia*, *Hovea*, *Aenictophyton* A. Lee and others. She did important work on *Lupinus* with the Western Australian plant breeder J.S. Gladstones and on *Hovea* with Joy Thompson. She was senior author of the second part of the general treatment of Fabaceae in the *Flora of New South Wales* series then being produced by the Herbarium. She also turned to the monocots *Lomandra* and *Xanthorrhoea*, both notorious 'problem groups'. Her work on *Xanthorrhoea* in eastern Australia was a vast break from the confusion in earlier publications on this genus and proved a firm foundation for later, more extensive revision by Dr David Bedford.

Alma was always helpful in sharing information, and welcomed the new investigations of others who used her work as a basis but extended it. Indeed, only a few months before her death she expressed enthusiasm for the possibility that others might use macromolecular studies to resolve some of the problems she had found intractable at least 50 years earlier.

Apart from botany and her family, her interests included playing the University of Sydney's carillon while a research student, carpentry, ceramics and playing the recorder. Long after 'official' retirement, while an Honorary Research Associate, she could often be heard playing the recorder with much younger staff members at lunch time. The bushland and plants remained a major enthusiasm. She lived at Hornsby near Sydney's outer suburban limit for much of her life, at the edge of the bush, and in her last years chose to live at Bayview largely because of its bushland setting.

In 1941 she had married David Lee, an entomologist at the University of Sydney. Most of her sixteen publications were under her married name. They separated in 1974 and later divorced. David Lee died a few days before she did. She is survived by sons James and Alister.

Alma Lee believed that an insatiable curiosity about nature was the driving force for systematists. All her life she retained an independent spirit and an impish sense of humour. She will long be remembered for her thoughtful, friendly, lively approach to life, her generous nature and for the solid body of work that she produced.

### **Barbara Briggs**

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