

JAMES ALEXANDER MacDONALD
BSc, PhD(Edin), DSc(StAnd), FIBiol

James Alexander Macdonald (popularly known to his colleagues and friends as Jay) was born on 17th June 1908 in Dingwall, Rosshire and died in his 90th year on 26th April, 1997 in St Andrews where he had spent most of his working life. His father, also James Alexander Macdonald, was a graduate in Experimental Physics from the University of Edinburgh and became the first rector of the new Leith Academy in 1897 when he was also elected a Fellow of the Royal Society of Edinburgh and eventually retired as HM Chief Inspector of Schools for the Highland Division. The Macdonald family of three sons and two daughters were all active in learning and public service. Agnes received an OBE for editing the 1972 edition of *Chambers Twentieth Century Dictionary*, Margot taught music at Aberdeen High School for girls and Robert followed his father's footsteps in becoming an Inspector for Schools and finally became Assistant Secretary in the Department of Education and was the author of *Scottish Pioneers of Education Overseas* (1981).

Jay, due to indifferent health when young, had most of his early schooling at home in Kilmacolm from his mother and then went to Inverness Royal Academy where he received his initial stimulus to study Botany from Robert Pealling who had been assistant to Professor Bayley Balfour in Edinburgh. His health had now recovered and he became captain of rugby as well as playing cricket and hockey for the school. The latter sport he pursued with considerable success later, when a student at Edinburgh, where he became a Hockey Blue, 1931-33. At Edinburgh University Jay studied initially agriculture, but was influenced by Drs J R Matthews and M Wilson to convert to Botany and took a joint honours degree in Agriculture with Botany. He then remained with Wilson in Edinburgh until 1935 as a research student in mycology gaining his PhD for a thesis on *Polyporus betulinus*. In that year he married Constance Mary Simmie (Connie) second daughter of James Duff Simmie and Anne Stuart McWilliam (Inverness) by whom he had one daughter (Anne b 24.1.40).

While a research student in Edinburgh, as well as working as assistant to Dr M Wilson, Jay also became assistant lecturer in Botany at the East of Scotland College of Agriculture with Dr E Wyllie Fenton, 1932-35. Then in 1935 came the move to St Andrews when he was appointed as lecturer in Botany with Professor R Graham. His own reminiscences of the appointment encapsulated both the formalities and the smaller world of University life in those days. In order to expedite the appointment Professor Graham conducted the necessary formal interview in the waiting room of Perth Station.

War service in the RAF took him (like many scientists) into radar, first as a commander of units in Scotland and latterly in India and Malaya where he served as Flt. Lt. and Adjutant to Signals H.Q.

On returning to St Andrews after the war Jay resumed his active interest in mycology and particularly in plant pathology. In 1947 he received the Sykes medal from the University of St Andrews for his DSc thesis 'The pathogenic fungi of the Tay area.' His textbook on fungi, *Introduction to Mycology* (1951), was much used by undergraduates, not least because it was a succinct and informative account that could be read from cover to cover. He became Professor of Botany and Keeper of the Botanic Garden in 1961, posts which he held until his retiral in 1977. In the early 1960s Jay was instrumental in persuading the University of St Andrews to create a new Botanic Garden and, together with J L Mowat and subsequently R J Mitchell, developed a 17 acre empty field site to the south of St Andrews into a garden of great botanical richness and outstanding beauty.

As one of the last Professors of Botany in modern times Jay had the knowledge and practical experience of both British and exotic plant species necessary for the creation of a true botanical garden, where the interest was primarily in the species-collection, rather than just a public display of horticultural marvels. In many ways he personified what the public expected of a complete botanist. Queries about the identity of plants, whether wild or cultivated, healthy or diseased, were always answered with care and exactitude and a complete diagnosis of whatever fungus might be affecting them. In the Department he fostered this interest in plants and a number of his research students, particularly those from abroad, returned home to pursue successful careers as mycologists. As a Professor he belonged to the era before the duties of the post included the expectation that they embraced the establishment of a large and expensive research school. As a Head of Department, and subsequently as Dean of Science (1967-70), he was always at the service of others and devoted much time and energy to the welfare and interests of students, in the firm belief that undergraduate teaching was the first obligation of a Professor. In this role he always gave the entire first year Botany lecture course alone and unaided, and also supervised and took part in all the practical classes and outings. His former students always remember him as someone who was on their side and who made the Botany Department their place in the University. His interest in student activities extended beyond the classroom. In 1984 he published a carefully researched account of what had happened to those who had graduated in Botany since the subject was first taught in St Andrews by John Hardy Wilson in 1887 (*Plant Science and Scientists in St Andrews* J A Macdonald, 1984). He was an international student hockey umpire and Honorary President of the student Hockey Club for some years, as well as serving as Treasurer and then Chairman of the St Andrews University Athletic Union. His many interests outside the University included Horticulture and he served as a member of the governing body of the Scottish Crop Research Institute and President of the St Andrews Horticultural Society. A keen golfer (Captain of the St Andrews New Club 1973) and bridge player throughout his life he was also in his younger days an enthusiastic amateur actor (an interest inherited professionally by his daughter Anne). On his retiral from the University he was awarded the Queen's Silver Jubilee medal, made a Professor Emeritus and given the rarer honour of planting a tree in St Mary's Quadrangle. The latter honour was highly appropriate as he was the author of two editions of an informative guide book to the many fascinating species of trees to be found in St Andrews (*Trees in St Andrews*, 1971). Throughout a long and active retiral, as well as keeping in touch with his former Department, Jay pursued his interests of fishing, golf, gardening and bridge with an energy that became ever more legendary as he aged.

R M M CRAWFORD