



Donald Pigott (kneeling) examining a peat core on Tarn Moss, Malham c. 1957. His first wife, Margaret, is immediately on his left.

PROFESSOR DONALD PIGOTT

1928–2022

In a time of increasing specialisation, few British plant ecologists have been as influential on such a broad front as Professor Christopher Donald Pigott, who has died at the age of 94.

He served the *Journal of Ecology* as editor of the *Biological Flora of the British Isles* and published 18 papers of his own in it over 66 years. Donald was a champion of a rigorous experimental approach that could address clearly defined questions. This inevitably involved detailed studies of individual species (autecology). His early pursuit of an understanding of climatic limitation led to him being a pioneer of the systematic mapping of individual species distributions. He was also co-director and a leading light of the National Vegetation Classification (NVC), a 16-year phytosociological project involving four universities that led to a comprehensive and systematic catalogue and description of the plant communities of Britain. Other prominent contributions included considerable scientific support for the growing environmental conservation movement, and for forestry as an academic discipline. Not least, his influence can be followed in the scientific achievements of the many doctoral students whom he trained, most notably Professors Philip Grime FRS and Paul Jarvis FRS.

As a member of a distinguished generation of Cambridge botanists that emerged after the Second World War, Pigott's roots were deeply embedded in British plant ecology. He was the last surviving ecologist to have demonstrated his research in the field (experiments on sheep grazing in Padley Wood, Derbyshire) to Sir Arthur Tansley FRS, who had been the first president of the BES and founding editor of the *Journal of Ecology*. Donald was editor of the *Biological Flora* series (a feature of the *Journal of Ecology* since 1941) in its formative years, relinquishing the post in 1975 after more than 20 years. He contributed to the series as author and illustrator for longer than anyone else, publishing his first species account (*Thymus* spp.) in 1955, and his last (*Tilia platyphyllos*) in 2020 at the age of 92. He also served on BES Council in the 1970s, perhaps a more demanding role in the days before the Society had paid staff. He was joint editor of the *New Phytologist* for a number of years from 1961 until his duties as foundation chair of biology in the new University of Lancaster became too onerous.

Donald went up to Emmanuel College, Cambridge in 1946 and took a first in 1949. His phenomenal botanical knowledge was noticed by Dr Max Walters (a future director of the Botanic Gardens there), who became a lifelong influence and friend. Having been awarded a government research studentship and a Shell Scholarship in geology, he changed his intended research topic but was allowed to keep the Scholarship nevertheless! At the suggestion of Walters, Donald spent the summer of 1949 first in Uppsala and then Helsinki, where he was the guest of Jaakko Jalas who was part of the group mapping the distributions of vascular plant species in Europe. This influenced his PhD work at Cambridge, carried out under the supervision of Professor (later Sir) Harry Godwin FRS, on the cytotaxonomy of British *Thymus* species. He made distribution maps on the Fenoscandian model with small black circles located on the military km grid. Maps based on the 10 x 10 km squares of the National Grid were adopted for the first *Atlas of the British Flora* in 1962 and have now become a ubiquitous mapping standard.

While in Cambridge Donald had been exposed to the developing field of palynology. He became interested in extant species whose pollen had been identified in the Late Glacial by Godwin. An example of this was Jacob's Ladder (*Polemonium caeruleum*) which was still native at its southern limit, on wet, north-facing limestone cliffs in Derbyshire. Appointment to a lectureship at Sheffield in 1951 afforded the opportunity to study the contrasting climates of north- and south-facing cliff faces. To his surprise the north-facing shade temperatures in the growing season matched those of southern Greenland. He complemented this with a similar study of Dwarf Thistle (*Cirsium acaule*) at its northern limit, where it was restricted to the south-facing limestone slopes. Much of his subsequent work over many years has been an elegant elucidation of mechanisms of climatic limitation in terms of its proximal causes. Trees and forestry have featured strongly in this research both before and after he retired. Donald and his second wife Sheila travelled widely in Europe, North America and China to meet fellow scientists, to visit herbaria, but most importantly to observe lime species in the field. Donald became an undisputed international authority on Lime trees: his *Lime-trees and Basswoods: a Biological Monograph of the genus Tilia*, published by Cambridge University Press in 2012, is recognised as the definitive treatment. Sheila did much to help Donald bring this monograph to press. Their garden in Cartmel boasts some 20 Lime trees, with species from around the world, including one of Donald's own naming, *Tilia concinna* Pigott

In 1964, appointed head of the biology department at Lancaster University, Donald and Dr Derek Ratcliffe, Chief Scientist of the Nature Conservancy Council, instigated a project to classify plant communities, with the aim of underpinning scientific nature conservation and developing a proper understanding of vegetation ecology. The product was eventually published in five volumes (edited by John Rodwell) by Cambridge University Press; it is now the basis for most vegetational surveys in Britain and likely to remain so for a long time.

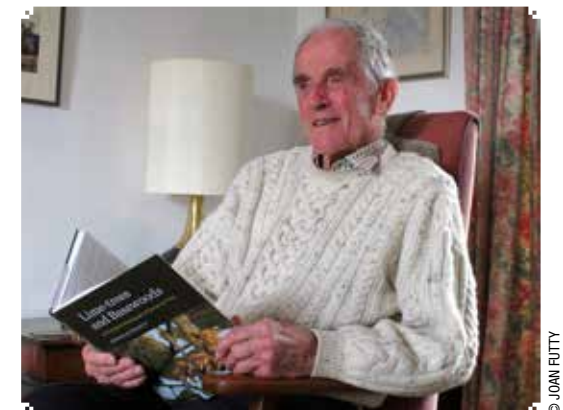
Donald espoused important conservation causes. After the notorious construction of Cow Green reservoir in Upper Teesdale was proposed in 1964, he was an expert witness to the parliamentary select committee that the Bill was referred to, having been the author of the only major study of the plant communities of the area (published in the *Journal of Ecology* in 1956). As the waters rose, he led an emergency ecological investigation into the relict populations of rare plants on the sugar limestone and mitigation of the threats to them. Much valuable information accrued but, sadly, the destruction could not be averted. Nevertheless, the controversy was a turning point in the sense that subsequently more weight was given to environmental issues in major construction projects.

The final phase of Donald's remarkable career began when he succeeded his mentor Max Walters as Director of the Cambridge Botanic Garden in 1984. He returned to a Professorial Fellowship at his old college, Emmanuel. Tenure at the Gardens was dominated by a long war of attrition to preserve the gardens as an important independent resource for teaching and research. Laboratory scientists had designs on its funding and saw its future more as a recreational amenity. Ultimately, he prevailed but always regretted the toll it had taken on his own research.

Donald will always be remembered first and foremost for his work on *Tilia*, and not least for his vital role in bringing the National Vegetation Classification to a successful conclusion. His broader contribution to plant ecology has been, and will continue to be, considerable through his many papers and his influence on distinguished graduate students. In this his strength lay in acute observation of the countryside and its plant communities as a starting point to experimental approaches. Anyone fortunate enough to have been in the field with him will testify to his inspirational insights.

We extend our condolences to Sheila, his daughter Julia Hoggard and their families. We also thank Sheila and Julia very much for their considerable help in the preparation of this obituary. ✨

Anthony Davy and John Lee



© JOAN FITTY