



# In Memoriam: John Roger Flenley

In Memoriam: John Roger Flenley (Figure 1)

Born July 15, 1936 - Died June 22, 2018.

"Ahhh! Now I have a theory about that!" This was the cue for John's students to sit up and take notice, for what would follow would either be a tongue-in-cheek yarn or his latest scientific idea. John was so imaginative and full of new ideas that sometimes it was hard to know if he was pulling your leg or being absolutely serious.

John was born in Ormskirk, a small town in Lancashire, but during his formative years the family lived in Crosby, on the north edge of Liverpool. His household took the Sabbath day very seriously. According to John, the only activity permitted other than those focussed on religion, was botany, as it was considered a sufficiently harmless and unexciting pastime. John's plant guide must have been well used for it was missing the English key to plant names at the back, with the result that he developed both an early passion for botany, exploring in particular the sand dune ecosystems from Hightown up through Formby, and an unusually early engagement with Latin taxonomy.

A pupil of Merchant Taylor's School, Crosby, John went on to read natural sciences (specialism botany) at Clare College Cambridge, graduating in 1958. Whilst in Cambridge he was strongly influenced by the teaching of (Sir) Harry Godwin, who at the time was in the process of developing methods in palynology to study the history of the British Flora, and also was introduced to the complexities of tropical botany by E.J.H. Corner, who encouraged a generation of students to follow careers in the study of tropical rain forests. After graduation John spent a short while teaching at Repton School in Derbyshire, where he developed his classroom skills. It was while he was teaching that he started conducting his own research (c. 1961–1963) on the fossil pollen history of the Inner Hebrides, supported by a Royal Society grant. He used the school laboratory and microscopes to conduct the first palaeoecological investigation of the Isle of Canna (published in *New Phytologist* in 1967). It was this determination to pursue science that earned him a Ph.D. fellowship in the laboratory of Donald Walker at the Australian National University in Canberra. Walker was in the process of evaluating the Quaternary vegetational history of Australasia, and with Walker's encouragement, John chose to investigate the fossil pollen history of the New Guinea highlands for his doctorate. John's thesis placed equal emphasis on the past and the present, by on the one hand evaluating the fossil pollen record within lake sediments, and on the other the ecology and pollen productivity of the present vegetation of his study area, providing a model which was subsequently followed by students of vegetational history across the tropics.

John joined the staff of the Geography Department in the University of Hull as a lecturer in 1967. When initially applying to

NERC for a research grant he was advised to work in Africa "as palynology had already been shown to provide useful results there," but John was interested in solving global issues rather than local ones and put in a proposal to study the Quaternary vegetational history of the world's most diverse tropical forests in Malaysia and Indonesia. His students went on to study lake histories throughout Southeast Asia, establishing baseline palaeoecological data for Java, Sumatra, Malay Peninsula, and the islands of the Pacific, particularly Easter Island. It was during one of his expeditions to Sumatra, while camping in a tea plantation, that he framed the initial draft of his first book "*The tropical rain forest - a geological history*," which became essential reading for all students of the history of tropical vegetation. Though John is probably best known for his work on the human colonization and over-exploitation of Easter Island, for which he was awarded a D.Sc. by Cambridge University in 2004, he played seminal roles in the development of modern pollen sampling and of automated pollen identification. Indeed, John is justifiably viewed as the father of automated pollen identification, a need and problem he first identified in 1968. He and his students continued to work on the problem into his retirement, at which point his work had led to the launch of commercial systems. He also wrote a seminal paper on the topic with his statistician daughter Eleanor Stillman in 1996. Together with Martin Brasier, Michael House and John Neal, John was instrumental in setting up the successful (if sadly short-lived) Hull M.Sc. in Micropalaeontology. John's interests went well beyond pollen analysis. Indeed, John would describe himself as a biogeographer rather than a palynologist.

From 1980 to 1987 John was the Editor-in-Chief of the *Journal of Biogeography* and he played a crucial role in its establishment and development. The journal was launched in 1974 by John's Hull University colleague David Watts, but by 1978 John had joined as co-editor, assuming sole editorship from 1980, leading the journal until 1987, developing its scope, size and standing.

One of John's proudest achievements was to be written up in the satirical magazine *Punch*. John organized an undergraduate expedition to Krakatau in anticipation of the centenary of the explosion that wiped life from the island in 1883. The Krakatau Centenary Expedition of 1979, was chided by *Punch* for being mathematically challenged, jumping the gun by a full four years. But as John explained it, he wanted the publications to flow from that work in time for the true centenary, and he beat his own deadline by a year with the first of a series of papers published in 1982.

Indeed the Krakatau expedition is a great example of how John inspired his students. He would set an idea in motion, nurture the effort, but ultimately step back and let the students take the academic credit and build their careers.



**FIGURE 1** John Flenley (c. 1973) pointing out a Holocene deposit at Skipsea, East Yorkshire, close to the locality where his undergraduate palaeoecology class had found pollen of water chestnut. This finding, of a plant previously unknown from the British flora, was published in *Nature* 1975, 257, 39–41

John accepted a position as professor of Geography at Massey University in New Zealand in 1989. At Massey he built a further very active palynology laboratory and began to concentrate more on the issues of Pacific and New Zealand biogeography. For this work he was made a fellow of the Royal Society of New Zealand in 2002 and given a Distinguished Service award by the New Zealand Geographical Society in 2016. He gave up his Massey professorship in 2001 but continued to work there in an emeritus capacity throughout his retirement, and in particular it was during this time that he developed the system “Classifynder” to achieve his long-term aim to enable the automated identification of fossil pollen.

John was unafraid to develop theories involving a number of strands and steps, and in debating theory with him as a student, you learnt how to construct arguments and how to probe and test their internal consistency in explaining phenomena. John was not a “me too” type of scientist and there was an originality to his thinking such that he was happy to tackle novel problems. His lengthy and pioneering commitment to developing automated pollen analysis was an illustration of this. Another example is his theory of why pollen is yellow, published in *Journal of Biogeography* in 2011. The article is set out through a series of anecdotes and observations, connected by evidence drawn from the peer review literature. He takes us through the years of reflection on the matter, as he periodically returned to the problem and his ideas developed. It culminates in the “Tertiary montane volcanic UV-B hypothesis,” an argument in 14 steps by

which he linked together two problems, captured in the full title of the article “*Why is pollen yellow? And why are there so many species in the tropical rain forest.*”


In later life, John's religious faith deepened and he was made Deacon for the Care of Creation at All Saints Church in Palmerston North, using this position to encourage others to consider the ethical issues of environment conservation. His interest in science remained undimmed. Convinced of the reality of global climate change, John came to the view that a vital part of the solution was for us all to take responsibility for the planting of more trees, to sequester more carbon. He fell to pondering how many trees would we each need to plant to mitigate global warming? He interested a colleague, Dr Peter Read, in the problem. Peter Read finally announced to John that he had the answer (40) but before it could be published, Peter died of a heart attack while en route to a climate conference in Copenhagen. The calculations could not be found. John set to the task of recalculation. The results are to be found within his final book *Trees, trees, trees: you can do something about climate change* (published 2015).

It was our privilege to have John as a mentor and a friend, he will be missed, but he leaves a dynamic legacy.

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