

# **Dr. Joyce Lambert**

***Martin George 2006***

Dr. Joyce Lambert, the first to demonstrate that virtually all the c. 50 lakes in Broadland are man-made, died on May 4th 2005. Born in 1916 at Herne Hill, the only child of an estate-agent father, Joyce was educated at the Norwich High School for Girls. Afterwards, she studied botany at the University College of Wales, Aberystwyth, graduating in 1939. Three years later, after a spell as a school teacher in Norwich, she was appointed a lecturer in botany at London University's Westfield College, now incorporated in Queen Mary College.

Prompted by suggestions made towards the end of the Second World War by Ted Ellis, and by the botanist A.R. Clapham, then of Oxford University, she commenced an ecological study of the fens bordering the R. Yare in the Surlingham – Rockland area. She published her findings in a series of papers from 1946 onwards, and in 1948 moved to Cambridge University where she received encouragement from such luminaries as Harry Godwin and Alfred Steers. While at Cambridge she turned her attention to the fens located in the valley of the Bure, working in partnership with J.N. Jennings, a stratigrapher then based at Leicester University. In 1951 the two of them published in the *Journal of Ecology* three classic papers relating the alluvial stratigraphy of the Bure valley to the types of vegetational succession which occur there. Jennings meantime had been working on the stratigraphy of other parts of the region, and when writing up his results in the form of a memoir for the Royal Geographical Society (published in 1952 under the title 'The Origin of the Broads') had concluded that most if not all the broads in the region had been formed by natural processes. Meantime Joyce had, with the enthusiastic assistance of boys from the City of Norwich School, been carrying out further investigations into the ecology and stratigraphy of the Yare valley broads and fens. Using a smaller peat borer than the one which had been employed by Jennings, she put down a series of closely-spaced cores around various broads in 1952. These revealed to her amazement that what had previously been thought to be natural lakes had near-perpendicular walls; moreover their floors, some 3 metres or so below the present fen surface, were almost flat. Clearly, these water bodies had originated as peat diggings whose angular shape had been concealed by the overgrowth of fen vegetation once they had become permanently water-filled.

Joyce had not made this discovery when she gave her Presidential address to the Norfolk & Norwich Naturalists' Society in April 1952, but she was able to incorporate her new findings when this was published in that society's transactions the following year. This announcement, together with a brief paper in the March 1953 edition of the *Geographical Journal*, caused a sensation. Indeed, her totally unexpected discovery was sceptically received by those understandably puzzled as to how such extensive excavations could have been dug by hand within areas of the flood plain now subject to regular inundation. To answer these and many other questions, a multi-disciplinary team was established; this comprised, in to the Ministry of Works, and J.N. Hutchinson, a civil engineer. The joint results of their investigations were published in 1960 in Memoir no. 3 of the Royal Geographical Society – 'The Making of the Broads'. Briefly, the team found documentary evidence which proved that substantial amounts of peat for fuel had been dug between the 12th. and 14th. centuries in a region which was then one of the most economically successful and populous parts of the country. Although they thought that peat digging had probably been in progress for several centuries before then, they were unable to find direct evidence for this. The team did, however, demonstrate that many of the parishes in the region had 'rights of turbary' to dig peat within their areas, and that in many cases the boundaries of two, three or more neighbouring parishes are aligned in such a way as to indicate that each of them had rights to extract peat from what later became a single broad. They also concluded that those involved in the industry had considered it worthwhile to excavate to a depth of 2 to 3 metres to gain access to brushwood peat, the calorific value of which is superior to that of the material obtainable from near the surface, but that virtually all the excavations in the region had been abandoned by the end of the 14th. century as a result of their increasing susceptibility to flooding. They attributed this partly to a deterioration in the climate of East Anglia, and partly to a progressive rise in the level of the sea (and therefore the rivers), relative to that of the land. Last but not least, the team found evidence indicating that the abandoned diggings developed into economically important fisheries, and that in the interests of navigation, many of them had been linked to the main river system by new, hand-excavated channels.

Joyce was appointed a lecturer in botany at Southampton University in 1950, but continued to

work closely with the other authors of the RGS memoir. Despite this, she carried out a number of ecological studies on the saltmarshes bordering Southampton Water and other sites, being particularly interested in the spread of the invasive grass, *Spartina*. Later, she studied the plant communities of the New Forest, developing in conjunction with Professor Bill Williams a computer-based methodology for their classification.

Joyce's colleagues at Southampton greatly admired her razor-sharp intellect as well as the competence with which she carried out her administrative duties, and she was largely instrumental in setting up a new combined honours degree course in botany and geography; this later evolved into an Environmental Sciences course. In addition to her intellectual abilities, which in due course led to her being made a reader in her department, she was regarded by all who knew her as a very caring person. As a consequence of these attributes, she was greatly respected and liked by her students. She retired in 1979 and returned to Norfolk to live in the house at Brundall built by her grandfather in the early 1920s. She never married.

Sadly, Joyce became so physically incapacitated that she was obliged to spend the last three years of her life in the BUPA nursing home at Colney. Nevertheless, she retained her close interest in Broadland, a region now universally regarded as the best example of a lowland wetland system in Britain. One of its particular features of interest is the relationship between its ecology and its land use history, and Joyce's contribution towards an improved understanding of this will always be remembered. She will be missed by her many friends and colleagues.