

Obituary

JOHN WILLIAM HESLOP-HARRISON

(1881-1967)

John William Heslop-Harrison died on 23rd January 1967 at his home in Birtley, Co. Durham, at the age of 86 and by his death the Society lost one of its most famous members. He was a field naturalist *par excellence* and a pioneer in biological research.

Harrison was born in Birtley in 1881 and before he was 11 he was showing signs of a keen interest in natural history. This tendency was carefully encouraged by his family—his mother was a sister of the Rev. J. E. Hull, M.A., D.Sc., who had a considerable international reputation for his work on spiders. By the time he won a County Council Scholarship, which enabled him to enter Rutherford College, Newcastle, in 1893, he was spending more and more time in the gardens and greenhouses at the Birtley House Estate, intrigued by the procedures he saw and eagerly learning all he could about living things. Other events guided him towards a life dedicated to biology and it was while he was at College that he met Charles Robson and J. R. Johnson, distinguished local naturalists, who stimulated his emerging interests in field studies. His enthusiasm and flair for biological investigation developed rapidly and by the time he graduated in 1903 the pattern of his life had been determined and the foundations of his future career laid.

Harrison entered the Durham College of Science (the Newcastle Division of Durham University) in 1900 and three years later he graduated with a 'double first'—Education and Chemistry, with Medal. For the greater part of his life he served his College and University in Newcastle; he was D.S.I.R. Fellow (1917-1923), Lecturer (1920), Reader (1926) and Professor (1927-46). He was awarded the degrees of M.Sc. (1916) and D.Sc. (1917); he was elected Fellow of the Royal Society of Edinburgh (1921) and Fellow of the Royal Society (1928). On his retirement he continued to serve his University as Senior Research Fellow (1946-9) and as Secretary of the Durham University Schools Examination Board (1940-50); he was appointed Emeritus Professor, first of the University of Durham and later of the University of Newcastle upon Tyne.

In 1905 he joined the staff of Middlesbrough High School for Boys where he taught with characteristic energy and success for twelve years. Equally characteristically, and despite a heavy teaching load, he began research work into the geographical distribution and genetics of moths of the *Bistoninae*. Also during this period he made an ecological study of the Lower Tees marshes. This pioneer work, as well as being a good example of Harrison's best writing, has become a historical document, for Lower Teesside is now completely changed into an urban and industrial site. Back in Newcastle from 1917 onwards he made outstanding contributions to biological science in two fields. In entomology he carried out notable investigations into the induction, incidence and inheritance of industrial melanism in *Lepidoptera*. His results contributed to both Darwinian and Lamarckian views and he was a pioneer in the teaching of experimental evolution in British universities. Harrison's chief botanical work during this period dealt with the following important topics: the hybridity and cytogenetics of roses; variation and sex determination in willows as modified by parasitic mites; and the first demonstration of sex chromosomes in plants. Besides *Rosa* and *Salix* he was interested in other critical plant genera and he initiated cytotaxonomic research on several including *Orchis*, *Rubus* and *Viola*. In this way he and his school pioneered one area of experimental taxonomy in Britain and gained considerable reputation in so doing.

In 1935, as a result of joining an expedition from University College, Dundee, led by his friend Professor A. D. Peacock the previous year, he initiated a detailed ecological and biogeographical study of the islands of the Inner and Outer Hebrides. These studies carried out with parties of students and colleagues continued for some twenty years and ran parallel with similar work in the northern counties of England. Much of Harrison's work is contained in over two hundred scientific papers and these are listed and appraised in *Biographical Memoirs of Fellows of the Royal Society*, vol. 14, November 1968. In addition he made many thousands of biological records, principally in *The Vasculum* but also in most suitable journals.

During his long life he was renowned as a gifted field naturalist; his memory of facts was prodigious and his knowledge of flowering plants and insects was of a most unusual depth. To be with him on one of the outings of the Northern Naturalists' Union, which he helped to found in 1924 and of which he held office in one capacity or another from then onwards, was a thrilling experience. Leading the party he just took for granted. Wherever he went the place seemed to produce rare or interesting plants because he missed nothing and always did his homework; both novice and professional marvelled at his versatility and recognised the touch of genius. He was a fine teacher who possessed superb self confidence and the ability of passing on to others his love of natural history.

He married Christian Watson Henderson, who predeceased him, as did his elder son, George, who was a first-rate entomologist. His daughter, Mrs H. H. Clark is Lecturer in Plant Science at Newcastle University, and his younger son, Professor John Heslop-Harrison F.R.S., now occupies a Chair of Botany at Wisconsin University, U.S.A.

J. A. RICHARDSON