

## MEMORIAL OF EVEREND LESTER BRUCE

J. E. HAWLEY, *Queen's University, Kingston, Ontario.*

Dr. E. L. Bruce, Miller Memorial Research professor and head of the Department of Geology, Queen's University, Kingston, Ontario, died on October 5, 1949, following a heart attack suffered ten days previously while he was preparing for another University session. An earlier attack in March had enforced a long rest through the spring and early summer, after which he seemed to have made such a good recovery that he returned to his desk and became increasingly involved in his many duties.

Born in 1884 at Toledo, in the vicinity of Smith Falls, Ontario, Dr. Bruce received his undergraduate training at Queen's University ob-



EVEREND LESTER BRUCE  
1884-1949

taining the degrees of B.Sc. and B.A. in 1909 and 1911. His master's and doctorate work was carried out at Columbia University under Kemp and Berkey in 1912-1915, and a further year of post-graduate study was spent with Van Hise and Leith at Wisconsin.

His early geological investigations (1912-1918) with the Ontario Department of Mines and Geological Survey of Canada led him to northern Ontario, Manitoba, and Saskatchewan where he developed a great love

of the northland and an unflinching interest in the many problems of the pre-Cambrian. In 1919, Bruce came to Queen's University and succeeded N. L. Bowen as head of the department of Mineralogy where he systematized in typical fashion, and added substantially to the many mineral collections previously acquired by Professor William Nicol. Expanding his courses to the graduate level, he brought to his teaching of mineralogy and later, geology, a wealth of practical field experience which few instructors could equal.

Following the establishment of the Willet G. Miller Memorial Research Professorship in the Department of Geology, Bruce accepted this post in 1929 and began the development of graduate courses in pre-Cambrian, metamorphic, structural and economic geology, culminating in the publication of his book on Mineral Deposits of the Canadian Shield.

In 1944 he assumed the Chairmanship of the Committee on Graduate Studies for the entire university and in the same year succeeded M. B. Baker as head of the Department of Geology. There is no doubt that this heavy load of administrative duties contributed much to his untimely death.

Throughout his career many honours came to him. He was a fellow of the Geological Society of America, the Mineralogical Society of America, the Royal Society of Canada, and a member of the Geological Society of Edinburgh, the Geological Society of Finland, the American Institute of Mining and Metallurgical Engineers and the Canadian Institute of Mining and Metallurgy. His work was fittingly recognized on several occasions, when he was chosen as President of Section IV (Geological Sciences) of the Royal Society of Canada in 1933 and of the Geological Society of America in 1943. In 1948, he was elected Vice-President of the Society of Economic Geologists. Still other honours were to be his, had he lived.

Bruce's chief interest lay in the economic mineralogy and geology of metalliferous deposits throughout the pre-Cambrian as shown by his long record of active field work and resulting government reports and scientific papers on various mining areas. Field seasons not indicated in his bibliography were devoted to consulting geological work for various companies, in study of the pre-Cambrian of Finland in 1930 with Sederholm, or in attendance at International Geological Congresses held in Spain, Moscow, and England.

Outstanding among his explorations in virgin territories are those in which he laid an excellent foundation for the geology of the copper and gold areas of northern Manitoba and Saskatchewan, and the Red Lake gold area of Ontario. He also pioneered in the Little Long Lac area, Ontario, and contributed much in later years to the geology of the

Michipicoten district. Shorter periods were spent in the gold-copper belt of northwestern Quebec, the Rossland district in British Columbia, and more recent visits to the Northwest Territories and the Labrador iron deposits kept him in touch with still other phases of the mineral industry. It is little to be wondered at that in later years he came to be regarded as the dean of Canadian pre-Cambrian geologists.

Bruce's contributions to the science of Mineralogy consist chiefly of his keen and accurate observations of the occurrence of economic minerals and associated metamorphic alterations in the numerous deposits he examined. His was primarily "geological mineralogy" of the highest order, but he was always quick to recognize the unusual, as witness his several papers on odd or rare varieties of minerals encountered from time to time.

Of even more significance, however, are his contributions to the geological sciences as a teacher, both of numerous field assistants on surveys and of students in class room or laboratory. Here too he excelled as an administrator and director of research, and was tireless in his efforts to secure the best and most up-to-date equipment with which his students could work. Always a patient, modest, and kindly instructor, he had the faculty of drawing out the best, of leading without appearing to lead, and of imparting that personal interest which made all his students and colleagues his lasting friends.

His marriage to Mrs. H. C. Horwood of Ottawa in 1923 marked the beginning of the happiest part of his life, which continued unbroken till her death in 1943, after a lengthy illness. Her gay wit and charm and the kindly hospitality of both made their home a mecca for all geologically-minded as well as countless other friends. Their two sons, Douglas and Geoffrey survive.

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