

The recollection of days spent with Kidston in his home at Stirling is a precious possession. He was a true friend, generous and unchanging, a student; and intensely human: unequalled in his knowledge of plants which grew in an era inconceivably remote, he cared equally for the plants which he cultivated with conspicuous success in his own garden. The loss of him is hard to bear because he was one who inspired affection as well as respect; the memory of what he did for others and the sacrifices he made for the advancement of knowledge will long remain, but the written record of his work will endure still longer.

A. C. SEWARD.

Charles William Andrews.

BORN 1866.

DIED 25TH MAY, 1924.

Geologists and palaeontologists regret the premature death of Dr. C. W. Andrews, who has added so much to our knowledge of fossil vertebrates during the past thirty years. It was known to his friends that he had long been afflicted with a lingering illness, which he had borne with great fortitude; but he eagerly pursued his researches without intermission, and his end came peacefully in the midst of work.

Dr. Andrews was born at Hampstead in 1866, and graduated in both science and arts in the University of London. He began his career as a schoolmaster, but in 1892 he competed for and obtained a vacant assistantship in the Department of Geology in the British Museum (Natural History). He now had ample opportunities for following his bent in natural science, and he achieved so much success in original research that he attained the London degree of D.Sc. in 1900.

When Dr. Andrews joined the staff of the British Museum, he was first entrusted with the curating of the fossil birds. Here he soon found new material, and like most British geologists of the last sixty years he began his career as a contributor to our science in the GEOLOGICAL MAGAZINE. His first paper, published in 1894, described the remains of the largest known ratite bird from Madagascar, which he named *Aepyornis titan*. Although as an assistant curator he soon had to deal with all the higher vertebrates, he retained a special interest in birds to the end, and he wrote several valuable papers on the extinct birds of New Zealand, the Chatham Islands, and Patagonia, besides a notable account of a primitive tropic-bird (*Prophaethon shrubsolei*) from the London Clay of Sheppey.

Encouraged by the discoveries of Mr. Alfred N. Leeds in the Oxford Clay of Peterborough, Dr. Andrews also began early to take a special interest in the marine reptiles of the Jurassic period. In 1895 he described the growth-stages in the shoulder-girdle of a Plesiosaur, and in later years he made many contributions to our knowledge of the skull and other parts of the skeleton of the Sauropterygia, Ichthyopterygia, and Crocodylia. His results were summarized in the exhaustive *Descriptive Catalogue of the Marine Reptiles of the Oxford Clay*,

published by the British Museum in two volumes in 1910 and 1913. Afterwards he published supplementary papers on the same groups of reptiles, and his last paper, on the skin of *Ichthyosaurus* was read to the Zoological Society early this year.

Dr. Andrews, however, will be best remembered by his numerous important discoveries of mammals in the lower Tertiary freshwater deposits in Egypt. When the symptoms of his illness began to be serious in 1900, the generosity of a Trustee of the British Museum enabled him to recuperate in Egypt during the winter. There he joined Mr. H. J. L. Beadnell, of the Geological Survey of Egypt, in the Fayum, and his keen eyes soon detected remains of mammals which had not previously been noticed. Among these he recognized two successive ancestral elephants earlier and more primitive than any at that time known. He also found primitive hyracoids, sirenians, cetaceans, and other new mammals. In 1902 Mr. Beadnell made an important addition by his discovery of the strange gigantic *Arsinoitherium* in the same region. Between 1902 and 1906 Dr. Andrews paid other visits to the Fayum, thanks to the generosity of the late Mr. W. E. de Winton, and in the latter year he gave a full account of his own collection and that of Mr. Beadnell in *A Descriptive Catalogue of the Tertiary Vertebrata of the Fayum, Egypt*, which was published by the Trustees of the British Museum. This was preceded by several preliminary notes in the GEOLOGICAL MAGAZINE, and provided fundamental contributions to our knowledge of the ancestry of the elephants, hyracoids, sirenians, and cetaceans. It will always remain one of the classics of vertebrate palaeontology.

Dr. Andrews also made one memorable contribution to physical geology. In 1897–8, at the invitation and expense of the late Sir John Murray, he spent ten months in making a geological and natural history survey of Christmas Island in the Indian Ocean, previous to its commercial exploitation for phosphate deposits. It proved to be a typical oceanic island composed of volcanic rocks and coral reefs. The collections were given by Sir John Murray to the British Museum, and Dr. Andrews and his colleagues described the results of the exploration in a small volume published by the Trustees in 1900.

Dr. Andrews became a Fellow of the Geological Society in 1894, served on the Council and as a Vice-President, and was awarded its Lyell Medal in 1916. He was elected a Fellow of the Royal Society in 1906. His kindly disposition, with a vein of quiet humour, gained him a host of friends both in this country and abroad. His ever helpful and encouraging reception of visitors to the Museum attracted many valuable gifts to the collection. His genial comradeship with younger men did much to advance our science. His memory is revered by all who knew him.

A. S. W.