

population has now become a thing of the past, and the accounts of recent travellers make it clear that unless adequate protection can be given, the disappearance of this unique fauna is only a matter of time. It is therefore a subject for congratulation that the Ecuadorean Government has taken an enlightened view of its responsibilities. It has declared the greater part of the archipelago a Nature reserve, in which no hunting or collecting is allowed except by special permission for scientific purposes. Further, a list has been drawn up of the species more immediately

threatened, and the killing or capture of these is prohibited, except that the inhabitants may kill some of them for food.

Many scientific bodies on both sides of the Atlantic have expressed their approval of the steps taken, and have offered to co-operate in rendering them effective. A committee of the British Association, under the chairmanship of Sir Edward Poulton, is at present considering what can be done to organise this international co-operation with the Ecuadorean Government.

W. T. CALMAN.

Obituary

Prof. A. A. Bowman

BY the death on June 12 of Prof. A. A. Bowman at his home in Glasgow, British philosophy has lost one of its most effective and attractive personalities.

Prof. Bowman was fifty-three years of age. Except for the period of the War, he had spent his life in the study and teaching of philosophy, first in Glasgow, then in the United States, finally again in Glasgow. He took his degree in classics and philosophy: and after a post-graduate year in Germany, he served his apprenticeship to teaching in Glasgow. In 1910 he was elected professor of logic at Princeton, New Jersey, becoming later administrative chairman of the Department of Philosophy. In 1926, at more than a little material sacrifice, he accepted a call to return to his old University. For one year he held the chair of logic: and from 1927 until his death the chair of moral philosophy. At no time in the long history of that illustrious chair has its holder exercised a stronger personal influence upon his students, upon the University as a whole, and upon Glasgow and the west of Scotland, than Bowman exercised during his short tenure.

Bowman was profoundly a man of peace, and ardent in service of its better organization. The War, however, especially the last months of it, was one of the decisive experiences of his life. He was in the United States. But from the beginning of the War he was restless. In 1915 Princeton gave him leave of absence. The British authorities in the United States, thinking him (quite rightly) medically unfit for active service, refused to recruit him. He came home at his own expense, found some complaisant medical officer to pass him for home service, then, being in the army, badgered his superiors until finally they let him go to France. After a few months campaigning, he was captured in the Lys break-through of April 1918 and sent to a prison camp. That, which seemed to be the end of his service, proved in fact to be his opportunity. Conditions in the camp were deplorable. Bowman's fluency in German made him the natural centre and unofficial leader of the camp. With tremendous

resolution, he threw himself into the task first of improving those conditions through negotiation with the German authorities, and then of raising and maintaining the morale of his fellow prisoners. His main instrument for that purpose was a system of tutorial classes which had to be carried through without books or material or facilities of any kind; indeed, with almost no other resource than his own erudition and the persuasiveness of his teaching. He gave lectures and instruction in literature, in philosophy, in contemporary history (especially German and Russian), and in the history of art; and on groups of men quite unfamiliar with these themes, he made a profound impression. He taught them really to save their souls; and he was inspired in the task. That experience sharpened and developed his powers of leadership and of public speech. He had always been a good teacher; the prison camp made him one of the most brilliant and powerful expositors of his time.

Both in the United States and in Scotland Bowman had immense influence. Of slight and even frail physique, he had superb spiritual energy and insight, unshakeable courage, and, as has been noted, quite unusual powers of expression. Scholarship was natural to him: and although his flair was for speculation at once bold and thorough, it was always backed by solid learning. All his life he was an ardent student of classical and of modern literature. He had read widely in social theory and history. He was a good critic of painting. Especially in later years, his studies in the philosophy of religion had drawn him into the field of cultural anthropology, in which he had a vast and intimate knowledge of a great variety of primitive civilizations. All this equipment he brought into fullest play in the ordinary business of his crowded class-room. His students, indeed any audience which he addressed, fell instantly under his spell. For his learning, his humour and his eloquence were no more than the instruments of a man of richest personal quality—of deep insight, of rare imaginative power, and of profound moral and social convictions. In philosophy, he held by the Idealist tradition in which he had been nurtured. He gave it

a metaphysical form of his own which his early teachers would have found strange. But he never moved from their conception as to the nature and importance of the issues with which philosophy is concerned. In his hands philosophy was a way not only of thought but also of life. He had worked out his system in the grand style, compact, articulate, thorough and comprehensive, and he presented it with uncommon power.

Bowman's great work was done in the class-room and on the public platform. The tale of his publications is small: a volume of sonnets—the fruits of his prison camp experience—two or three pamphlets and a few articles in learned journals. Happily there is a bigger book almost ready for the press; and it may be hoped that in the large mass of manuscript material which he has left, enough will be found in readily publishable form to give to others than his own students, some idea of the reflections of one of the most original, interesting and courageous minds of our time.

H. J. W. HETHERINGTON.

Prof. Margaret Benson

PROF. MARGARET BENSON, whose death on Saturday, June 20, is mourned by a wide circle of friends, is known best to botanists as one of the leading palaeophytologists of the last generation. Much of her early work on fossils, which began about 1904, has long been incorporated into the text-books; but it is only a year since she published her last paper on the subject. Her best work was done at a time when the technique of fossil cutting was in its infancy, and for years she cut her own sections at a small lapidary bench in a shed in the grounds of the Royal Holloway College, with a cutting machine worked by a gas engine. She left her valuable collection of fossil slides to the College.

Prof. Benson's industry and single-mindedness were quite exceptional, and were combined with a very real flair for knowing what a fossil might yield and how a structure might be interpreted. She was trained in research at Newnham College, Cambridge, and University College, London, and her early work there on the embryology of Amentiferæ, for which the D.Sc. of the University of London was conferred on her in 1894, is now a classic. In October 1893 she was appointed head of the newly founded Department of Botany at the Royal Holloway College. The Department flourished under her, and in 1912 the University conferred on her the title of University professor of botany, which chair she held at the College until her resignation in 1922.

Prof. Benson was a great traveller and collector; and the botanical garden, museum, herbarium and well-stocked laboratories of her College to-day bear witness to her indefatigable enthusiasm and wise foresight. In the Michaelmas term of 1897 she was granted leave of absence in order to visit the professors of botany of Brussels, Heidelberg, Tübingen, Basle, Strasbourg and Paris in their respective laboratories during term. This tour she made with the view of securing the best information for the

equipment of a botanical laboratory. In later years she made two journeys to the antipodes, and on both occasions brought back quantities of valuable specimens. Her botanical work is of enduring value, and she inspired many generations of students with a love of the subject.

E. M. B.

Prof. A. A. Noyes

THE death of Arthur Amos Noyes, director of the Gates Chemical Laboratory at the California Institute of Technology, which occurred at Pasadena on June 3 as the result of an attack of pneumonia at the age of sixty-nine years, has deprived physical chemistry of another of its pioneers of the Ostwald school. Noyes may be regarded, indeed, as the American prototype of Sir James Walker, who died last year. Just as Walker was Ostwald's first British student at Leipzig, Noyes was the first American. Of them, Ostwald remarks in his autobiography: "Both are not only distinguished as investigators and teachers, but belong also as men to the best examples of this diversified race".

For nearly twenty years the research laboratory of physical chemistry of the Massachusetts Institute of Technology, which Noyes directed and to which he personally contributed half the expenses of maintenance, was the centre of this branch of science in the United States, and many of the leading American physical chemists may be counted among his students. His own contributions to the ionic theory of electrolytes and to the principles of qualitative analysis were of primary importance in the modern development of these two fields.

Modesty and thoroughness were the chief characteristics both of Noyes' work and of his character. He sought no honours: he leaves many friends.

JAMES KENDALL.

WE regret to announce the following deaths:

Mr. Arthur D. Carey, known for his explorations in Central Asia, for which he was awarded the Founder's Medal of the Royal Geographical Society in 1889, on June 11, aged ninety-one years.

Prof. Ira E. Cutler, emeritus professor of zoology in the University of Denver, on May 25, aged seventy-three years.

Prof. W. E. Dalby, F.R.S., emeritus professor of engineering in the City and Guilds College, Imperial College of Science and Technology, University of London, on June 26, aged seventy-two years.

Prof. Ivan Hönl, professor of bacteriology in the University of Prague, known for his work in combating the scourge of tuberculosis in Central Europe, on June 7, aged seventy years.

Mr. Frank Merricks, past-president of the Institution of Mining and Metallurgy, and a member of the Geological Survey Board in 1920–26, on June 8, aged seventy years.

Sir Charles Nathan, C.B.E., member of the Executive Council of the Australian Commonwealth Council for Scientific and Industrial Research in 1927–28, on June 5, aged seventy-six years.