

is particularly significant, because it also specifically blocks transmission through sympathetic ganglia²⁴, where chemical transmission seems to play a subordinate role³.

In conclusion, it may be stated that the present hypothesis will have to stand up to many severe tests, particularly pharmacologically. Mathematical development has been beyond my competence and may be premature, though it should be possible; but the absence of quantitative prediction as regards intensity of action is a grave defect. Nevertheless, on the basis of the properties observed for peripheral nerve and muscle membranes, the hypothesis gives a statement of electrical transmission sufficiently precise (particularly as regards time course) for experimental testing, offers a coherent explanation of many previously unrelatable observations, only some of which are mentioned in this preliminary account, and has already proved fruitful in suggesting new experimental investigations.

I wish to thank Dr. K. R. Popper for his stimulating and helpful criticism.

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obvious importance of this find enabled Merriam to interest Miss Alexander, and with her help he was able to take expeditions into the field, which, in several years, not only collected much Upper Triassic material but also found new localities in Nevada where well-preserved Middle Triassic Ichthyosaurs could be collected. The whole material was described in an admirable monograph.

Merriam also recognized that some of his material was not ichthyosaurian but belonged to members of an entirely new order of aquatic reptiles, which he described as the Thalattosauria in another splendid monograph.

Dr. Merriam then turned his attention to fossil mammals, exploring the John Day region of Oregon, giving us an account of the stratigraphy, and descriptions of many new or little-known animals found in it. From this, led by an accidental find, he went on, with the aid of his students, to explore other regions of the western part of the United States, work of great importance because our knowledge of Tertiary mammals depends so largely on materials from the Plains and Great Basin of the Rocky Mountains, the whole country to the west having been barren.

Merriam's well-directed and long-continued explorations not only showed us many successive faunas from the west, but also in some cases gave us mammal faunas from rocks in a marine succession, and thus for the first time enabled us to correlate the terrestrial formation of the interior of the continent with the 'normal marine succession'.

In 1920, Merriam was appointed president and chief administrative officer of the Carnegie Institution of Washington, but he still retained his interests in palaeontology, himself continuing to work on fossils and supporting the work of other men. After his appointment to Washington, Merriam became much interested in the problem of the time at which man first appeared on the American continent, drawing up a detailed discussion of the evidence in a report to the Sixteenth International Geological Congress in 1934. In this he showed that man had been a contemporary with some extinct mammals in America.

But Merriam's interests ranged widely: he wrote much on national parks, on the wide diffusion of culture among the 'common men', on many social problems of the modern world, and on spiritual values. He was in fact a man entirely worthy of the influential position he filled, and he was also a palaeontologist of the first rank.

D. M. S. WATSON.

OBITUARIES

Dr. J. C. Merriam

THE death on October 30 of Dr. J. C. Merriam at the age of seventy-six will be deplored by all palaeontologists and many other scientific men.

After a training under von Zittel in Munich, Merriam went to the University of California to teach palaeontology and historical geology, and in time became professor and head of the Department of Geology.

Not long after his appointment, Dr. Perrin Smith, who was working on ammonites, gave Merriam some fragmentary remains of reptiles from the Upper Triassic Trachyceras beds of Shasta Co., North California. These proved to belong to Ichthyosauria, and Merriam based on them the first satisfactory account of any Triassic member of that group. The

Prof. Velyien Henderson

WE regret to record the death of Prof. Velyien Ewart Henderson, of Toronto, on August 6 at the age of sixty-eight. Prof. Henderson was born and educated in Canada and took his M.B. at Toronto in 1902. After a period as demonstrator in the University of Pennsylvania he studied at Prague and at Marburg under Hans Horst Meyer. He was appointed demonstrator of physiology in Toronto in 1904, lecturer in pharmacology in 1906 and professor of pharmacology in 1909. Except for a period of service in the Canadian Expeditionary Force during 1916-18, he was at Toronto for the remainder of his life.

At Marburg, Henderson worked on diuresis and on the salivary glands. With Otto Loewi he discovered that the vasodilator nerves in the chorda tympani