

"Catalogue of Marsupialia and Monotremata" in the British Museum, 1888. Joint author with Dr. Sclater of "The Book of Antelopes." Author of upwards of 200 memoirs and papers in various journals on Mammals, their structure and distribution, amongst which are:—"On the Dentition of *Ornithorhynchus*" (*Proc. Roy. Soc.*, 1889); "A Milk Dentition in *Orycteropus*" (*ibid.*); "On the Species of *Hyracoidea*" (*Proc. Zool. Soc.*, 1892); "On Cœnoles, a still existing survivor of the *Epanorthidae*" (*ibid.*).

WILLIAM WATSON,

B.Sc., Associate, Royal College of Science, London, and Assistant Professor of Physics. Late University Scholar in Experimental Physics, London University. In conjunction with Mr. Boys and Mr. Bristoe he published a paper on "The Measurement of Electro-Magnetic Radiation" (*Phil. Mag.*, 31-44, 1891). In conjunction with the late Mr. J. W. Rodger he published a paper "On the Magnetic Rotation of the Plane of Polarisation of Light in Liquids" (*Phil. Trans. Roy. Soc.*, 1895). This paper represented the results of four years' work. As Secretary of a Committee of the Brit. Assoc. he has, in conjunction with Prof. Rücker, been conducting a series of comparisons between the Magnetic Instruments in use in the British Observatories, and the results have been published in the Report of the Brit. Assoc. He is still at work on an instrument for comparing Thermometers (see his paper, *Phil. Mag.*, 44-116, 1897). He is now engaged in investigating the connection between the magnetic units employed in Observatories and the Ampere and Ohm.

WILLIAM CECIL DAMPIER WHETHAM,

M.A. Lecturer in Physics. Fellow of Trinity College, Cambridge. Author of the following scientific papers, &c.:—"On the Alleged Slipping at the Boundary of a Liquid in Motion" (*Proc. Roy. Soc.*, xlviii., p. 225, 1890, and *Phil. Trans.*, 1890, A., p. 559); "Note on Kohlrausch's Theory of Ionic Velocity" (*Phil. Mag.*, July 1891); "Ionic Velocities" (*Proc. Roy. Soc.*, lii., p. 283, 1893, translated *Zeits. für Physikal. Chem.* xi., p. 220, 1893, also *Phil. Trans.*, 1893, A., p. 337); "On the Velocity of the Hydrogen Ion through Solutions of Acetates" (*Brit. Assoc. Reports*, 1894, p. 568); "On the Velocities of the Ions and the Relative Ionisation Powers of Solvents" (*Phil. Mag.*, 1894); "The Velocities of the Ions" (*Proc. Roy. Soc.*, lviii., p. 182, 1895, and *Phil. Trans.*, A., 1895, p. 507); "The Ionising Power of Solvents" (*Phil. Mag.*, July, 1897); "Report to the British Association on the Present State of our Knowledge in Electrolysis and Electro-Chemistry"; "The Theory of the Migration of the Ions and of Specific Ionic Velocities" (*Brit. Assoc. Report*, 1897, p. 227); "The Coagulative Power of Electrolytes" (*Phil. Mag.*, November, 1899); "The Ionisation of Dilute Solutions at the Freezing Point" (a paper read before the Royal Society); an elementary text-book on "Solution and Electrolysis" (Camb. Univ. Press, 1895); Letters and Articles in NATURE and Science Progress.

ARTHUR SMITH WOODWARD,

F.G.S., F.L.S., F.Z.S., F.R.G.S., &c. Assistant-Keeper of Geology, British Museum, Natural History, Cromwell Road, S.W. Studied at the Owens College, Manchester, 1880-82; entered British Museum, August 24, 1882; awarded Wollaston Fund by Geological Society, 1889; and the Lyell Medal in 1896. Distinguished for his knowledge of Fossil Fishes. Author of 150 separate papers, mostly on Vertebrate Palæontology: (142 on Fossil Fishes; 14 on Reptilia; 4 on Mammalia; and 14 on General Palæontology). Author of two monographs (1890-95) on the Fossils of the Hawkesbury Series (*Mem. Geol. Survey*, New South Wales (Palæontology), Nos. 4 and 9, Museum, Sydney, New South Wales); and on Fossil Crocodilia from the Cretaceous Rocks of Neuquen, Argentine Republic (*Anales Mus. La Plata*, 1896). Author of a British Museum Catalogue of Fossil Fishes, comprising: Part I. "The Elasmobranchii" (pp. i.-xlvii. and 1-474, plates i.-xvii. and 13 woodcuts, 8vo, 1889); Part II. "The Elasmobranchii" continued (pp. i.-xlv. and 1-567, plates i.-xvii. and 58 woodcuts, 8vo, 1891); Part III. "The Actinopterygian Teleostomi" (pp. i.-xliii. and 1-544, plates i.-xviii. and 45 woodcuts. (Printed by order of the Trustees, 1895.) Part IV. now preparing for press. Also "Outlines of Vertebrate Palæontology" (Camb. Univ. Press, 1898, pp. i.-xxiv. and 1-470, with 228 illustrations in the text.

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REV. JAMES CHALMERS ("TAMATE").

FEW missionaries have been so widely known and so deservedly appreciated as the Rev. James Chalmers, of the London Missionary Society, whose death has recently been reported. Mr. Chalmers was transferred from Raratonga in the Hervey Group to New Guinea twenty-three years ago, and it is in connection with his later field that he has earned a recognition in scientific journals.

Tamate, as Mr. Chalmers loved to be called by his white as well as by his black friends, was a man of tremendous energy and enthusiasm, and he possessed a rare sympathy with the natives that was due to a deep knowledge of their nature and a personal love for them. His name was a password along very nearly the whole of the southern coast of British New Guinea, and in many places for some distance into the interior. Those natives who had only heard of him longed to see him, those who knew him loved him. Till Sir William Macgregor's arrival he had travelled more in British New Guinea than any other man, and, without appliances, he had increased our geographical knowledge of the possession.

It was always a regret to his scientific friends that Tamate did not publish more about the natives concerning whom he knew so much; but he confessed that he greatly disliked the effort of writing down his experiences, though when he did so he could write in a very vivid manner. His first book, "Work and Adventure in New Guinea" (1885), was written in collaboration with the Rev. Dr. W. Wyatt Gill, to whom anthropologists owe so much. In 1887 Chalmers published his very interesting "Pioneering in New Guinea." In the same year he published a paper "On the Manners and Customs of some of the Tribes of New Guinea" in the *Proc. Phil. Soc. Glasgow*, xviii. p. 56. A valuable "Report on the Toaripi and Korari Tribes" was printed in the *Report Austral. Assoc. Advanc. Sci.* ii. 1890, p. 311. In vol. xxvii. (1897) of the *Journal of the Anthropol. Inst.* he published "Vocabularies of the Bugilai and Tagota Dialects, British New Guinea" (p. 139), "Toaripi" (p. 326), "Anthropometrical Observations on some Natives of the Papuan Gulf" (p. 335). Mr. Chalmers has frequently sent ethnographical specimens to various museums. The bulk of one large consignment was acquired by the British Museum. These objects were carefully labelled and were accompanied by a descriptive catalogue, and many of his labels have been copied by Edge-Partington and Heape in their "Ethnographical Album of the Pacific Islands." These collections contained many specimens and the descriptions much information that was not previously known; for example, the collection included the first bull-roarer obtained on the mainland of British New Guinea.

Mr. Chalmers greatly assisted the Cambridge expedition to Torres Straits by lending his mission boat on more than one occasion, and he hospitably entertained several members of the expedition and otherwise rendered valuable aid.

A noble life of self-sacrifice was laid down for the cause of peace, for, according to the telegram, he met a glorious death while endeavouring to stop a tribal fight on the Aird River, a region which had not yet come under missionary influence and over which the Government had no control. A very promising young coadjutor, the Rev. Oliver Fellows Tomkins, who was dearly loved by Chalmers, and twelve students, are reported to have been murdered at the same time.

Since the above was written a telegram has been received confirming the former rumours. Mr. Chalmers, like several other missionaries in New Guinea, has falsely been reported to have been murdered on more than one occasion; but we fear this time the news is only too true.

A. C. HADDON.