The Indigenous Land Mammals of Porto Rico, Living and Extinct, Memoirs of the American Museum of Natural History, N. S., II., Pt. II., October, 1918. By H. E. ANTHONY.

Captain Anthony has been very fortunate in being able to study a very interesting phase of mammalian evolution; the borderline between the extinct and the recent. This fact makes his excellent memoir extremely interesting to students of vertebrate evolution. The work was attempted as a phase of an extensive survey of Porto Rico, covering the recent fauna and flora, the authropology and archeology; Captain Anthony confining his attention to the mammals. Most of the fossil forms are of Pleistocene age, though their nature is such as to lead Dr. Matthew to suggest to the American Philosophical Society¹ that Porto Rico and its adjacent islands have not been in direct communication with the mainland since the early Pliocene. The great body of the monograph, illustrated by 55 text figures and 76 photographic plates, is devoted to the systematic descriptions of the forms, chiefly bats. A few amphibian and reptilian bones were also discovered but these have not been discussed. The reptilian bones seem to be lizards of the general type of Amblyrhynchus, because of the presence of epiphyses. Anthony concludes:

Judging from the character of the ancient mammalia, it (the fauna) must have reached the present islands at approximately some time in the period from the Oligocene to the end of the Miocene. In the Miocene the fauna of South America was of very much the same general character as that of the ancient island fauna and in the light of present-day knowledge of South American paleontology the relationships of most of the island mammals undoubtedly run back to the South American Miocene formations.

The presence of two large ground sloths, Acratocnus odontrigonus and A. major which the author compares with South American Hapalops and Eucholæops is an indication of the relationship of the early South American fauna with that of Porto Rico. The osteology ¹ SCIENCE, N. S., XLIX., 546, 1919. of these two ground sloths, so far as known, is carefully illustrated and described.

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The Boys' Book of Chemistry. A Simple Explanation of Up-to-date Chemistry. Together with Many Easily Made Experiments. By CHARLES RAMSAY CLARKE. New York, E. P. Dutton & Company. 1918.

It is so obviously desirable that the youth of to-day should take a keen interest in chemical science, to which such prominence has been given in the war-time activities that one would welcome the appearance of a satisfactory book for boys' use. Unfortunately "The Boys' Book of Chemistry" is not only a disappointment, but it is one of the most pernicious little volumes that has appeared for a long time. The chemical statements are absolutely wrong in a considerable number of instances and misleading in many more, and the book is subject to severe criticism both as to its English and the arrangement of its subject matter. The degree of judgment shown in the selection of material is perhaps sufficiently indicated by the statement that in the chapter entitled Synthetic Chemistry for Beginners the first four syntheses are those of camphor, indigo, tannin and rubber; and these are given in mere outline form which is practically valueless to the reader, boy or man. At a time when books which will lead to an intelligent interest in chemistry are so desirable, it is unfortunate that this volume should appear to the confusion of its readers.

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NOTES ON METEOROLOGY AND CLIMATOLOGY

METEOROLOGICAL ASPECTS OF TRANSATLAN-TIC FLIGHT

DURING the early preparations for the trans-Atlantic flight most of the discussion centered on the machines themselves, but when it became evident that airplanes and dirigibles could stay in the air long enough to accom-