

of Peru being much more extensive and much closer to the Patagonian sea level fauna from which its fauna is derived presents a marked difference in character.

Interesting lists of species of the several zones have been prepared showing the distribution of both genera and species. From these we see that 57 per cent of the species of the Puna Zone are endemic as compared with 80 per cent of those of the Temperate Zone. The difference, as Dr. Chapman points out, is probably due to the greater differentiation in the life of the latter Zone, which was evidently derived from the Tropical Zone and has probably passed through a Subtropical stage, whereas the life of the Puna Zone is but slightly differentiated from the South Temperate of Patagonia.

The introductory pages contain also full descriptions of the various localities visited with excellent illustrations from photographs.

The list includes all species reported from the Urubamba Valley, 380 in number, with annotations on those represented in the collections studied by the author. Thirteen new species and subspecies obtained by the expeditions have already been described by Dr. Chapman and in the present paper he proposes three others *Aratinga mitrata alticola* (p. 62), *Siptornis modesta proxima* (p. 83), and *Ochthoeca lessoni tectricialis* (p. 88).

The paper forms another valuable contribution to Neotropical ornithology the problems of which are being rapidly elucidated by Dr. Chapman's researches. In closing our review we cannot refrain from quoting a paragraph which reflects so admirably upon the present day craze for new genera and the desire of many writers, who know nothing about the questions involved to be "up to the minute" in their nomenclature! Dr. Chapman says: "Generic subdivision in ornithology nowadays is so unstandardized and in many cases is so largely a matter of opinion, that it seems unwise to change long-established terms until opportunity has been afforded to weight the evidence on which the new or revived genera in question are recognized."—W. S.

Wollaston's 'Life of Alfred Newton.'¹—To the average ornithologist the name of Newton is at once associated with the 'Dictionary of Birds' and those who make use of this work as they should, cannot but be impressed not only by the profound knowledge of birds and their literature, which the author possessed, but by his mastery of the English language, which enabled him to embody such a wealth of information in such a relatively small space. Newton is also known through his 'Ootheca Wolleyana', another masterly piece of English composition and reservoir

¹ A Life of Alfred Newton, Professor of Comparative Anatomy, Cambridge University, 1866-1907. By A. F. R. Wollaston, with a Preface by Sir Archibald Geikie, O. M., with illustrations. London, John Murray, Albemarle Street, W. 1921, pp. i-xiv. +1-132. Price 18 shillings.

of information on the breeding of Palaearctic birds, published as a memorial to his friend and colleague, John Wooley, and also as a contribution to the study of birds' eggs, a branch of ornithology to which a large part of Newton's life had been devoted.

To British ornithologists Newton's name will ever be associated with the B. O. U. of which he was one of the founders—if not *the* founder since the original meeting was held in his rooms at Cambridge.

It is fitting that a man of Newton's eminence in his chosen field should be properly memorialized and the recent volume by one of his former students, Mr. A. F. R. Wollaston, places on record, in a satisfactory manner, the main events of his life and gives a clear idea of his character and personality. In style the biography is perhaps not all that we might desire, since the subject matter seems to be rather carelessly thrown together and lacks continuity, so that the charm that many biographies possess in their well sustained narrative is to some extent lost. This is due in large measure to the long delay and interruptions in preparing the volume, to which the author was compelled to submit through force of circumstances, and to the final necessity of cutting down his manuscript to about one half of its original length.

Alfred Newton, we learn, was born on June 11, 1829, the son of a Norfolk squire, and was educated at Cambridge University, where in after years he became Professor of Zoology and Comparative Anatomy. He obtained a travelling scholarship at the University which enabled him to gratify his great ambition to travel in Lapland and Iceland to investigate the breeding habits of the birds of these northern countries, while later he visited the West Indies and the United States, in pursuit of bird lore and birds' eggs. In early life he suffered an accident which left him lame and this led later to another mishap which aggravated his affliction, but in spite of all he continued his active life bearing with remarkable fortitude the great handicap that had been placed upon him. He had the qualifications of a great explorer and had it not been for his affliction would undoubtedly have made a name for himself in this field.

Between Newton and his brother Edward there existed the deepest affection which stands forth as one of the beautiful features of his life. Their interests were largely identical and when separated they wrote to one another every day, or by ever mail when one of them happened to be out of the country.

Newton's conservatism is evident in everything connected with his life—his views upon most subjects, his personal habits, attire, etc., but curiously enough we find him among the first to adopt the ideas of Darwin and Wallace on evolution and one of their staunch supporters in the stormy discussions which rent the British Association in the early sixties.

Newton was dearly loved by those who came into personal contact with him at Cambridge and his kindness to young ornithologists extended

far beyond the confines of the University town, or even the boundaries of Great Britain, as the present writer can testify.

Sir Archibald Geike in a preface to Mr. Wollaston's biography sums up Newton's character as follows: "His perennial bonhommie, his youthful enthusiasms maintained up to the last, his inexhaustible fund of anecdote and reminiscence, his unflinching good humor, his love of work, and his generous co-operation in the doings of every fellow-worker who needed his help, together with the amusing predicaments in which his conversation sometimes placed him combined to make a rare and delightful personality;" and the author closing his personal estimate of the man says: "When once you were a friend of Newton's you were always his friend. He was possessed of the old-fashioned courtesy of manner, and a certain leisureliness of habit, which made a visitor feel that he was not trespassing upon the time of his host. Both in appearance and in character he had the finest attributes of the old race of English country gentleman, to which by birth he belonged."

Newton's name and influence are indelibly impressed upon the history of ornithology and present day students of his favorite science will do well to read carefully the volume which Mr. Wollaston has brought together as they are bound to gain inspiration from the history of the life that is there set forth.—W. S.

Stresemann, on the Woodpeckers of Sumatra.¹—The various Sumatran species are considered in relation to the forms inhabiting Malacca, Java, and Borneo, etc., and the applicability of Steere's law is discussed. Under each species are paragraphs dealing with distribution biology and differentiation into races; then under the Sumatran race of the species are discussed, its characters; sexual differences; plumage of the young; distribution; biology; and observations.

The following new forms are described *Picus vittatus limitans*, (p. 74), East Xangean; *Collocalophus miniatus dayok* (p. 82), West Borneo; and *Dinopium javanense palmarum* (p. 93) Sumatra.

At the close of the paper there is a summary of the author's detailed study, under the following headings: zoogeographic consideration, geographic variation in color, ontogeny of coloration and sexual dimorphism, molt and number of eggs. The paper is admirably planned and data of much interest and importance are presented.—W. S.

Rothschild, on Birds of Yunnan.²—A collection made by George Forrest for Col. Stephenson Clarke, contains representations of 278 of

¹ Die Spechte der Insel Sumatra. Eine monographische Studie. von Dr. E. Stresemann. Archiv. f. Naturg., 87, abt. A., Heft 7. June, 1921, pp. 64-120.

² On a collection of Birds from West-central and North-western Yunnan. By Lord Rothschild, Novit. Zool., XXVIII, May, 1921, pp. 14-67.