R. BOWDLER SHARPE, W. GARSTANG, F. A. BATHER, H. M. BERNARD. New York, D. Appleton & Company. 1897. 8vo. Pp. 771. Price, \$2.00.

The Concise Knowledge Library's Natural History—a misleading title inasmuch as the book contains no botany—treats of the animal kingdom from the nigher mammalia down to the protozoa. Its authors, as may be seen from the above list, are Europeans, and the forms of life they describe and illustrate are, from the American standpoint, chiefly exotic. At the same time, where an abridged encyclopedia is wanted the book will be found convenient for reference.

The preface states that "the text is illustrated by upwards of five hundred original drawings made and reproduced expressly for the work." Those of the insects and some of the other invertebrates are fair; the remainder may probably be regarded as the worst batch of illustrations published in modern times. This is due partly to faulty drawing and partly to bad ink and poor printing. The type is small, and the volume as a whole has a cheap appearance, which ill fits the high reputation of its authors.

The mammals are treated first and come in for the largest share of attention (217 pages); then the birds, reptiles and fishes, and so on down the scale. Mammalogists will be amused to hear that the American black and grizzly bears "are now considered merely as varieties of the European species," and that "the stoat or ermine (Mustela erminea) and the weasel (Mustela vulgaris) are common to Europe, North and Central Asia, and North America." Perhaps the best feature of the book is its index, which occupies nearly fifty pages and is said to contain about ten thousand references.

C. H. M.

Citizen Bird: Scenes from Bird-Life in Plain English for Beginners. By MABEL OSGOOD WRIGHT and ELLIOTT COUES. With 111 illustrations by LOUIS AGASSIZ FUERTES. New York and London, The Macmillan Company. 8vo. Pp. 430. Price, \$1.50.

Among the new books awaiting the reviewer on his recent return from the West is one which, from its authorship, attractive appearance and odd title, could not be put aside. 'Citizen Bird' is its name—a book for girls and boys. It is admirably written and is illustrated by a remarkable series of original drawings.

In order to test the book the reviewer called his children, two little girls, and read them the opening chapters. The younger (aged five years) was hardly able to follow the story, though interested in certain passages, but her elder sister (aged seven) was simply spellbound from first to last; from which it may be inferred that the book will hold the attention of children of seven and upwards.

The subject-matter is very cleverly woven into a story of a family of bird lovers in their country home at 'Orchard Farm.' The owner of the farm, who is a doctor and something of an ornithologist, takes the children out into the woods and fields and tells them about the birds, their habits and their value to man; and afterward, in his 'wonder room,' gives them special talks on particular species, which are grouped by some easily remembered characteristic, as 'a silver-tongued family' (bluebirds, robins and thrushes), 'Peepers and Creepers' (creepers, kinglets, chickadees and nuthatches) and so on. The children at once become enthusiastic observers and ask innumerable questions, which, in the main, are admirably answered. The story is charmingly told, kindling an interest in bird-life which is kept up to the The child is taught a multitude of entertaining facts about nature, and at the same time filled with a healthy sentiment against the wanton destruction of birds and their eggs.

A few of the statements are a little lax from the standpoint of scientific precision, and one or two of the incidents narrated are liable to tax one's credulity, as when one of the boys tells of brushing newly-fallen snow from the back of a live woodcock on its nest; but the book as a whole may be commended as by far the best bird book for boys and girls yet produced in America.

The illustrations deserve more than passing notice. They are uncommonly good half-tone reproductions of wash drawings by young Fuertes, whose phenomenal talent in grasping bird attitudes was first brought to the attention of the public in Miss Florence A. Merriam's

'A' Birding on a Bronco'. The present series of more than a hundred drawings, published for the first time in 'Citizen Bird,' fully sustains the artist's reputation. As would be expected in so large a series, a few are indifferent, but by far the greater number are remarkable for beauty, fidelity and power of expression. The pictures alone are worth the price of the book.

The typography and press work are of a high order of excellence, and the publishers are to be congratulated on the exceptional skill shown by their printer in handling difficult text figures. It is refreshing to find a book in the field of popular natural history which so distinctly raises the standard for its class and at the same time is offered for sale at so low a price.

C. H. M.

The Birds of Colorado. By W. W. COOKE. Fort Collins, Colorado, State Agricultural College, Agricultural Experiment Station. Bulletin No. 37. Technical Series No. 2. March, 1897. Pp. 1-143.

In view of the geographical situation of Colorado and its topographical features, a recent bulletin by Professor W. W. Cooke, of the State Agricultural College at Fort Collins, is of more than usual interest. It is a well annotated list of all the birds known to occur within the limits of the State. Other features—general discussion, historical résumé, classification of species as regards occurrence, and bibliography—contribute to its value. Considering the opportunity which the region offers, it is somewhat surprising that the author did not also attempt a definition and discussion of the life areas of the State.

The results have been derived largely from a summing up of previously published work, but in addition to this, much valuable new matter is included in the author's own notes and those which other observers placed at his disposal. The list is a large one, the number of species and subspecies attributed to the State being 363, of which 230 are breeders. To those previously recorded, 19 species are added. This makes an enviable total, but that it may still be increased is demonstrated by the outline of yet unworked territory. Colorado will always be an interest-

ing ornithological field, and the present paper cannot fail to be of great service as a basis and stimulus for future work there.

W. H. OSGOOD.

SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON, 280TH MEETING, SATURDAY, OCTOBER 23.

Mr. F. A. Lucas described 'A Dangerous Parasite of the Fur-seal,' stating that it was a nematode of the genus *Uncinaria* found in the sandy portions of the seal rookeries of the Pribilof islands, and caused the death of many young seals. Dr. C. W. Stiles discussed the structure, habits and life history of allied forms.

Dr. C. W. Stiles spoke of 'The International Committee on Zoological Nomenclature,' and of what had been accomplished at the meeting of 1897.

Mr. M. B. Waite presented a communicatign on 'A New Peach and Plum Disease,' caused by a species of mite attacking and killing the terminal bud of the very young trees. The resulting loss in the value of the trees was considerable, as many thousand trees would be affected in one nursery. A similar disease prevailed in the Japanese quince.

Mr. F. V. Coville spoke of 'The History and Distribution of *Abies shastensis*,' which he had found in a recent trip through the Cascade mountains of Oregon to extend along the range north of the Oregon-California line as far as latitude 43° 35′. It has long been confounded with *Abies nobilis*, which is, however, a tree of more northern distribution.

F. A. Lucas, Secretary.

UNIVERSITY OF WISCONSIN SCIENCE CLUB.

At the meeting of the Club on October 15, 1897, Mr. H. A. Harding, in a paper on 'Bacterial Plant Diseases,' spoke of the first discovery by Professor Burrill, of Illinois, and of the tardiness with which European investigators recognized this work. He showed the extent to which bacterial diseases occur, especially among our garden vegetables. Then followed a discussion of a disease occurring in the cauliflower and cabbage. The bacteria find entrance at the water-pores of the leaf and also through