

office during 1916. The need of more assistance in the performance of his duties is keenly felt and an appeal for additional trained help is made. It is to be hoped that the Commonwealth which Mr. Forbush has so faithfully served for these many years will see fit to give him the necessary increase in his staff, so that in the future he may carry on in increased measure the work of education which he has done so well in the past.—TRACY I. STORER.

A LIST OF AVIAN SPECIES FOR WHICH THE TYPE LOCALITY IS SOUTH CAROLINA. By ARTHUR TREZEVANT WAYNE. (=Contributions from the Charleston Museum, III, Charleston, South Carolina, 1917 (our copy received April 25), pp. i-vi, 1-8.

No less than seventy-six names are here catalogued of species of birds first discovered in South Carolina, affording good basis for the author's claim of his state's pre-eminence in this regard. Fifty-seven names are founded upon descriptions in Catesby's *Natural History of Carolina, Florida, and the Bahama Islands* (1731—1748), seven are discoveries of Audubon's, and the rest are divided among several other authors.

Manner of treatment is as follows: First the current name of the species as it appears in the A. O. U. *Check-List*, Latin and English, with the authority; this is followed by the citation of the original account. Catesby's long, descriptive names are given in full, but not those applied by Linnaeus to Catesby's species. Similarly, with other authors, while the descriptions are cited, there are no entries of the names used by the describers.

Such papers as this are, of course, of great value in many ways, and of intense interest from the historical side. South Carolina offers a peculiarly rich field in the latter regard, with Catesby's early work in the region, and Audubon and Bachman in later years. The extent of their activities within the state are outlined in the introduction, but too briefly to be satisfactory. It is to be regretted that the author did not go more into detail in this regard, for his conclusions in many instances differ from those of previously accepted authorities, and a fuller account might be explanatory of his reasons. For many of the species which he ascribes unequivocally to South Carolina, the A. O. U. *Check-List* gives type localities as possibly Carolina, but with an alternative of some other region, there having evidently been doubt in the matter; in some few cases there is flat disagreement between the *Check-List*

and Mr. Wayne. In all these instances it would have added much to the value of the paper to have given the steps by which the author's conclusions were reached.

"More birds have been made known to science from South Carolina than from any other state except California. Indeed, of valid species South Carolina has nearly twice as many as California, the great majority credited to the latter state being merely subspecies." Without wishing in any way to dim the glory of South Carolina's claim, we cannot help commenting upon the curious implication as regards the relative "importance" of species and subspecies.

Typographically the paper is excellent, showing in every detail the results of skilled and careful editorial work.—H. S. SWARTH.

PETS | THEIR HISTORY AND CARE | by LEE S. CRANDALL | | with illustrations from life | [Vignette] | New York | Henry Holt and Company; 372 pp., illustrated. Price \$2.00. Our copy received May 8, 1917.

The book here reviewed is dedicated by the author "To my parents who endured much from a pet-loving son." All parents of pet-loving sons should find solace in the carefully written pages in this book. Mr. Crandall, the author, is assistant curator of birds in the New York Zoological Park and every one who has seen the many healthy and contented birds living under his charge will accept his recommendations as authoritative.

The book is divided into four sections, the first dealing with the care of the domesticated mammals which are usually kept as pets, with descriptions of the different breeds, and with suggestions for the care of such small wild animals as are apt to find their way into the custody of the small boy. The second section includes the birds. Their general care is considered, foods, diseases, and types of cages or aviaries. Brief descriptions are given of the many foreign and native song birds which are most frequently kept as pets, as well as the domesticated pigeons, parrots and bantams.

Snakes, lizards, alligators, turtles, frogs and toads are so kindly dealt with in the third section that one almost believes that the youngster who yearns for their companionship shows much better judgment than does the adult who spurns them.

The last section is devoted to the care and maintenance of the home aquarium; and a list of desirable tenants is given, to-

gether with an account of their varying needs and habits.

The appendix contains a chapter on theories of breeding and a list of reference works. The list will undoubtedly prove useful, but the chapter on the theories of breeding is a disappointment. It is an endeavor to explain in a few short pages the theories of Mendel, Darwin, De Vries, Galton, and Davenport, and it leaves the reader with a conviction of his own utter confusion, and a suspicion that the author, too, was confused.

The book is well illustrated with nearly a hundred reproductions from photographs.

There is among those who come in contact with children a growing belief that in fostering and developing a child's fondness for pets we foster and develop highly desirable character traits in the child himself, and, as Mr. Crandall suggests in the preface to his book, "many of the problems which perplex the adolescent adjust themselves normally by constant contact with reproductive life."

Mr. Crandall's book is the best and most complete work which we have seen in the field treated, and we suggest that every pet-loving son procure a copy for his parents.—
H. W. GRINNELL.

MINUTES OF COOPER CLUB MEETINGS

NORTHERN DIVISION

MARCH.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology on March 15 at eight o'clock. Dr. Evermann called the meeting to order with the following members in attendance: Messrs. Benton, Carriger, Evermann, Grinnell, Hanford, La Jeunesse, Squires, Storer, Wright; Mesdames Allen, Culver, Ferguson, Field, Grinnell, Head, Meade, Newhall, Witter. Visitors: Messrs. Austin, Wm. Hall, Meade; Mesdames Evermann, Boyle, Stone, Straight.

The minutes of the February meeting were read and corrected, and the minutes of the February meeting of the Southern Division were read. Mrs. E. G. Witter, whose name was proposed at the January meeting, and the eleven names passed on for approval from the December and January minutes of the Southern Division, were elected to membership.

The name of J. Harold Evans of Santa Rosa was proposed by H. W. Carriger, and that of Paul J. Hartmann, 1118½ Maple

Ave., Los Angeles, by W. Lee Chambers from the Southern Division.

The resignation of Miss Alice F. Crane was accepted.

A very interesting account of the Birds of San Francisco County was given by Rev. W. A. Squires. The discussion of conditions in Golden Gate Park led to a motion by Dr. Grinnell that a committee be appointed to act in conjunction with the Audubon Association of the Pacific with reference to the attempted extermination of supposedly injurious species in Golden Gate Park. The President appointed on this committee Messrs. Squires, Carriger and Lastreto. Adjourned.—AMELIA S. ALLEN, *Secretary*.

APRIL.—The regular meeting of the Cooper Ornithological Club (Northern Division) was held at the Museum of Vertebrate Zoology, April 19, 1917. There were present: Messrs. Bryant, Evermann, Palmer, Storer, Swarth, Wright; Mesdames Allen, Bryant, Culver, Ferguson, Grinnell, and Knappen. Messrs. Allen and Linforth, Miss Straight and Mrs. Swarth were visitors.

The minutes of the March meeting were read and approved, followed by the minutes of the March meeting of the Southern Division and of the January and February meetings of the Intermountain Chapter. Mr. J. Harold Evans was elected to membership; also Mr. Paul J. Hartmann, whose name was received from the Southern Division.

The following names were proposed for membership: Mrs. Bessie W. Kibbe, 1534 Grove St., Berkeley, by Mr. Swarth; Mrs. Edwin T. Blake, 2233 Piedmont Ave., Berkeley, and Mrs. Arthur Hubbard Cole, 2827 Hillegass Ave., Berkeley, by Mrs. J. T. Allen; also the five names presented at the March meeting of the Southern Division.

Mr. Storer reported to the Club the substance of an inquiry from Mr. E. W. Nelson, Chief of the Biological Survey, with regard to the destruction of water-birds by crude oil floating on the surface of the Pacific Ocean. Pres. Lastreto of the Audubon Association of the Pacific reported that he had been in correspondence with the Inspector of the 18th Lighthouse District, who wrote that unless the discharge of oil in the neighborhood of the Farallones could be prevented, the colonies of nesting birds on those islands would soon be destroyed. Other investigations as to the custom of discharging oil were reported. Dr. Bryant moved the appointment by the Chair of a committee to investigate the question and report at the next meeting. Carried.