

largely insects, and for the most part is of species which are now thought to be either noxious or else harmless so far as man's interests are concerned.

A highly commendable feature of these two publications of the Survey is the inclusion of generic and specific determination of the insects wherever possible. Later, as the life histories and economic status of our insects become better known, it will be possible, from these present studies on bird food, to restate the economic value of our birds in terms of the insects upon which they feed.

In "Game laws for 1915" Messrs. Palmer, Bancroft and Earnshaw present the Survey's sixteenth annual summary of game laws in the United States and Canada. New measures enacted during the year are listed and the more important ones briefly discussed. The federal regulations for the protection of migratory birds are given in full and there are tables, giving for each of the states in the Union and for the provinces of Canada, the open seasons, bag limits, minimum age limits for hunting, license requirements, and a directory of officials from whom state game laws may be obtained. The bulletin is useful in affording up-to-date information for the use of conservationists, and also for showing one stage in the ever changing balance between the hunting interests and the protectionists.

In one of the last papers he wrote, that on "Bird Migration", Professor Cooke brought together generalizations arrived at by his study of the migration of American birds for more than thirty years. Here are treated such matters as causes of migration, relation of migration to weather and temperature, time, distance, and rates of migration, different kinds of migration routes, relation of migration to other activities in the life of birds, casualties during migration, and evolution of migration routes. Each topic is discussed upon the basis of evidence drawn from the vast array of such material accumulated during the lifetime of the author. Numerous text figures (maps) are illustrative of the various phenomena discussed. Altogether this paper appeals to the reviewer as about the best thing of its kind which has appeared anywhere. We can only regret that it is not ten times as large, that we might have learned more of this

<sup>1</sup>Game Laws for 1915. By T. S. Palmer, W. F. Bancroft and F. L. Earnshaw. U. S. Dept. Agric., Farmers' Bull. 692, pp. 1-64, 4 figs. in text. Issued Sept. 14, 1915.

<sup>2</sup>Bird Migration. By Wells W. Cooke. U. S. Dept. Agric., Bull. 185, pp. 1-47, pls. I-IV, 20 figs. in text. Issued April 17, 1915.

fascinating subject from one who was qualified to speak with such authority upon it.—  
TRACY I. STORER.

## MINUTES OF COOPER CLUB MEETINGS

### NORTHERN DIVISION

MARCH.—The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held at the Academy of Sciences in Golden Gate Park, San Francisco, March 16, 1916, with an attendance of thirty-three. The minutes of the February meeting were read and approved, and the minutes of the Southern Division and of the Inter-Mountain Chapter for February were also read.

Mrs. Nellie Knappen was elected to membership in the Club, and the following names were proposed: Pirie Davidson, San Rafael, Calif., proposed by Mr. Tracy I. Storer; Dr. Frank B. Davis, 401 Vernon St., Oakland, by Mrs. Edward A. Kluegel; E. N. Hart, 940 Pacific Ave., Alameda, by Harold E. Hansen; S. Griswold Morley, 2535 Etna St., Berkeley, by Dr. J. Grinnell; Webster Robinson, Los Angeles, by Mr. Swarth; Norman H. Wood, Ann Arbor, Mich., and Donald D. McLean, Coulterville, Calif., by W. Lee Chambers; Edmund C. Jaeger, Palm Springs, Calif., by C. O. Esterly; and Edward Howe Forbush, Boston, Mass., by W. Leon Dawson.

Mr. Storer presented to the Club the contents of a letter from Mr. Albert Barrows, Secretary of the Pacific Division of the American Association for the Advancement of Science, asking the Cooper Club to present a program at a meeting of the Association to be held in San Diego, August 9 to 12. Mr. Harold Bryant was appointed by the President to prepare a program for this occasion.

Dr. Barton W. Evermann then gave a most interesting report of an intensive study of the physical and the biological conditions of Lake Maxinkuckee, Indiana, showing the conditions and inter-relations of the different kinds of life found to exist in and about the lake. Adjourned.—AMELIA S. ALLEN, Secretary.

### SOUTHERN DIVISION

FEBRUARY.—Regular meeting of the Southern Division of the Cooper Ornithological Club was held at the Museum of History, Science and Art, Thursday evening, February 24, 1916, with thirty-three members and visitors in attendance.

In the absence of Mr. Swarth, President Law appointed L. E. Wyman secretary

*pro tem.* On motion of Mr. Robertson the members voted to hold election of officers before considering other business matters. Mr. Daggett moved that the acting Secretary be instructed to cast the affirmative vote of the club for officers for the ensuing year as follows: President, Dr. L. H. Miller; Vice-President, J. Eugene Law; Secretary, L. E. Wyman. Motion carried. Nominees declared elected and immediately assumed office.

Minutes of the December meeting were read and approved, followed by reading of the minutes of the January meeting of the Northern Division, and of minutes of both December and January meetings of the Inter-Mountain Chapter.

New members were elected as follows: S. Harrison Eaton, North Bend, Ohio; Geo. L. Fordyce, Youngstown, Ohio; H. H. Cleaves, New Brighton, N. Y.; Norman DeWitt Betts, Madison, Wis.; A. H. Vilas, Santa Barbara, Calif.; and Thomas Stevenson Bradlee, Boston, Mass. New names presented, to be voted on at the March meeting: Webster Robinson, Los Angeles, by Mr. Swarth; Norman H. Wood, Ann Arbor, Mich., and Donald D. McLean, Coulterville, Calif., by W. Lee Chambers; Curtis Wright, Jr., Berkeley, Calif., and H. W. Daniels, Claremont, Calif., by H. C. Bryant; Edna A. Hannibal, San Jose, Calif., by J. O. Snyder; Harold E. Hansen, San Francisco, Calif., by Tracy I. Storer; Edmund C. Jaeger, Palm Springs, Calif., by C. O. Esterly; and Edward Howe Forbush, Boston, Mass., by W. Leon Dawson.

The Business Managers' report for 1915 was submitted, but owing to the lateness of the hour it was held over for reading and consideration at the next meeting.

Pres. Miller reported receipt of a letter relative to the resignation of Dr. W. P. Taylor as Cooper Club representative on the Executive Committee of the California Associated Societies for the Conservation of Wild Life. On motion of Mr. Law, seconded by Mr. Robertson, it was voted that Mr. Tracy I. Storer be appointed to fill the vacancy. Motion carried.

There being no further business the members and visitors listened to an interesting and instructive talk by Mr. W. Leon Dawson on the "Testimony of the Egg and the Task of Comparative Oology." Mr. Dawson presented in a clear and forceful manner numerous scientific angles of Oology which are unknown to the average collector and unfamiliar to many of those more advanced in this science. Adjourned.—L. E. WYMAN, *Secretary*.

#### INTER-MOUNTAIN CHAPTER

The Inter-Mountain Chapter of the Cooper Ornithological Club, met at Salt Lake City, Utah, March 8, 1916, in the office of Dr. D. Moore Lindsay, Boston Building. Meeting opened at 8:30 P. M., President Chambers in the chair. Members in attendance were: A. D. Boyle, Prof. J. H. Paul, J. Sugden, Jr., Mr. and Mrs. J. A. Mullen, Mr. and Mrs. A. O. Treganza, and four visitors. Minutes of the February meeting read and approved.

A letter was read by the Secretary relative to development of National Parks, specifically Yosemite. Motion was made by Dr. Lindsay, seconded by Prof. Paul, that the Secretary be authorized to write Senators Sutherland and Smoot and Congressmen Mays and Howell recommending this motion. President Chambers gave a brief summary of the mortality of bird life in different counties of the State owing to the severe winter, and the method of feeding the wild birds. Recommendation was made to formally ratify and endorse the Game Commissioner's work in restricting the cat and establishing bird sanctuaries. Recommendation was made that an educational leaflet be prepared for publication by the State Department of Agriculture, special reference to be made to bird protection and season and flight of migratory birds.

Motion was made, seconded by Dr. Lindsay, that the President be authorized to ask assistance from Boy Scouts relative to protection and violation of game laws. A. D. Boyle was appointed to lay the matter before the Scout Masters. Suggestion was made that the Secretary write Dr. Plummer relative to cats as bird destroyers; also notify C. Barnes to assist on publicity work. Motion was made that a special meeting be held for March 15th. Meeting adjourned 10:00 P. M.—MRS. A. O. TREGANZA, *Secretary*.

An informal meeting was held March 15 with President Chambers in the chair. Eleven members and ten visitors were in attendance. The subject under discussion was Bird Migration. Mrs. Treganza read from Wells W. Cooke's "Bird Migration". President Chambers spoke of the Salt Lake Valley as lying within an important migration route, recounting many species noted. Three specimens of Avocet were brought in. An informal discussion followed. Meeting adjourned at 10:00 P. M.—MRS. A. O. TREGANZA, *Secretary*.