

commoner species with accompanying figures of pellets, are added for the benefit of the agriculturist. The result of the stomach and pellet examinations are given in tabular form. Data consisting of the date, locality, and the kind and number of insects and animals making up the food, is given for each stomach and pellet examination. These tables answer for the owls, therefore, two questions submitted by the author in his introduction: How much food do birds consume? and: What kind of food do they take?

According to the tables, the field mouse (*Microtus arvalis*), and the Waldmaus (*Mus sylvaticus*) and the house mouse (*Mus musculus*) is the food most often taken. Shrews, sparrows, frogs, and insects, and even occasionally larger mammals such as the rabbit and weasel, were found to make up a small percentage of the food.

Evidence of the occurrence of certain small mammals abundant in Germany but seldom recorded in Hungary, was presented by the discovery of an Ackermaus (*Microtus agrestis*) in the stomach of an Uhu (*Bubo bubo*), and of the nordische Wuhlratte (*Mus ratticeps*) in the stomach of a Waldkauz (*Syrnium aluco*).

Constant reference to the results of similar investigations in Germany strengthens the evidence. The large number of pellet examinations recorded, shows the interest taken in this line of work in Germany. Of the Schleiereule (*Strix flammea*) alone, 703, 9,472, and 2,821 pellets have been examined by three different investigators.

Dr. Greschik's doctor's thesis entitled: "Beitrage zur Kenntnis der Molaren der einheimischen Murinen," published in 1910 *Aquila*, was a contribution of permanent value. The determination of seeds, insects, and animals found in the stomachs of birds is not an easy task, and the presentation of improved methods adds to the accuracy and efficiency of future workers in the field. The method of determining species of mice by means of tooth characters described by Dr. Greschik furnishes a dependable method of determining species.

We therefore recognize in Dr. Greschik's present contribution the same admirable type of work as that to be seen in his thesis. The desire to furnish "positive data" as to the food of birds is the ideal that should lead and influence every economic ornithologist. May the day be hastened when still more of this type of work will be seen in our ornithological and agricultural publications.—H. C. BRYANT.

MICHIGAN BIRD LIFE. BY WALTER BRADFORD BARROWS, S. B. [Special Bulletin of the Department of Zoology and Physiology,

Michigan Agricultural College, 1912, pp. i-xiv, 1-822, 70 pls., 152 figs. in text].

This should be an extremely useful book to anyone interested in Michigan birds—to the specialist desiring accurate, thorough information regarding the species occurring in the state, to the student endeavoring to identify birds, either alive or in the hand, or to the "average citizen" out for sport or recreation, who chances upon some interesting specimen. The treatment seems adequate to meet any of these contingencies. Descriptions are brief, but accurate, bringing out clearly the salient features of the species. The accounts of the life histories and status within the state of the various species treated, have evidently been most carefully drawn up; and in the doubtful cases, such as *Bonasa u. umbellus* and *B. u. togata*, the facts in the case are impartially submitted, while the conclusions drawn seem sound and sensible. "Keys" are used, but not to excess, and there is a sufficiency of excellent illustrations so that the person needing the "key" (and who but seldom uses it) will in many cases be able to utilize the pictures as short cuts to the information desired.

The introduction may be profitably read and studied by ornithologists of any region, the author's remarks on distribution, the changes produced by varying conditions in the state, methods of study, migration, and kindred subjects being eminently interesting and suggestive.

On the whole this account of the birds of Michigan appeals to the reviewer as a most admirable piece of work. Not the least of its merits is the fact that it has been published in such a way as to be obtainable by those who will most need and appreciate it.—H. S. SWARTH.

## MINUTES OF COOPER CLUB MEETINGS

### SOUTHERN DIVISION

AUGUST.—The August meeting of the Southern Division of the Cooper Ornithological Club was held on August 29, 1912, in the Committee Room of the Museum of History, Science and Art. Mr. F. S. Daggett was elected temporary chairman.

The following members were present: Appleton, Daggett, Law, Rich, Zahn.

The minutes of the Southern Division for July were read and approved. Upon motion of Dr. Rich, seconded by Mr. Zahn, and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership, Messrs. Samuel Hubbard, Jr., Jesse J. Wood, William A.

Magee, Jr., and Mrs. J. W. Wheeler, nominated at the last meeting.

Applications for membership were presented as follows: Frank C. Clarke, 218 East Hall, University of Cal., Berkeley, Calif., proposed by H. C. Bryant; Harry Telford, Klamath Falls, Oregon, proposed by Stanley G. Jewett; L. Alva Lewis, 809 Yeon Bldg., Portland, Oregon, proposed by Stanley G. Jewett; F. H. Fawcett, Narrows, Harney Co., Oregon, proposed by Stanley G. Jewett.

Upon motion by Mr. Law, seconded by Dr. Rich and unanimously carried, the Southern Division approved heartily the action of the Northern Division in electing to honorary membership Mr. Frank Stephens of San Diego.

The Secretary read an interesting paper on "Bats as Desirable Citizens," by J. Grinnell, which called forth much discussion on a little known subject.

On adjournment, the members present were shown through the museum room and noted many interesting additions since the last meeting. Adjourned.—J. E. LAW, *Secretary*.

SEPTEMBER.—The September meeting of the Southern Division of the Cooper Ornithological Club was held on September 26, 1912, in the Committee Room of the Museum of History, Science and Art, with vice-president Lelande in the chair.

The following members were present: Chambers, Cookman, Daggett, Davis, Howell, Hubbs, Lelande, Miller, Owen, Rich, Robertson, Van Rossem, Willett, Wood, and Law; and as visitors, Mr. and Mrs. Sowers.

The minutes of the August meeting were read and approved, and the minutes of the Northern Division for September were read. Upon motion by Mr. Willett, seconded by Mr. Miller and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership Messrs. Frank C. Clarke, Harry Telford, L. Alva Lewis and F. H. Fawcett, proposed at the last meeting.

Applications for membership were presented as follows: Alfred Cookman, Los Angeles, proposed by Evan Davis; Hans Hochbaum, Los Angeles, proposed by Loye Miller; Morris Johnson, Valley City, North Dakota, proposed by Vernon Bailey; Pierre E. Letchworth, Jr., Covina, proposed by A. B. Howell; E. W. Merrill, Sitka, Alaska, proposed by G. Willett; Wilson P. Gee, Berkeley, proposed by H. C. Bryant; Forrest S. Hanford, Santa Maria, proposed by H. W. Carriger, and John N. Loshinski, Berkeley, proposed by H. C. Bryant.

The resignation of Mr. Clarence Birdseye was accepted with regret. Mr. Birdseye expects to spend considerable time in extreme

Northeastern America. The Committee on Game Protection was empowered to consider and take final action with regard to the proposed combination to be known as the Associated Societies for the Protection of Wild Life. The Secretary was instructed to get more data with regard to the probable and possible expense of such Association. The action of the Northern Division was approved, and the Secretary of the Southern Division was accordingly instructed to sign and forward a letter to the American Ornithologists' Union suggesting that the Society meet in San Francisco in 1915. The following amendment to the Constitution was adopted, subject to the approval of the Northern Division: Article 10, Section 4 to be repealed and a new Article 10, Section 4 to take its place and to read as follows: "All members in good standing and all honorary members shall receive THE CONDOR free of charge, and shall be entitled to Avifaunas as they appear, under whatever conditions the Business Manager at the time deems expedient."

Mr. George Willett then gave a very interesting talk on his recent trip to Alaska for the Biological Survey, on which he obtained and observed many rare birds. Mr. Willett exhibited specimens of the Horned Puffin, Ancient, Marbled and Kittlitz Murrelets, Sooty Grouse, four specimens of Dixon Ptarmigan, of which there are but few other specimens in collections, and a series of the Fork-tailed Petrel, from downy young to adult. Mr. Willett in less than two months, observed eighty-five species of birds. Adjourned.—J. E. LAW, *Secretary*.

#### NORTHERN DIVISION

SEPTEMBER.—The September meeting of the Northern Division was held at the Museum of Vertebrate Zoology, Saturday evening, September 21, with President Coggins in the chair and the following members present: Messrs. Bryant, Carriger, Coggins, Grinnell, Mailliard, Shelton, Swarth and Taylor. Mrs. Grinnell and J. N. Loshinski were visitors. The minutes of the August meeting were read and approved, followed by the Southern Division August minutes.

New names were proposed as follows: W. B. Bell, Agricultural College, North Dakota; C. C. Schmidt, University, North Dakota; M. Johnson, Valley City, North Dakota; H. V. Williams, Crafton, North Dakota; and A. Eastgate, Tolna, North Dakota, all presented by Mr. Vernon Bailey; W. P. Gee, Berkeley, J. N. Loshinsky, Berkeley, and F. C. Clarke, Berkeley, presented by H. C. Bryant; and F. S. Hanford, presented by H. W. Carriger.

W. P. Taylor, chairman of the committee

on conservation of wild life, gave a report, briefly outlining the work accomplished by the committee, and sketching some of the plans for the future.

It was suggested that the Club renew its petition to the American Ornithologists' Union, requesting that society to hold its annual meeting in 1915 in San Francisco, jointly with the Cooper Club, as contained in a resolution passed at the October, 1911, meeting. The secretary was instructed to draft such a proposal and send it to the Southern Division for its approval.

The paper of the evening was "The Relation of Birds to a Grasshopper Outbreak in California," by H. C. Bryant, presenting some of the results of a study of the actions and diet of certain species of birds during a plague of grasshoppers in the San Joaquin Valley. Adjourned.—H. S. SWARTH, *Secretary*.

OCTOBER.—The October meeting of the Northern Division was held at the Museum of Vertebrate Zoology on Saturday evening, October 19, with President Coggins in the chair, and the following members present: Bryant, Coggins, Gifford, Heinemann, Joseph Mailliard, Miner, Shelton and Swarth. Mr. A. L. Barrows was a visitor. The Northern Division minutes for September were read and approved, followed by the reading of the Southern Division September minutes.

The following individuals were elected to membership in the club: F. S. Hanford, J. N. Loshinski, W. P. Gee, F. C. Clarke, W. B. Bell, C. C. Schmidt, M. Johnson, H. V. Williams, A. Eastgate. New names were presented as follows: Hilda Wood Grinnell, proposed by J. Grinnell; A. L. Barrows, Berkeley, by H. C. Bryant; Hans. Hochbaum, Los Angeles, by L. H. Miller; A. Cookman, Los Angeles, by Evan Davis; P. E. Letchworth Jr., Covina, by A. B. Howell; E. W. Merrill, Sitka, Alaska, by G. Willett; and W. A. Squires, Stockton, by W. Lee Chambers.

The only new business was the ratification of the amendment to the Constitution dealing with the distribution of Club publications, already passed by the Southern Division.

Mr. Coggins read some extracts from Cassinia, as of especial interest to California ornithologists. In the absence of Mr. Taylor the report of the conservation committee was read by Mr. Bryant. Mr. Gifford, in the course of an account of some of his experiences with wild ducks in an aviary, made a strong plea for the great value of experimental work with captive birds, as supplemental to field work and the study of museum material. Some of his remarks were illustrated with study skins showing certain of

the more unusual plumages; and the speaker pointed out the danger of drawing erroneous conclusions from the mere observation of these conditions without a thorough knowledge of the life history of the bird. His remarks called forth a rather extended discussion of the subject.

Mr. Bryant had on exhibition a series of wall charts showing the food of certain species of birds, these being destined for use in an exhibit which the State Fish and Game Commission is to place in the Alameda County Fair. Adjourned.—H. S. SWARTH, *Secretary*.

#### REPORT OF ORGANIZATION MEETING, CALIFORNIA ASSOCIATED SOCIETIES FOR THE CONSERVATION OF WILD LIFE

It now (November 14) becomes my pleasant duty to transmit a record of the organization meeting of which mention is made on page 227. Representatives of nine organizations, as well as all the members of the Cooper Club Committee on Conservation of Wild Life (Northern Division), and Secretary Schaeffle of the Fish and Game Commission, were present at the meeting. Instead of a membership of five societies and between one and two thousand individuals, as prophesied on page 228 of this issue, the California Associated Societies for the Conservation of Wild Life was inaugurated with a constituency of nine societies having a total membership of between nine and ten thousand persons.

The Executive Committee of the new association consists of the following persons: Dr. William F. Bade, Sierra Club; Roy E. Dickerson, Paleontological Society of the Pacific Coast; J. Grinnell, California Academy of Sciences; Matthew McCurrie, State Humane Association and San Francisco Society for the Prevention of Cruelty to Animals; W. Leon Dawson, State Audubon Society of California; Professor L. L. Burlingame, Biological Society of the Pacific Coast; J. H. Cutter, Tamalpais Conservation Club; W. P. Taylor, Cooper Ornithological Club. Dr. William F. Bade of the Sierra Club was elected President of the California Associated Societies, and W. P. Taylor of the Cooper Club, Secretary.

A program of practical work was outlined, and it is intended to push with all diligence the passage of laws desired for wise conservation of wild life.

The most important and immediately desired measures are the following: (1) A no-sale of American-killed wild game law. (2) A law placing all assistants and deputies of the Fish and Game Commission under Civil Service. (3) The absolute protection of the Red-head, Wood Duck, Ibis, Shore-birds, Rail, Band-tailed Pigeon, Mourning Dove, and Sea Otter.

W. P. TAYLOR, *Chairman*  
*Committee on Conservation of Wild Life,*  
*Northern Division.*