

of birds were feeding extensively upon grasshoppers. Taking into account numbers of individuals as well as destructive capacity of each species, the relative importance of the five ablest destroyers was as follows: (1) Bicolored Blackbird, (2) Western Meadowlark, (3) Killdeer, (4) Bullock Oriole, and (5) California Shrike.

It is shown that with abnormal increase of such an insect as the grasshopper, many birds appropriate this food source for the time being, and at once factor in checking the outbreak. The principle is emphasized that birds turn to the sort of food most readily available. While figures are given which show conclusively that the birds of the region could not have controlled the plague after once well under way, the author reasons by inference that many incipient insect outbreaks may be checked by birds at the outset, so that they never reach a point where great damage results. In the Los Banos outbreak, the insects had become so abundant locally that the birds when under observation made no noticeable headway against the pests from day to day; but it was possible to figure the value of the birds in hastening the end of the insect raid, and even in lessening the amount of aggregate damage sustained at the time.

Mr. Bryant's paper is commendable in its accurate detail of fact. More particularly is it admirable in the calm and judicious mode of drawing inductions. There is no discordant note of sentimentality to mar the paper as a scientific contribution.—J. GRINNELL.

A REVISION OF THE FORMS OF THE GREAT BLUE HERON (*ARDEA HERODIAS* LINNAEUS). By HARRY C. OBERHOLSER (Proc. U. S. Nat. Mus., vol. 43, December 12, 1912, pp. 531-559).

In this treatment of the Great Blue Heron ten geographical races are recognized, four of them being first described here. Descriptions, critical comments, and other details of the work are presented with all the painstaking care and accuracy characterizing previous contributions of the author, whose series of studies of various difficult groups forms such a valuable portion of the ornithological literature of recent years.

The paper under consideration is of especial interest to California ornithologists, in that two of the new subspecies described are from this state. *Ardea herodias hyperonca*, type locality Baird, California, is the name applied to the form inhabiting California in general, excepting the southeastern desert region and the Santa Barbara Islands. *Hyperonca* is distinguished from the Eastern *A. h. herodias* by its greater size alone, being exactly similar in color; as the much paler colored *treganzai* occupies the desert and Great

Basin regions intervening between the habitats of *hyperonca* and *herodias*, it is quite logical to recognize in nomenclature the differences between the two latter forms.

As much cannot be said of the island subspecies described. The characterization of *Ardea herodias oligista* is based upon a single immature bird from San Clemente Island, and such sweeping generalizations are made from the weak basis afforded by this one specimen that it almost appears that the author is giving expression to a preconceived belief that there *should* be a separate island subspecies, rather than to a dispassionate exposition of what his material actually reveals.

The only difference claimed for the island race is its smaller size. Coloration is declared to be the same as in the mainland form *hyperonca*. The one specimen available, though admittedly an immature bird, is said to be "evidently full grown". From the date of capture, August 26, this may, perhaps, be questioned. At any rate it is unfortunate that the only character ascribed to the race is one that might be explained by the immaturity of the single specimen examined. The subspecies described upon the strength of this one young bird from San Clemente Island is given a range including "Santa Cruz, San Nicolas, Anacapa, Santa Catalina, and probably other islands of the group", although certain of these islands have as little in common with one another as they have with the mainland.

We are also told that "this race is probably confined to the Santa Barbara Islands, as the species is said to be resident there". Just what grounds there are for the latter assertion is not apparent, and it is doubtful if the statement could be proved. The islands are such a short distance from the mainland that the intervening channels can be but inconsiderable barriers to a strong flying bird like the Great Blue Heron. In the present paper (page 536) we are told of a specimen of *A. h. herodias* taken at sea about 130 miles off the coast of New Jersey! Furthermore, a favorite feeding ground of the herons about the islands is on the extensive beds of floating kelp, which support the birds easily, and form convenient resting places at short intervals, should any such be required.

Altogether, even conceding the possibility of the existence of a race of *Ardea herodias* confined to the Santa Barbara Islands, we cannot admit it to be proved, nor even demonstrated to be reasonably probable, in the paper under discussion, while there are many facts that argue against it.

The description of the subspecies *oligista* seems ill considered, and is an undoubted blemish in what appears to be in other respects an excellent piece of work. It would

have been quite sufficient to have pointed out the peculiarities of the specimen at hand, and left to future workers the task of determining their meaning.—H. S. SWARTH.

## MINUTES OF COOPER CLUB MEETINGS

### SOUTHERN DIVISION

OCTOBER.—The October meeting of the Southern Division of the Cooper Ornithological Club was held on October 28, 1912, at the residence of Dr. Loye Holmes Miller, 6066 Hayes Avenue, Highland Park, California. On motion duly made and seconded, Mr. Daggett was elected Temporary Chairman.

The following members were present:—Mrs. Harmon and Messrs. Chambers, Daggett, Layne, Howell, Miller, Myers, Rich, Tracy, van Rossem, Willett, Zahn and Law; and, as visitors, Mrs. Loye Holmes Miller, Mrs. Tracy, and the Misses Van Deusen.

The minutes of the September meeting were read and approved. Upon motion by Dr. Rich, seconded by Mr. Willett and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership, Messrs. Alfred Cookman, Wilson P. Gee, Forrest S. Hanford, Hans Hochbaum, Morris Johnson, Pierre E. Letchworth, Jr., John N. Loshinski, and E. W. Merrill, proposed at the last meeting.

Applications for membership were presented as follows: Albert L. Barrows, 1430 Arch St., Berkeley, Calif., proposed by H. C. Bryant; James H. Gaut, 219 Chamber of Commerce Bldg., Pasadena, Calif., proposed by A. B. Howell; Hilda Wood Grinnell, 2543 Durant Ave., Berkeley, Calif., proposed by J. Grinnell; J. Gregg Layne, 128 S. Normandic Ave., Los Angeles, Calif., proposed by J. E. Law; W. A. Squires, 1137 E. Miner Ave., Stockton, Calif., proposed by W. Lee Chambers; Edward Wall, San Bernardino, Calif., proposed by A. B. Howell.

The Secretary read an answer from the Northern Division, to our letter of inquiry in regard to the expense of the California Associated Societies for the Conservation of Wild Life, which was referred to the appropriate Committee.

The Secretary then read the finding of the Committee appointed to investigate the charges against Pingree I. Osburn, with the recommendation that he be expelled from the Club. Upon motion by Mr. Zahn, seconded by Mr. Miller and duly carried, the report of the Committee was accepted, and the Secretary instructed to notify Mr. Osburn of the charges and that he would be given an op-

portunity at the next meeting to refute same.

The Secretary then read J. Grinnell's paper on the Band-tailed Pigeon which excited much interest.

After adjournment those present partook of refreshments and hob-nobbed about Mr. Miller's beautiful Arroyo Seco home. Mr. Miller has built his home on the very brink of the great Arroyo Seco so that he can look down on the tops of the highest sycamores within a stone's throw. It is an ideal spot in which to study birds.—J. E. LAW, *Secretary*.

NOVEMBER.—The November meeting of the Southern Division of the Cooper Ornithological Club was held on November 27, 1912, at the Museum of History, Science and Art, Los Angeles. On motion duly made and seconded, Mr. Willet was elected temporary Chairman.

The following members were present: Messrs. Chambers, Daggett, Howell, Kimball, Layne, Linton, Rich, Robertson, Willett, Zahn, Law.

The minutes of the October meeting were read and approved. Upon motion by Mr. Robertson, seconded by Mr. Rich and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership, Messrs. Albert L. Barrows, James H. Gaut, J. Gregg Layne, W. A. Squires and Edward Wall, and Mrs. Hilda Wood Grinnell.

Applications for membership were presented as follows: Mrs. Eugene Overton, 651 W. 23rd St., Los Angeles, Calif., proposed by George Willett; Mrs. Edwin H. Husler, 434 W. 20th St., Los Angeles, Calif., proposed by George Willett; Mrs. F. B. Bicknell, 419 N. Broadway, Los Angeles, Calif., proposed by F. S. Daggett; W. B. Bell, Agricultural College, North Dakota, proposed by Vernon Bailey; Frank C. Clarke, 218 East Hall, University of Calif., Berkeley, Calif., proposed by H. C. Bryant; Alf. Eastgate, Tolna, N. Dak., proposed by Vernon Bailey; Joseph A. Sweeney, Reville, N. Y., proposed by W. Lee Chambers.

Upon motion duly made and unanimously carried, the report of the Committee appointed to investigate the charges against Mr. Pingree I. Osburn, was accepted and ordered filed. Mr. Osburn was ordered expelled from the Club and his name stricken from the rolls.

A letter from Mr. Frank Stephens, thanking the Club for making him an honorary member was read.

Upon motion made by Mr. Robertson and seconded by Dr. Rich, and duly carried, the action of the Northern Division in regard to the Pacific Association of Scientific Societies as to annual meeting and other matters, was approved.