

drawings of some of the Pseudosuchian types—structural details as well as restorations,—these curious vertebrates being thought to mark the first departure of the avian descent-line from the reptilian; we are given vivid word-pictures of the probable ways in which bipedal mode of walking, the use of the forelimbs as wings, the development of feathers, and the marvelous thermoregulatory system of modern birds developed from a quadrupedal, scaly, cold-blooded saurian.

A. Landsborough Thomson is the son of J. Arthur Thomson, who wrote the recent "Biology of Birds". Both men have done their work at the University of Aberdeen. The younger man has for some years been engaged in well-planned studies of bird migration, in part by the "marking" (banding) method. His present book is a conscientious summary of the facts and theories of bird migration down to date. We are led to take his statements and conclusions with entire confidence in their worthiness, when we find that the little segment of the literature on the subject with which we happen to be familiar has been handled by the author with accuracy as to fact and balanced judgment as to implication. The American contributors in the field of bird migration, J. A. Allen, Brewster, Cooke, and Watson and Lashley, are given full and fair consideration; as is also accorded the recent, important work of von Lucanus and others, in Germany. Here one will find discussed and variously disposed of, the various theories, some purely or chiefly romantic, which have accompanied the development of our present concepts of the ways and means of bird migration.

In conclusion, A. L. Thomson says: "The general biological issues which are raised strike much deeper, and are much wider in their application, than the immediate problems of bird-migration with which this book has had to deal. . . . To the general biologist bird-migration offers an especially interesting example of instinctive behaviour, and in its further study we may hope to find new clues to the deeper secrets with which he is ultimately concerned."—J. GRINNELL, *Berkeley, California, June 2, 1926.*

#### MINUTES OF COOPER CLUB MEETINGS

##### SOUTHERN DIVISION

MARCH.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held at the Southwest Museum, Marmion Way, Los Angeles,

at 8 P. M., Tuesday, March 30. The meeting was called to order by President Bishop with the following members present: Mesdames Edwards and Ellis; Miss Potter; Messrs. Allen, Appleton, Bishop, Michener, Miller, Rich, and Robertson. Minutes of the February meeting were read and approved and the February minutes from the Northern Division read. No applications for membership were presented.

A request was presented from the Northern Division asking for permission to call the meeting with the A. A. A. S. at Mills College in June, a meeting of the entire club. On motion of Dr. Rich the Southern Division agreed to such a designation of the June meeting.

A communication was read from the Danish Minister in Washington, D. C., asking that this club send delegates to the International Ornithological Congress to be held in Denmark, May 24 to 29 of this year. Inasmuch as the matter of delegates from this country is being handled by the American Ornithologists' Union, no action was taken.

Dr. Bishop, as speaker of the evening, presented three short papers, "The Races of *Regulus calendula*," "The Meeting Grounds of the California and the White-rumped Shrikes", and "Geographic Variation in Certain *Limicolae*". Dr. Bishop's discussion centered about the determination and identification of subspecies. The fact that anatomical character is as liable to slight climatic variation as is plumage, was emphasized in the case of the shore birds.

Adjourned.—ALDEN H. MILLER, *Secretary.*

##### NORTHERN DIVISION

MARCH.—The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, Berkeley, on Thursday, March 25, at 8:00 P. M., with President Allen in the chair and more than sixty members and guests in attendance. Minutes of the Northern Division for February were read and approved. Minutes of the Southern Division for February were read. The name of William McClain Pursell, of no. 9, Eton Court, Berkeley, was proposed for membership by Hilda W. Grinnell.

An invitation was read from the Minister of Denmark to the Northern Division to send delegates to the International Ornithological Congress to be held at Copenhagen May 24 to May 29 of this year. Upon the motion of Mr. Kibbe, sec-

unded by Mr. Dixon, the Secretary was instructed to invite Dr. Alexander Wetmore to represent the Division at the Congress.

Attention of members was called to the first annual meeting of the Cooper Ornithological Club, to be held in Los Angeles early in April, and to the proposed meeting at Mills College on Thursday afternoon, June 17, in connection with the meetings of the Pacific Division of the American Association for the Advancement of Science.

Two members contributed interesting notes. Mr. Brighton C. Cain told of having watched Varied Thrushes feed upon the stipes of mushroom-like fungi and of having rescued two Screech Owls from the bottom of a forty-foot stovepipe; while Mr. James O. Wanzer told of having found the nest of a Great Horned Owl upon the ground and of finding, on March 6, the nest of a hummingbird containing two well-incubated eggs.

Mr. Joseph Grinnell gave an illustrated talk upon the "Bird-Life of Baja California". Of especial interest were the slides showing the variety and abundance of cacti, and Mr. Grinnell's account of the bird-life flourishing in that thorny environment. Adjourned.—HILDA W. GRINNELL, *Secretary*.

APRIL.—The April meeting of the Northern Division of the Cooper Ornithological Club was held in Room 212, Wheeler Hall, University of California, Berkeley, at 8:00 P. M., on Thursday, April 22, 1926. About 125 members and their friends met to listen to an illustrated talk by Dr. Brooke Nicholls upon "The Rare Egg-laying Mammals of Australia and the Marine and Bird Life of the Great Barrier Coral Reef." The speaker was introduced by Dr. Harold C. Bryant who spoke of Dr. Nicholls' boyhood life in Australia and his early interest in natural history. Dr. Nicholls' comprehensive talk and illustrations dealt in part with those two very interesting groups, the Monotremes and the Marsupials, filmed in their natural environment.

Following the lecture a short business session was held, presided over by President Allen. The name of Dr. LeRoy H. Briggs, 2635 Broderick Street, San Francisco, proposed by George W. Lane, was presented for membership. Members were reminded of the general meeting of the Cooper Club to be held at Mills College on June 17, 1926, in connection with the tenth annual meeting of the Pacific Division of

the American Association for the Advancement of Science.

The President stated that her attention had been called to the very fine exhibit of bird paintings assembled in Los Angeles for the first Annual Meeting of the Cooper Club, and she expressed a wish that a way might be found by which the paintings could be put on exhibition in San Francisco at the termination of their showing in the southern part of the state. Mr. Lastreto moved, seconded by Mr. Dixon, that the American Legion of Honor be approached in this matter by a committee appointed by the Chair. President Allen appointed, accordingly, Mr. Lastreto, Mr. Mailliard and Mr. Grinnell.

Mr. Kibbe brought before the meeting the fact that the migratory Game Refuge Bill has been favorably reported out of the Senate and House committees, and he moved that the Secretary be instructed to forward to members of Congress from California, resolutions urging favorable action. This motion was seconded by Mr. Mailliard. Dr. Evermann called attention to the fact that a certain faction is endeavoring to weaken the chances of survival of the Game Refuge bill by introducing another bill doing away with the connection of the Biological Survey as advisory administrator of the refuges provided for in the bill; whereupon Mr. Kibbe revised his resolution, which finally read as follows:

RESOLVED, that the Northern Division of the Cooper Ornithological Club reaffirms its conviction that the proposed Migratory Bird Refuge and Marshlands Conservation Act, H. R. 7479, Senate 2607, embodies a measure which is of vital importance in the preservation and development of our birds, for whose sustenance, propagation, and very existence, submerged refuges are indispensable; and

Further RESOLVED, that the administration of such refuges presents a biological and economic problem, into which mere sentiment does not enter; that it is a problem for trained specialists cognizant of the different and fluctuating conditions obtaining throughout the entire ranges of our migratory birds; and that, in the Bureau of Biological Survey, we already have a trained and competent agency for the unified control which alone can achieve the objects of this Act; and

Further RESOLVED, that the Northern Division of the Cooper Ornithological Club respectfully urge our Senators and Representatives to interest themselves in bringing said measure to a vote at the earliest possible time, during the present session; and

Further RESOLVED, that the Secretary be requested to transmit a copy of these resolutions to each Member of Congress from California.

The motion to adopt was unanimously carried.

The Chair then expressed the indebtedness of the Division to Dr. Nicholls for his most interesting talk and declared the meeting adjourned.—HILDA W. GRINNELL, *Secretary*.