

waters off Monterey find their position and shape their course by the land-marks; 2. That birds do not possess a mysterious superhuman faculty for determining direction, else the Shearwaters would not have been bewildered in the fog."

Taking up the subject of "Guidance by the Old Birds," Mr. Loomis concludes from his observations that in early southward movements of birds, those to lead the way are adults, and not young, as attested by previous writers. He claims that the birds-of-the-year which are commonly the first to be seen, are simply young, weak-winged travellers which have dropped out from the advance-guards. These latter consist mainly of adults, such as have failed to procreate, or where one of the parents has been left to care for the young, and the other has migrated early. Older birds also bring up in the rear of the migrations, so that the young are simply following their elders, who know the way because they have travelled it.

A discussion of the "Causes of Migration" ends with the summary: "It is held that bird migration is a habit evolved by education and inheritance which owe their origin and perpetuation to winter with its failure of food." One of the points which seems to be emphasized is that migration is *not* accomplished through any superhuman faculty or intuition which we do not have and consequently cannot comprehend; "the causes of migration are simple facts."

It is obvious after reading this paper that some of Mr. Loomis's conclusions are based on rather meager data from a limited locality. But they are apparently logical, though much further evidence is required for their satisfactory establishment.—J. G.

*Proc. Cal. Acad. Sci. Third Series. Zoology, Vol. II, No. 3. With one plate (a map). Issued Feb. 12, 1900. By Leverett M. Loomis.



Official Minutes of Southern Division.

JANUARY.

The Division met Jan. 31 at the residence of Mr. H. S. Swarth in Los Angeles with nine members present, Messrs. Morcon, Hahn, Newkirk, Rivers and Rowan were present as visitors. Mr. Grinnell proposed the names of Dr. Newkirk and Mr. Hahn of Pasadena and Mr. Rivers of Los Angeles for membership. A bill for \$4 for half-tones was ordered paid. Papers on the "Nesting of the Mexican Wild Turkey," by O. W. Howard, and "The Little Brown Crane" and "The Red and Northern Phalaropes" by Joseph Grinnell were read. Adjourned.

FEBRUARY.

The February meeting was held at the residence of Mr. W. B. Judson, Los Angeles, Feb. 28, Mr. Daggett presiding. Howard Rivers of

Los Angeles, B. F. Hahn and Dr. Garrett Newkirk of Pasadena were elected to membership. Mr. Grinnell proposed the name of Burnell Franklin for active membership. Three papers from the Northern Division were read, consisting of a report on the work of the *Bulletin* for 1899 by C. Barlow; "Notes on *Rallus obsoletus*" by Ernest Adams and "Story of the Life of *Chondestes grammacus strigatus*" by W. L. Atkinson. Adjourned.

HOWARD ROBERTSON, Division Secretary.

Official Minutes of Northern Division.

MARCH.

The Division met at the home of W. Otto Emerson at Haywards, March 3, President Emerson in the chair. The following members were elected to active membership: Chas. A. Nace of Santa Clara; E. H. Skinner of San Jose; Lloyd T. Stephenson, Vinton, and Chas. S. Thompson, Stanford University. The names of John J. Williams of Applegate, Placer Co., and E. A. Goldman of Delano were proposed for membership. Donald A. Cohen and Senator E. K. Taylor were appointed a committee to draft resolutions favoring the preservation of the Big Trees by the Division, and to forward same to Washington. Mr. Grinnell of the Southern Division was present and outlined the work accomplished by him in the Kotzebue Sound region last year, and which will be published as a memoir by the Club during 1900. Two papers were read: "Bird Friends Condemned Without a Trial" by John J. Williams, and "A Night on Land" by A. W. Anthony. Adjourned to meet at Palo Alto May 5.

Publications Received.

Keeler, Chas. A. Bird Notes Afield. pp. 353. (See review.)

Shufeldt, Dr. R. W. Notes on the Mountain Partridge (*Oreortyx pictus*) in Captivity. Extract from Ornitholog. Bulletin du Comite Ornithologique International. Paris, Nov.-Dec., 1899; p. 75-76. One plate.

The paper is based upon some twenty living birds of this species secured from California and kept in confinement at Washington, D. C., but deals more particularly with a single male bird which Dr. Shufeldt kept at his home for the purpose of study. A majority of the birds did not thrive, owing to adverse conditions, and showed little of the activity of wild life, but under proper conditions Dr. Shufeldt considers they would do well. The paper observes that "the two feathers constituting the plume are kept in contact for their entire lengths at all times and in all positions, giving the appearance of their being but one of them." A page photographic plate taken from life by Dr. Shufeldt, ornaments the paper and serves excellently to show the crest, plume and other characteristics of this magnificent quail.