appear that here is an excellent opportunity of gathering in a brazen violator of the law, who does not respect the common property and rights of others.

The Western Ornithologist, dated Vol. V, No. 1, January-February 1900, has made its appearance and announces itself as a continuation of the Iowa Ornithologist, formerly edited by David L. Savage, who now becomes associate editor, while Chas. C. Tryon assumes editorial control, the publication being issued from Avoca, Iowa. The initial number is a very creditable one in every way, consisting of 24 pages of text, printed on coated paper with an appropriate cover, and very similar in makeup to the current ornithological magazines. The leading article is on "The Plumage of the Bluejay," by Morton E. Peck. Five other interesting articles of length, several illustrations and short notes complete the issue. The publication makes a promising start, and will, we trust, prove a permanent organ for workers in the Middle States.

Book Reviews.

BIRD NOTES AFIELD. By Chas. A. Keeler, pp. 1-233, with appendix and key 237-353, Elder & Shepard, San Francisco. \$1.50 net.

In the present work Mr. Keeler has given the public a series of entertaining essays on the characteristic birds of California, and has done it so cleverly that even those who are wont to judge bird literature by its scientific aspect alone must follow Mr. Keeler's sketches afield with keen pleasure. The author states in the preface that the work has not been written for scientists, but the descriptive talks bear evidence of the author's intimate knowledge of technical ornithology, for the work is commendable in being at once a popular treatise, yet everywhere marked with accuracy of descriptions.

Bird Notes Afield consists of thirteen essays, under titles such as "A First Glance at the Birds," "Patrolling the Beach," "A Trip to the Farallones," "March in the Pine Woods," "Nesting Time," etc., each chapter covering concisely the birds which a beginner would most likely meet in the surroundings described in the chapter. Each essay is descriptive of experiences and impressions which every ornithologist has enjoyed in counterpart afield, and the work therefore becomes one which we can appreciate. The author states in his mention of the nest-building of Anna's Hummingbird (p. 200) that "both parents labor upon the home." This statement will be questioned by many observers who have failed to detect the male bird assisting in the construction of the

An artificial key to the land birds of California occupies the remaining 116 pages and is most creditable in its arrangement, and by its use the beginner should be able to identify

many of our common birds at least. In the key the distribution of species has wisely been fixed chiefly from Belding's Land Birds of the Pacific District. The volume with its key, completes one of the ablest initiatory works on California birds that has been given the public, and those who are seeking a work of this scope will not be slow in according Mr. Keeler's book the recognition it easily merits.

C. B.

LOOMIS.—CALIFORNIA WATER BIRDS, No. IV.* This is a continuation of Mr. Loomis's observations on the water birds off the coast of Monterey County. Twenty-five pages are taken up with a detailed "Calendar" or diary of daily observations made from Sept. 18 to Nov. 14, 1896. Special notes were made on any phenomena which might bear on the subject of migration. Six pages at the close of the paper are devoted to a briefly annotated list of the species detected. Binomials, alone, are used in this list, the third or subspecific names of the races being omitted. A notable addition to the list of North American Birds is here for the first time recorded; viz., Buller's Shearwater ($Puffinus\,bulleri$); a \cite{Q} "perhaps a young one," was taken by Mr. Loomis six miles west of Point Pinos, Nov. 6, 1896. It is the fourth specimen known to science, the other three having been obtained in "New Zealand seas."

Under the head of "Conclusions" comes thirteen pages constituting the important part of the paper, which is, in fact, an essay on migration. Mr. Loomis here sets forth his views on the method and causes of migration, and the evidence or data on which these are based. The subjects are simply and clearly presented, vet condensed so as to be entirely devoid of superfluity. Abundant references in the footnotes attest Mr. Loomis's familiarity with literature pertaining to the questions in hand, and the whole matter is evidently the results of long and careful study. The present reviewer is not sufficiently well informed on the subject to be able to intelligently discuss this article, and he can do little but touch on one or two points which happen to appeal to him.

Under the heading "Guidance by Physical Phenomena," observations are cited of migrating Shearwaters becoming apparently bewildered when the land was hidden by a fog, and of their immediately resuming their way when the fog was dispelled sufficiently to reveal the land-marks. Local species which were familiar with the neighborhood did not evince this bewilderment, but seemed to keep their bearings. "Perhaps those moving at considerable elevation are guided by the mountain tops which rise above the low vapors." In the case of migrants over the sea "currents and winds may possibly be the directing phenomena." "These directions seem to prove: 1. That the Shear-

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 for."

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. 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

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 Ornis Bulletin du Comite Ornithologique International. Paris, Nov.-Dec., 1899; p. 71-76. 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 excellently to show the crest, plume and other characteristics of this magnificent quail.