gans); the Rock Grass Parrakeet (Neophema petrophila); the Blue-winged Grass Parrakeet (Neophema venusta); the Turquoisine Parrakeet (Neophema pulchella) and the Splendid Grass Parrakeet (Neophema splendida).

The first four Neophemae are easily confused by anyone not familiar with the genus, and to avoid the production of crossbred birds of no scientific interest the following distinctions should be borne in mind. The Orange-bellied is the greenest of the four; it has, as its name implies, a patch of orange on the belly, but this feature is frequently met with in brightly colored adult males of elegans, venusta and petrophila, so it is of no value for purposes of distinction. The most noteworthy point of difference is in the frontal band, which is of a not particularly intense blue and is wide and rather indefinite in shape, recalling a female Turquoisine. The Elegant Grass Parrakeet has a narrow frontal band of intense blue; the wing shows a narrow strip of blue of two distinct shades, pale turquoise at the edge, dark farther in. This bird is commonly confused with the Blue-winged Grass Parrakeet, and many of the latter are sold as Elegants.

The Rock Grass Parrakeet is the most soberly colored of the genus. The prevailing color is a brownish olive green, and the blue areas on forehead and wing are smaller and less vivid than in the case of N. elegans.

The Blue-winged Grass Parrakeet is the only member of the genus that occurs in Tasmania (Gould appears to be in error in supposing that the Orange-bellied is found there) and it is the one which is most often caught and offered by bird dealers. It may readily be distinguished from the true Elegant by the fact that the blue wing patch is nearly twice the width and is all of the same dark shade.

In conclusion may I suggest that the preservation of a rare and beautiful bird is a matter of importance to all true ornithologists whose interest in bird life goes deeper than the mere study of museum skins. Many persons who live in the colder parts of the States, or who have no facilities for keeping live birds, might surely be willing to offer financial help. Unless they receive outside aid, Californian aviculturalists may not be able to do all that is needed to save the threatened species from final extinction.

Yours truly,

TAVISTOCK,

Warblington House, Havant, Hants, May 5, 1926.

PUBLICATIONS REVIEWED

THE LONE SWALLOWS, By HENRY WILLIAMSON. E. P. Dutton & Co., 681 Fifth Ave., New York, N. Y., 1926, 227 pp.

About a year ago Mr. Williamson published "Sun Brothers", a book exploiting all the romantic interest in nature, remaining at the same time intensely realistic. The present volume, "The Lone Swallows", is much in the same style and deals largely with the same dramatis personae, namely the falcons, the swallows, the wild flowers, and the people of southern England. The intermeshing of the threads of human, of animal, and of plant, destinies, is a favorite theme of the author, upon which he has made in the present instance a very readable book which should help in the struggle that seemingly must never cease if we are to preserve anything of natural beauty.

The ardency of a nature worshipper is evident throughout these chapters, and kindred spirits will thrill to many a telling phrase or convincing word picture in the book. In a few of the chapters the language is so loaded with metaphors that spontaneity is lost; but in general both writing and construction are good. Unusual words are fewer than in "Sun Brothers," and part of those employed are explained in the footnotes-an improvement. All in all, we like "The Lone Swallows" and wish its author continued power to write beautifully of Nature.-W. L. McAtee, Washington, D. C., April 28, 1926.

Two Books for Serious Bird Students. There come from England (H. F. & G. Witherby, London) two books, of scope and merit that lead us to recommend them to every serious student of bird life. One is Heilmann's "The Origin of Birds"; the other is A. Landsborough Thomson's "Problems of Bird-Migration". These two books possess certain qualities in common: each is the result of thorough-going, scholarly research; each gives a digest of the basic facts; each gives bibliographies of all the authoritative literature in the field of its subject matter; and each gives the final, down-to-date conclusions, theoretical and factual, in regard to the problems dealt with.

Gerhard Heilmann, a Dane, besides being a paleontologist of attainment, is an artist. In his book he depicts, in restoration, the remotest ancestors of the birds of today. We see *Archaeornis* and *Hesperornis* clothed with feathers, each amid its natural surroundings; we are given

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 Whiterumped 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-