

damental layer in both cases is colored with oöcyanin. This gives some idea of the thorough study of the shell structure and coloration that Mr. Lechner has conducted, a line of investigation which has been utterly neglected by American 'oölogists' but one well worthy of pursuit if they would substantiate the claim that their large series of egg shells are collected for the benefit of 'science.' One can readily appreciate how such investigations may yield data of much phylogenetic value. We congratulate Mr. Lechner upon the character of his work and upon its progress towards completion, while the publisher deserves the highest credit for a beautiful piece of book-making.— W. S.

Phillips on African birds.— Drs. J. C. Phillips and G. M. Allen spent two months beginning December 25, 1912, on the Blue-Nile and Dinder River, in Sennar, Sudan, and obtained a collection of 340 birds, representing 150 species. A briefly annotated list of these is published by Dr. Phillips in the Bulletin of the Museum of Comparative Zoölogy,¹ with a short account of the trip. Descriptions of two new forms, *Caprimulgus eleanoræ* and *Passer domesticus chephreni* were described previously,² while in the present number of 'The Auk' appears an article on the author's impressions of the bird life of the Sudan and a color plate of the new Nightjar.

Dr. Phillips found the mid-winter bird-life, especially at the mountain at Fazogli, far less rich and varied than has been reported by summer visitors and evidently, as he points out, there must be considerable local seasonal movements among the resident species.— W. S.

Bunker on the Birds of Kansas.— During the years 1911 and 1912, Messrs. C. D. Bunker and T. A. Rockland made extensive explorations along the south, west and north borders of Kansas, collecting about 1700 skins in forty-one different counties. Meanwhile, Miss Arta Briggs has carefully reidentified the collection of birds in the University of Kansas Museum and brought the nomenclature up to date. Eight forms new to the state list were obtained on the field trips, while Miss Briggs has detected twenty-seven species and subspecies not contained in Prof. Snow's last edition of this 'List of the Birds of Kansas,' published in 1903. These have been incorporated in the new list of Kansas birds³ which Mr. Bunker, assisted by Miss Briggs and Mr. Dix Teachenor, here presents and which has been brought up to date in matters of nomenclature though primarily

¹ Notes on a Collection of Birds from the Sudan. By John C. Phillips. Bull. Mus. Comp. Zool. Vol. LVIII, No. 1, pp.1-27. December, 1913.

² Two New African Birds. By John C. Phillips. Proc. Biol. Soc. Wash. Vol. XXVI, pp. 167-168. June 30, 1913.

³ The Birds of Kansas. By C. D. Bunker, of the University of Kansas Museum. Kansas Univ. Sciences, Bull. VII, No. 5, June, 1913, pp. 137-158. An inserted slip states that "equal credit should be given to Miss Arta Briggs and Dix Teachenor for this publication."

based upon the fifth edition of Dr. Snow's list. The total number of species and subspecies is 379 as against 348 given by Dr. Snow. The Oregon Junco, Loggerhead Shrike and Long-billed Marsh Wren recorded by him are omitted as no evidence of their occurrence could be found.

It is unfortunate that the species added to Dr. Snow's catalogue are not listed separately as it is difficult or impossible to pick them out of the main list. The paper makes a convenient summary of our present knowledge of the Kansas avifauna and will be of much assistance to local students of Kansas birds.— W. S.

Swarth on Geese of the *Branta canadensis* Group.¹— Mr. Swarth bases his study upon a series of 153 skins mainly from California and his conclusions go far to straighten out the confusion that has prevailed regarding the relationships of the four races of Canada Geese.

He finds that the breeding bird of California is true *canadensis* while *occidentalis* is entirely restricted to the humid northwest coast region where it is nearly resident, never migrating as far south as California. These are both large birds with the throat usually entirely white and the collar on the lower neck usually absent, the former form being light gray below, the latter dark brown.

Branta c. minima is the smallest form, with a bill notably smaller than in either of the above but presenting the greatest variation in coloration.

B. c. hutchinsi forms a perfect series of intergrades between *canadensis* and *minima*, and like the latter is very variable in color characters. The smaller races breed in the far north, *minima* on the Alaskan coast of Bering Sea and the Aleutian Islands; *hutchinsi* farther east. The numerous intergrades indicate that their breeding areas merge one into the other but the alleged breeding of *hutchinsi* in Alaska would seem to need careful confirmation. Mr. Swarth has produced a careful and valuable piece of work.— W. S.

Job on the Quest of the Canvasback.²— Mr. Job with three companions spent three months of the past year on Lake Winnepegosis, northern Manitoba, studying the breeding ducks and other water fowl. His main object was to secure young of the various species, especially Canvasbacks, for breeding experiments which he is carrying on in Connecticut. He succeeded, with the aid of incubators and brooders, in hatching and raising about 200 young ducks of ten species, as well as some Coots, while a few young were caught alive in the marshes. Mr. Job tells the story of his summer's experience in a most delightful way and illustrates his article

¹ A Study of a Collection of Geese of the *Branta canadensis* group from the San Joaquin Valley, California. By Harry S. Swarth. Univ. of Cal. Publ. in Zool., Vol. 12, No. 1, pp. 1-24, pls. 1-2. Nov. 20, 1913.

² In Quest of the Canvasback. By Herbert K. Job. Outing, February, 1914, pp. 515-525.