Laing's 'Out with the Birds.'1 — Mr. Laing seems not only to know his birds but to know how to tell us about them, and as we turn the pages of his book we share with him the enthusiasm of the nature lover and the excitement of the bird photographer. The unique feature of 'Out with the Birds' is that it treats of a region not generally touched upon by nature writers — Manitoba, and naturally the birds that occupy the attention of the bird student are not those which usually figure in our outdoor bird books. When spring awakens, it is not to the accompaniment of Bluebird warble, but the honking of Geese on the prairie and the "tinkling, fairy melody" of the Lapland Longspur chorus on the eve of departure for farther north. The morning awakening begins with the booming of the Sharp-tailed Grouse, the lisping song of the Prairie Horned Lark, high in the air, and the clamor of the ducks in the marshes.

The mating antics of the Grouse are fully described and we learn of the habits of various ducks, happily free from the usual accompaniment of shotgun and hunters' anecdotes. We learn too of the life of the Whiterumped Shrike, Franklin's Gull, Black Tern and Snow Goose. Mr. Laing's syllabic representations of the songs of certain familiar species are original and quite as effective as the more familiar ones. For example the Towhee's song as he hears it is "Sweet, bird sin-n-n-ng" and the White-throated Sparrow far away from the New England home of "Old Sam Peabody" says "Oh, dear Canada! Canada!"

The illustrations, while they do not average up to the best that our bird photographers of today produce are attractive and add much to the interest of the book. One serious defect is the lack of an index which makes it difficult for the bird student to pick out from the text the information on any given species.— W. S.

Cooke on Bird Migration.²— This little pamphlet is, so far as its object and scope are concerned, a new edition of a similar one published some twelve years ³ ago, but it is much fuller and replete with additional information. It covers the subject quite fully under the headings Causes of Migration, Relation of Migration to Weather, Day and Night Migrants, Distance of Migration, Routes of Migration, Direct and Circuitous Migration Routes, Eccentric Migration Routes, Wide and Narrow Migration Routes, Slow and Rapid Migration, How Birds find their Way, Migration and Molting Casualties during Migration, Are Birds exhausted by Long Flight? Evolution of Migration Routes, Normal and Abnormal Migration, Relative

¹ Out With the Birds. By Hamilton M. Laing. Illustrated with Photographs. New York. Outing Publishing Company, MCMXIII. 8vo. pp. 1–249. \$1.50, postage 12 cts. extra.

² Bird Migration. By Wells W. Cooke. U. S. Dept. of Agriculture. Bulletin No. 185. April 17, 1915. pp. 1-47.

³ Some New Facts about the Migration of Birds. Yearbook U. S. Dept. Agr. for 1903.

Position during Migration, Relation between Migration and Temperature. Variations in Speed of Migration, The Unknown. The pamphlet is clearly written and places the subject before the public in such a way as to make fascinating reading while it will undoubtedly interest a large number of people in the study and recording of bird migration and so ultimately serve to increase the data bearing on the subject. To the scientific man this up to date treatment of one of the most interesting phenomena of bird life will also prove of great interest, but he will look in vain for any reference to other papers on the subject by the author or anyone else, where he can follow up the matter and compare the various opinions and theories that have been advanced. Such references may not be required in Farmer's Bulletins or similar publications of the Department of Agriculture, but in one of this sort, which appeals to scientists as well as laymen, it seems that the universal custom in scientific publications should have been adhered to and the value of the pamphlet thereby measurably increased.

While not for a moment questioning the accuracy of Prof. Cooke's results in his studies of bird migration it seems pertinent in this connection to call attention to an unfortunate tendency in most publications on this subject in America, *i. e.* that of publishing ultimate results or theories without presenting the detailed data upon which they are based. It may be claimed that European publications on the subject represent a maximum of detailed data and a minimum of conclusions, and this may be true, but even so it is decidedly more in accord with the methods employed in other lines of scientific work.

In describing a new species or working out the geographic range of a group of subspecies, pages are often devoted to the citation of detailed data, where the results of the study is summed up in a few words. The same method could be employed with advantage in works on bird migration, but too often we do not even know upon whose observations results are based, or how many records or observers contributed to them. Furthermore migration tables or comparisons are not definite facts but are averages and computations often involving the rejection of some of the material, and the personal equation enters into this work to such an extent that it seems absolutely essential that the most important details involved in obtaining results should be presented. For instance, to take an example from Prof. Cooke's paper, the isochronal migration line of April 20 for the Black and White Warbler passes through Philadelphia, yet in 'Cassinia,' 1912, p. 9, Prof. Cooke gives April 17 as the average time of first arrival for Philadelphia while in 'Bird Lore,' 1905, p. 203, April 27 is given (Germantown = Philadelphia). So also in 'Bird Lore,' 1905, p. 205, we find May 14 given as the average date of arrival of the Black-poll Warbler for Englewood, N. J., but the isochronal line for May 15 runs far north of this locality. Evidently these lines are not based upon all the data at hand, some have been accepted and others rejected, on good grounds no doubt, but the student who would judge of this matter is blocked at once by the absence of data or explanation. When we realize that nearly all computations as to the speed and direction of migration depend upon the accuracy of these isochronal lines it is obvious that other students of bird migration will naturally demand the same presentation of detailed data that is customary in other fields of scientific

research.---W. S.

Faxon on 'Relics of Peale's Museum.'¹—Dr. Faxon has done a commendable piece of work in publishing an annotated catalogue of the types of Wilson, Bonaparte and Ord formerly in the Philadelphia (= Peale's) Museum and now in the Museum of Comparative Zoölogy at Cambridge. The history of the collection which precedes the catalogue is very interesting reading, and when we consider the vicissitudes through which it passed we are inclined to marvel that any of the specimens were fortunate enough to survive!

We entirely agree with Dr. Faxon that the known history of the specimens and the careful comparisons that he has made with figures and descriptions clearly establish them as the types, even though the original labels were lost.

Fifty-three of these ancient types are now safely preserved and catalogued in the Museum of Comparative Zoölogy and together with the type of the Cape May Warbler in Vassar College, and those of the Mississippi Kite and Broad-winged Hawk in the Philadelphia Academy, they probably comprise all that are extant of the originals upon which the descriptions of Wilson, Ord and Bonaparte in the 'American Ornithology' and its continuation were based.— W. S.

Mathews' 'Birds of Australia'.² — Mr. Mathews' great work continues to appear regularly and maintains its high standard of excellence. The publishers announce that with the completion of Vol. IV, the subscription list will be absolutely closed. No more than 260 copies will be issued and "should not all of these be taken up the surplus will be destroyed."

The two parts now before us complete the Anseriformes and Pelecaniformes. The discussion of nomenclature is very full and the classification and generic subdivisions of the latter group are gone into in great detail. Many pages are devoted to replies to criticisms as to the treatment of certain groups and recognition of certain subspecies and genera, while the 'British Museum Catalogue,' 'B. O. U. List' and 'A. O. U. Check-List' as well as several individual authors come in for some sharp criticism. In all cases of nomenclatural discussion however, Mr. Mathews seems very fair, abiding rigidly by the International Code, without any quibbling over individual cases.

¹ Relics of Peale's Museum. By Walter Faxon. Bull. Mus. Comp. Zoöl. LIX, No. 3. pp. 119–148. July, 1915.

² The Birds of Australia. Vol. IV, Part 2, February 17, 1915. Part 3, June 23, 1915.