

admirable pattern to go by in outlining and carrying out life-history investigations.

We are glad to announce that Mr. Frank Stephens has rejoined the staff of the San Diego Natural History Museum, under the title Curator Emeritus of Vertebrates. Mr. Stephens was formerly director of that museum, but had subsequently turned his attention to the development of his ranch in eastern San Diego County. He will now be in a position to devote all his energies to building up the research collections in the institution with whose early history he had so much to do. Associated with Mr. Stephens is Mr. Laurence M. Huey as Curator of Vertebrates, Mr. Huey having received his training in this field under Mr. Donald R. Dickey of Pasadena.

In view of an evident tendency in our own State toward making the securing of collecting permits by beginning bird students more and more difficult, we feel it an appropriate time to quote the following authoritative statements in this regard, made by Dr. A. K. Fisher of the U. S. Biological Survey (in Bull. Amer. Game Protective Assoc., vol. 12, July, 1923, p. 9).

"In all branches of science, investigation and handling of material are essential to the development of our knowledge, and the more available the material, the more rapid the progress. Ornithology has advanced rapidly in the past for the reason that no lack of material has hampered its studies. Upon the data secured by students of this subject, all sane programs for game-bird conservation and all plans of game commissions have been founded. The more fully that definite knowledge gained by the work of ornithologists enters into the consideration of state game affairs, and the more interest that is shown in the subject by the commissioners, the more service will ornithologists render to the public and to game conservation."

"A few game commissioners who have had little or no scientific training have taken the position that a sufficient number of birds has been collected and no more specimens are necessary. If this principle were rigidly enforced, ornithology would soon be a science of the past, and game commissions would degenerate to mere political offices. Ornithology, like all other sciences, advances, and new facts are revealed, as the stu-

dent proceeds further and further with his subject. Conditions affecting the bird population are constantly changing, and these should be the subject of thorough, up-to-date investigations. If collecting birds had been stopped thirty years ago, there would have been no American Game Protective Association, no treaty for protecting birds migrating between the United States and Canada, and few waterfowl for the food and recreation of the sportsman."

"It is understood that much of the prejudice shown by commissioners toward ornithologists may have been inspired through the activities of maudlin sentimentalists or of those who have become satiated after years of sickening excesses. It has been stated that a reformed game butcher makes the most insistent advocate of the abolition of all shooting. It is believed that very much good would result to everyone concerned if the antagonism shown by game commissioners were changed to intelligent co-operation.

"The various game commissions continually need the assistance of ornithologists, and it is to be hoped that the prejudice that now seems so evident may pass away. Instead of discouraging the young ornithologist, the game commissions would do well to make it possible for him to secure material and to look upon him as an assistant and not as one whose chief object is the destruction of bird life."

The reproduction of the large number of photographs accompanying Mr. Dixon's article on the Wood Duck, in this issue, has been made possible through contributions toward the cost of engraving by three Cooper Club members whose names are, in deference to their personal preferences, withheld.

PUBLICATIONS REVIEWED

THE SECOND INSTALLMENT OF PHILLIPS' DUCK BOOK.*—Upon opening this volume, the very first feature of it that struck me was that the author puts every one of the 49 included species of ducks under the one genus name *Anas*. *Mareca*,

* A Natural History of | the Ducks | by | John C. Phillips | Associate Curator of Birds in the Museum | of Comparative Zoology at Harvard College | with plates in color and in black and white | from drawings by | Frank W. Benson, Allan Brooks | Louis Agassiz Fuertes | and | Henrik Grönvold | Volume II. | The Genus *Anas* | [vignette] | Boston and New York | Houghton Mifflin Company | The Riverside Press, Cambridge | 1923 [November] | 4to, pp. xii+409, 26 pls., 38 maps.

Querquedula, *Dafila* and *Nettion* are all quashed in favor of the older, inclusive, name *Anas*. This logical ruling, made in the most important ornithological work of the year, will, I sincerely hope, "impress" the A. O. U. Committee on Nomenclature with the real trend of scholarly feeling against generic splitting. Popular feeling in the same direction has already registered abundantly.

The next feature of Volume II, in comparison with Volume I (for general appraisal, see review in CONDOR, XXV, 1923, page 74), is the plethora of illustrations. There are 26 plates, mostly in color, besides 38 maps. While the color plates in Volume I were nearly all from the work of Fuertes, nearly all the plates in Volume II are from the brush of Allan Brooks; and, to date, these comprise the most worthy single offering from the last-named illustrator. The "wash" drawings, showing the nuptial behavior of several species of ducks, demonstrate Brooks' ability to observe happenings in nature with discernment of innumerable details.

From the standpoint of nomenclature, again, we note that the name of the Mallard goes back to *Anas boschas*; this is certainly far easier to write than *platyrhynchos*! The "Southern" Blue-winged Teal (*Querquedula discors albinnucha*) falls as a synonym of *Anas discors*. But the lately described New Mexican Duck is recognized, under the name *Anas diazi novimexicana*. Incidentally (page 58), a specimen of this duck is recorded from Grafton [Yolo County], California, constituting an addition to the state list of California birds.

Referring to California further: the specimen of *Anas rubripes* recorded some years ago from Willows, Glenn County, it is suggested (page 72), may have been an escape from captivity. This possibility, even probability, of which I informed Dr. Phillips, presented itself when I learned that Black Ducks had been reared regularly on certain gun club grounds in west-central California. Another species, formerly ascribed to California, but which will now need to be put on our hypothetical list, is *Anas crecca*. I agree with Dr. Phillips (p. 217) that the two old California records "require further proof"—and this is not likely to be forthcoming.

As in the case of the first volume of "the duck book," the reader finds on almost every page comments of general interest—expressions of the author's matured views in various matters. For ex-

ample: "The word *courtship* has an anthropomorphic sound, and seems to imply a conscious and previously planned series of events, but it should not be considered in this sense when applied to behavior in animals. It would perhaps be better to invent an entirely new word to cover the long series of events which result from the 'mating hunger' of animals in general" (p. 30).

With this installment of Phillips' book, the undertaking is half done; that is, as regards publication, and this must mean that a good deal more than half of the vast work of assembling and assorting the basic data for the whole thing is done,—which inference is surely gratifying all around, to author and to expectant reader, alike.—J. GRINNELL, *Museum of Vertebrate Zoology, University of California, December 16, 1923.*

WALKER ON SOARING FLIGHT.*—This paper is of considerable interest to students of flight, as it is written primarily as a criticism of the unusual views advanced by E. H. Hankin in his volume entitled "Animal Flight" (London, Iliffe), and in various articles published elsewhere. Hankin's not very hopeful conclusion, from a great mass of data on the soaring flight of Indian kites and vultures, is that the phenomenon is shrouded in complete mystery. Walker, whose observations cover the same territory and are for that reason the more valuable, finds in air currents a sufficient explanation of this type of flight.

In the early morning, in the vicinity of Agra, atmospheric conditions as affected by temperature are extremely stable up to a height of 1 kilometer, and moderately stable between 1 and 2 kilometers. In the afternoon, however, there may be a difference of 22° C. between the temperature of the ground surface and that of the atmosphere 1.2 meters above, and the temperature may drop further 17° up to an altitude of 1 km. This causes conditions of great instability, creating currents which are sufficiently powerful in April and May "to reverse the direction of the ground winds over the whole region represented by Bareilly, Lucknow and Benares."

Over rocky or sandy soil, aviators report an "upward bump" to a height of several thousand feet, and a "downward bump" on passing over green vegetation

* Meteorology and the non-flapping flight of tropical birds, by Gilbert T. Walker. Proceedings of the Cambridge Philosophical Society, vol. 21, pp. 363-375: