

paper on the "Damping of the Oscillations of Swinging Bodies by the Resistance of the Air" which I published last year, must have been somewhat affected by a minute spark which escaped my notice, but which lasted for perhaps the thousandth part of a second and thus effectually prevented the break in the circuit of the deflecting current from being abrupt? The very interesting discontinuities in the motion of bodies swinging under certain laws of damping are not very appreciable in the air at the small velocities described in the paper mentioned.

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## SCIENTIFIC BOOKS

*Birds of New York.* By ELON HOWARD EATON. Memoir 12, New York State Museum, John M. Clarke, Director. Part I. Introductory Chapters; Water Birds and Game Birds. Albany, University of the State of New York. 1910. 4to, pp. 501 (+160 pp. of unpaginated tabular matter between pp. 86 and 87), 42 colored plates, and many half-tone illustrations in the text.

Of the many manuals and reports on birds issued under the authority of the various state governments none approaches in voluminous detail and fullness of illustration the present work (which will form two thick volumes in quarto) on the "Birds of New York," of which Part I., comprising the introductory matter and the water birds and game birds, has recently appeared. The author, Elon Howard Eaton, has shown himself well fitted for the task, both the introductory matter and the systematic part giving evidence of thorough research and good judgment. The present work is therefore a worthy successor to the illustrated quarto volume on birds by Dr. J. E. DeKay, published in 1844 as Part II. of the "Natural History of New York"—a work of great usefulness for many years, beyond as well as within the boundaries of the state.

The first part of the present work opens with a "Summary of the New York State Avifauna," in which the 411 species that have been recorded as occurring in the state are

classified in six categories, in accordance with their manner of occurrence, as residents, summer residents, transients, winter visitants, summer visitants and accidental visitants. This is followed by a consideration of the life zones of the state, namely, the Canadian, Alleghanian and Carolinian, illustrated by a map shaded to indicate relative elevation, with cross-hatching in red and blue to demark the life zones; but unfortunately many of the place names are practically illegible, even with the aid of a hand-glass. Other smaller maps of similar character illustrate the breeding ranges of twenty-two species, while several pages of charts graphically indicate the breeding ranges of all the species that breed in the state with reference to their representation in the different life zones. Consideration of the Mount Marcy region, of the increase and decrease of species and the cause, a few pages of appropriate "suggestions to bird students," and such other topics as "bird migration," "spring arrivals," "county schedules" and "classification," make up the rest of the 90 pages of introduction. Under "spring arrivals" the dates of arrival of 90 species at 30 localities are given for a series of years in three tabular inserts, and two maps show the dates of spring arrival of the Baltimore oriole and barn swallow for the year 1905 at different points throughout the state. Under "county schedules" an attempt is made "to show in condensed form the status of our knowledge concerning the birds of each county in New York State." This laborious compilation is tabulated in 75 inserts placed between pages 86 and 87.

The systematic part (pp. 91-390) follows the classification and nomenclature of the American Ornithologists' Union Check-List of North American Birds, and includes the species from the grebes to the end of the pigeons. Diagnoses are given of the family and higher groups, with some additional comment, as well as of the species. The matter relating to the latter is classified under the subheadings "description," "field marks," "distribution," "migration," "haunts and habits," "food," "nests and eggs," etc., and varies in

amount with different species, including in many instances very full biographies. The references are restricted to the citation of the place of original description of the species, of DeKay's work, and the second edition of the A. O. U. Check-List. As the later supplements to the Check-List are not cited, in cases where the nomenclature of the second edition has since been changed, the names adopted would seem to be not those of the Check-List but of the author's own selection. After the names a glossary is added, giving the derivation and accent of the technical names, a feature too rarely found in works of this character. The eccentric use, or non-use, of capital initials in the English bird names and in many geographical names is doubtless not the preference of the author.

A notable feature of the work is the illustrations, which comprise 42 colored plates, illustrating 132 species, from drawings by Louis Agassiz Fuertes, and a large number of half-tones in the text. Fuertes is here seen at his best. The grouping in some of the plates is excellent; in others too many figures are crowded upon a single plate, an exigency for which he is doubtless not to be held responsible. Again, the backgrounds in some cases detract from the general artistic effect, and might often have been omitted as a needless and inharmonious element of the picture. The color printing obviously does injustice to the drawings, the dull reds presenting a monotonous sameness not warranted by the tints given the birds by nature. Yet with these drawbacks the plates are effective aids in recognizing the species depicted. The poses and attitudes are in most cases admirable and the structural details scientifically correct. For the artist is not only an exceptionally gifted draughtsman, but an ornithologist as well, and a trained and keen observer.

The text illustrations are numerous and appropriate, varying from details of structure to full-length figures, some of them from nature, as in the case of young birds, nests and haunts, and others from some of Audubon's plates or from mounted birds, usually New York state specimens of rare species, as in the

case of the scaled petrel, white swan, man-of-war-bird, white-faced glossy ibis and others.

The work is well-printed, from large, clear type, with few typographical errors<sup>1</sup> (on p. 22 and in the index for Linnett read Sennett!), but is ponderous to handle, the half-tones in the text necessitating the use of heavily coated paper, thus insuring rapid deterioration for a book worthy of long life. From the point of view of good book-making the work is sadly defective, there being, for example, no list of the plates or of the text illustrations, and no clue to what species or how many are figured without looking through the text and the plates. The eighty-odd sheets of inserts are bound in so deep that the middle columns are difficult to get at to read, and are neither paged nor consecutively numbered, but are arranged in "sections" numbered 1 to 4 with 15 to 20 "parts" in each, with the legend half concealed by the method of binding. The regular pagination of the text runs to page 390, with then a gap to page 474, on which the index begins, the gap being filled by the plates, each with an explanatory, unpaginated leaf, evidently counted as two pages.

From the letter of Director John M. Clarke to Commissioner Andrew S. Draper (see p. 3), the purpose of the present work is "to bring together the increments to knowledge [of New York birds] during the long period which has elapsed [since 1844] without active interest therein on the part of the State." To say that it faithfully fulfills this purpose is but just credit to both author and artist.

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*Minéralogie de la France et de ses Colonies.*  
Tome Troisième, 2e partie. A. LACROIX.  
Librairie Polytechnique, Ch. Béranger, Editeur, Rue des Saints-Pères, 15, Paris. 1909.  
No less welcome than the appearance of the

<sup>1</sup> There is a curious slip on p. 76, in citing a paper by George N. Lawrence, published in 1866, under a wrong title and ascribing its publication to a society that did not come into existence till 1878!