

Burroughs's 'John James Audubon.'¹ — Of the twenty-five 'Beacon Biographies' thus far issued, only two relate to naturalists — Louis Agassiz and John James Audubon.

The first was very happily treated by Alice Bache Gould,² and a more fitting author for the second could hardly have been found than John Burroughs, himself an ornithologist and a poet-naturalist, able to weigh Audubon's work, and to sympathize with his tastes and ambitions. In the brief preface the author very fairly compares Audubon and Wilson, their temperaments, opportunities, methods of work and their achievements. Then follows a 'chronology' of the important events in Audubon's life, and a just and very readable résumé of his history, character, and works, based of course on previously published sources of information. He recounts the meeting of Audubon and Wilson at Louisville, Kentucky, in March, 1810, as told by Audubon himself, and also as briefly noted by Wilson. There are appropriate and very interesting extracts from Audubon's journals and other writings, but mainly the biography is an admirably condensed account of Audubon's life and character. In comparing Audubon with Wilson he says (preface, p. x): "Both men went directly to nature and underwent incredible hardships in exploring the woods and marshes in quest of their material. Audubon's rambles were much wider, and extended over a much longer period of time. Wilson, too, contemplated a work upon our quadrupeds, but did not live to begin it. Audubon was blessed with good health, length of years, a devoted and self-sacrificing wife, and a buoyant, sanguine, and elastic disposition. He had the heavenly gift of enthusiasm — a passionate love for the work he set out to do. He was a natural hunter, roamer, woodsman; as unworldly as a child, and as simple and transparent. We have had better trained and more scientific ornithologists since his day, but none with his abandon and poetic fervor in the study of our birds." Again (p. 33): "Wilson was of a nature far less open and generous than was Audubon. It is evident that he looked upon the latter as his rival, and was jealous of his superior talents; for superior they were in many ways. His drawings have far more spirit and artistic excellence, and his text shows far more enthusiasm and hearty affiliation with Nature. In accuracy of observation, Wilson is fully his equal, if not his superior."

Mr. Burroughs does not hesitate to openly question the accuracy of some of Audubon's tales of adventure during his early wanderings, some of which "sound a good deal like an episode in a dime novel, and may well be taken with a grain of allowance." Of his bird paintings, he says: "His bird pictures reflect his own temperament, not to say his nationality;

¹ John James Audubon. By John Burroughs. The Beacon Biographies of Eminent Americans. Edited by M. A. DeWolfe Howe. Boston: Small, Maynard and Company, 1902. 12mo, pp. xxii + 144.

² See Auk, Vol. XVIII, 1901, p. 285.

the birds are very demonstrative, even theatrical and melodramatic at times. In some cases this is all right, in others it is all wrong. Birds differ in this respect as much as people do—some are very quiet and sedate, others pose and gesticulate like a Frenchman. It would not be easy to exaggerate, for instance, the flashings and evolutions of the redstart when it arrives in May, or the acting and posing of the catbird, or the gesticulations of the yellow-breasted chat, or the nervous and emphatic character of the large-billed water thrush, or the many pretty attitudes of the great Carolina wren; but to give the same dramatic character to the demure little song sparrow, or to the slow moving cuckoo, or to the pedestrian cowbird, or to the quiet Kentucky warbler, as Audubon has done, is to convey a wrong impression of these birds." The coloring, as well as the posing, "is also often exaggerated." But in view of all that Audubon accomplished, and often under such adverse conditions, "it ill becomes us," says Mr. Burroughs, "to indulge in captious criticism."

In brief, Mr. Burroughs has well accomplished his task, and placed within the reach of the many persons interested in the personal history of the great pioneer painter-naturalist, in a handy and comparatively inexpensive volume, a concise history of his life, character, and works. The photogravure portrait serving as frontispiece is from the well-known painting by Healy, made in 1838, now owned by the Boston Society of Natural History.—J. A. A.

Strong on the Development of Color in Feathers.—In a paper¹ of 40 pages, illustrated with 9 plates, Dr. Strong gives a detailed account of his investigations of the development of color in feathers. The work was done in the Zoölogical Laboratory of Harvard University, under the direction of Dr. E. L. Mark. It was begun in the fall of 1899, and was continued at intervals for many months, the material used being principally the remiges of the Common Tern (*Sterna hirundo*), but feather germs were also used from "*Passerina ciris* Linn., *Passerina cyanea* Linn., *Munia atricapilla* Hume, and the common dove," and dry feathers from *Cyanocitta cristata*, *Sialia sialis*, *Pitta sordida*, *Pitta moluccensis*, *Cotinga cayana*, and *Megascops asio*. Dr. Strong was well qualified for the task by his special training in the requisite technique of such investigations, and enjoyed the exceptional advantages of a well equipped laboratory, famous for its facilities for histological investigation. The paper is necessarily highly technical, and the results and not the methods will here receive notice.

A brief introduction is followed by 'II. Methods and Materials'; 'III. The Development of the Feather,' considered under 'A. The Feather

¹ The Development of Color in the Definitive Feather. By R. M. Strong. Bulletin Mus. Comp. Zoöl., Vol. XL, No. 3, pp. 146-186, pll. i-ix, October, 1902.