quantitative methods, he believes that the problems of race distinction "need the precision of the Precise Criterion."

"The contention," he continues, "that quantitative methods are less useful than those ordinarily employed because of the large amount of material required, is mischievous, for it argues that generalizations professing precision are possible by methods that are not precise," and the present tendency of hair splitting among certain ornithologists is timely and well warranted. If the hair splitters were compelled to adopt the laborious method of the 'precise criterion' system, it would doubtless prove a wholesome check upon their prolificness. In the matter of naming geographical forms which in many cases at least, will ultimately be relegated to the limbo synonymy.—J. A. A.

Stone 'On Moult and Alleged Colour-change in Birds.'[1]—This paper is a reply to some criticisms of Mr. Stone's paper on moult, published in the Proceedings of the Philadelphia Academy in 1896, by Mr. J. L. Bonhote in 'The Ibis' for October 1900. Mr. Stone maintains an admirable attitude in reference to the advocates of direct change of pigment in mature feathers, and his statements should do much toward encouraging a careful consideration of the subject by his critics. Mr. Stone says: "'It has now been *demonstrated* that at least many (and apparently all) individuals of every species of bird in Eastern North America which undergoes a spring change of plumage accomplish that change by a moult. If the same thing is not true of European birds, we have certainly a strange state of affairs.'" Mr. Stone very justly complains that the papers of Mr. Bonhote and others who defend color change are lacking in respect to data as to the condition of the specimens examined.

Mr. Stone's paper, in fact, is a brief summary of the results attained by investigations on this side of the Atlantic in reference to how birds acquire the colors of the nuptial dress, and of the methods employed in these investigations. It would seem that this candid statement of the case should lead to careful consideration of the evidence supposed to be antagonistic to the results obtained by extended and careful study of the subject by American ornithologists.—J. A. A.

Seton-Thompson and Hoffmann's 'Bird Portraits.'[2]—'Bird Portraits' consists of 20 half-tone reproductions of drawings by Ernest Seton-Thompson, with descriptive text by Mr. Hoffmann. The birds whose portraits are here given consist of the following species: Song Sparrow, Flicker,

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[1] On Moult and Alleged Colour-change in Birds. By Witmer Stone. The Ibis, April, 1901, pp. 177–183.

[2] Bird Portraits | By Ernest Seton-Thompson | With Descriptive Text | By Ralph Hoffmann | Boston | Ginn & Company | The Athenæum Press | 1901 —4to, pp. 40, with 20 half-tone plates.

Brown Thrasher, Barn Swallow, Chimney Swift, Kingbird, Baltimore Oriole, Wood Thrush, Scarlet Tanager, Rose-breasted Grosbeak, Redstart, Ruby-throated Hummingbird, Bob-white, Goldfinch, Blue Jay, Brown Creeper, Butcher Bird, Golden-crowned Kinglet, Herring Gull, and Chickadee.

The excellence of the drawings, although not here published for the first time, is a sufficient *raison d'être* for the book; their fidelity to nature and delicacy of touch will render 'Bird Portraits' a never failing source of pleasure. The accompanying text by Mr. Hoffmann consists of brief well written biographies of each subject, giving the characteristics of the birds portrayed. While not sufficiently comprehensive to serve as a manual of the birds of any particular locality, the work is one that will prove a favorite with all nature lovers who can appreciate birds and art. — J. A. A.

Gould's 'Louis Agassiz.' [1] — Although not especially an ornithologist, Louis Agassiz, the great naturalist and the great teacher, has an interest and charm for all students of nature. In this little volume of 150 small pages we have an admirably condensed account of his life,— brief, authentic and fascinating. Although of Europe by birth, he was an American by adoption. Apropos of this, the author says: "The most valuable legacies of scientific men are left to the whole world, with no restraint of place and little of time. But there are a few gifts which they leave, as other men leave them, to one country or to one community. And whatever in Agassiz's gift was necessarily thus restricted we find to-day in America, not in Europe. At Cambridge stands his Museum; at twenty places on our coasts are the summer schools which have succeeded to his Penikese; and in the American world is the transmitted enthusiasm which passes from teacher to scholar, — the fire that may light up a whole generation which has forgotten the source where it was kindled."

At the present time when summer schools and marine laboratories for teachers are taken as a matter of course, it may be well to recall the fact that the first of the series was that established by Agassiz on the Island of Penikese in 1872. Agassiz's method of teaching natural history was not through books nor by memorizing the observations of others, but by direct appeal to nature and the cultivation of the powers of observation. This method was an innovation, and a most happy one, as the work of the students trained under his direction has abundantly demonstrated. The general public, and especially all lovers of nature, should feel indebted to Miss Gould for her excellent epitome of the life of the great teacher. — J. A. A.

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[1] The Beacon Biographies of Eminent Americans. Edited by M. A. De Wolfe Howe. Louis Agassiz. By Alice Bache Gould. Boston: Small, Maynard & Company, 1901.