Swarth on the Fox Sparrows.—We doubt whether the geographic races of any species of bird have ever been discussed at such length and with such painstaking detail as has been done by Mr. Swarth in his review of the Fox Sparrows.[1] About 150 pages have been devoted to setting forth the differences between the sixteen races that he recognizes, the details of their distribution, variation, etc., and discussion of the broader problems that the study has brought up.

The several new forms that Mr Swarth has established in the course of his investigations have all been described in earlier papers and it would be idle to comment upon the accuracy of his work, without the material and the time that he has had. We may feel sure, however, that in such a piece of work as this by an author of his standing the forms recognized are valid geographic races, though of course the point as to how many of them, each one of us would deem worthy of designating by name is purely a matter of personal opinion. All this concerns only those who specialize in "speciation," as Dr. Grinnell has termed it. Suffice it to say that of the three groups of Fox Sparrows long recognized, Mr. Swarth admits two races of the *iliaca* group; six of the *unalaschensis* group, from the northwest coast strip, and eight of the *schistacea* group, from the California mountains. By using these "group" names, moreover, he gets along very well without making three separate species as we fear some would feel called upon to do. We should prefer, however, to use the group names in italics without capital initial letters since in the form in which they are printed some over-enthusiastic nomenclaturist of the future may construe them as genera.

The most important part of Mr. Swarth's study is the light which it throws upon the nature of variation exhibited by these birds and its correlation with environment and physical barriers. The northwest coast group he finds is continuously distributed along the mainland from Alaska to Puget Sound with "gradual well-defined variation from one extreme to another" with "abrupt accentuation of certain features at intervals, serving for the differentiation of the several subspecies." The author goes on, however, to show that "the dividing lines between the forms do not, to our knowledge, fall where there are physical barriers to distribution (save in *insularis*), and we do know that there are many such barriers that have no effect."

An example of the last is *Passerella iliaca townsendi* which occurs on the mainland, on islands in the Alexander archipelago, and on the Queen Charlottes, with practically no change in its characters.

The members of the *schistacea* group occupy boreal islands in the mountains separated by areas unsuited for Fox Sparrows, but curiously enough, one subspecies will occupy several of these islands which are quite as

[1] Revision of the Avian Genus Passerella with Special Reference to the Distribution and Migration of the Races in California. By H. S. Swarth, Univ. Calif. Publ. in Zool., Vol. 21, pp. 75–224, September 11, 1920.

widely separated from one another as they are from islands in which another form occurs.

These are the sort of facts brought out by such a study as Mr. Swarth has made, and they are the vindication of this kind of research. The mere establishment of a subspecies for the sake of proposing a new name has little to recommend it.

The discussion under each race is very full and there are frequent maps showing breeding and winter ranges together with outline cuts of bills and wings and a list of some 1600 specimens used in the study. There are several half-tones illustrating habitats and a beautiful colored plate by Allan Brooks. Attractive as is this plate, however, we think that for the purposes of such a study as this a more diagramatic plate would have been better with heads all pointed the same way so that comparisons could be more readily made.

One more thought occurs which is no reflection upon Mr. Swarth's admirable paper, and that is: could not the results have been presented more briefly and is it necessary to list every specimen used in such a study? In these days of the high cost of printing the author who can adequately express his ideas in the fewest words is setting the example that we need for it is no easy matter today to secure the publication of such a monograph as Mr. Swarth has produced.—W. S.

Griscom and Nichols on the Seaside Sparrows[1].—The authors of this paper seem to have had a much more difficult problem before them than had Mr. Swarth in the Fox Sparrows, and while they do not pretend to have settled it and have only devoted a few pages to its consideration they seem to us to have come pretty close to grasping the underlying principle which is responsible for the development of the puzzling series of forms into which the group is divided. The cropping out of dark-colored races between two of much lighter tone along the Florida and Gulf coasts, precludes any idea of a gradual change from one extreme to another, and the authors' suggestion that it is the character of the local salt marsh environment that is responsible, seems most plausible. Birds which live almost entirely in the shelter of grass or scrubby bushes must be strongly affected by the character of this vegetation, the more open bushes, admitting more light tend to produce light colored forms while denser vegetation would be likely to produce darker birds. It is indeed the problem of the dense forest and scrub growth in miniature and another illustration of the close affinity of botany and ornithology in solving evolutionary problems.

The material at the authors' command was, however, insufficient to demonstrate positively this association of environment with subspecies or to show whether or not the several forms adhere strictly to the limits

[1] A Revision of the Seaside Sparrows. By Ludlow Griscom and J. T. Nichols, Abst. Proc. Linn. Soc. N. Y., No. 32, pp. 18–30, November 3, 1920.