

entirely different explanations from that which applies to Juncos. It may be that the gonads and photoperiodism furnish only the initiating impulse and that the magnitude and especially the direction of migration are determined by other agencies.

The comment here offered aims not to detract from the striking and highly commendable work of Rowan. Questions are raised which doubtless are in process of solution at the present time by him. Rowan seems well on the way toward settling certain phases of the migration mechanism. Pending more elaborate confirmations, however, I feel that an over-enthusiastic acceptance of all points in Rowan's theories would lead to an attitude of uncritical satisfaction rather than to the best progress toward a complete understanding of migration.—ALDEN H. MILLER, *February 25, 1930.*

**BERNHARD RENSCH ON RACE-GROUPS AND THE ORIGIN OF SPECIES.\***—This volume must be approached with liberality of spirit. If the reader must assume a professionally defensive attitude, with one hand raised to set off the whole critical battery of his reference shelves, he may perhaps riddle the book at a hundred points, not one of which is likely to be vital. At the same time he may prove himself merely stiff-necked before some of the richest chapters of constructive criticism which have been printed in recent years.

Perhaps the chief trouble is that Rensch falls between two stools. He disclaims the intention of scholarly completeness, yet falls short of the ease and continuity of the scientific essay. Where he might follow the graceful sequences of Darwinian exposition, or the sincere simplicity of a Julian Huxley, he retains the jolting, subdivided, ugliness of the technical paper of the day, though without its pretense to mechanical completeness.

From an elaborate review and analysis of the geographic principle in modern systematics Rensch passes with almost naïve directness to the problem of the origin of species and the evidence for the direct influence of environmental changes, normally unaided by mutation, selection, or the indefinite factors of "orthogenesis."

The heart of the matter lies in the seventh chapter, which examines, and often,—perhaps suspiciously often,—sustains, such laws and such suggestions as serve to coordinate racial and environmental gradations. The total is imposing, and while it goes without saying that such an exposition, confined within 185 pages of text, can in strictness hardly win more than the verdict of "not proven," the array of evidence presented on such matters as progressive variation in size, proportion, and melanin quantity or quality, physiologic factors, sexual affinity and its relation to morphology, the relationships of laboratory and field genetics, and the histological basis of many phenomena, is sufficient to keep a good company of field, museum, and library naturalists employed for a generation, testing and checking one plausible and constructive hypothesis after another.

There is a suggestion that certain American sources have been treated rather casually. Those who are familiar with the array of modern critical paraphernalia which Dr. Linsdale has brought to bear on his races of *Passerella* will be amused to see his paper dismissed as "depending wholly on direct measurements, with no ratios." F. B. Sumner, who is drawn upon more extensively than any other American or Englishman, with J. A. Allen a close second, is apt to be "swallowed whole" with little regard even for his own reservations, as is the case with his experiments on temperature and hair-weight in mice. As may be inferred, the vast majority of sources, outside Rensch's personal investigation in Europe and the East Indies, are German. Two hundred and forty-eight titles are brought into play and assembled at last in an excellent bibliography of cited works.

On page 116 a section heading has been omitted. On page 82 the word "rassen" appears to have been used inadvertently in place of "arten."—T. T. MCCABE, *February 27, 1930.*

**MANUAL FOR BIRD BANDERS.\***—For ten years now, bird banding has been a major activity among the bird students of Canada and the United States. One group of birds after another has yielded to trap ingenuity, until today a surprisingly large

\*Rensch, Bernhard: *Das Prinzip geographischer Rassenkreise und das Problem der Artbildung*. Berlin, Gebrüder Borntraeger, 1929: 8vo., pp. 4 + 206, 27 figs. in text.

\*Manual for Bird Banders, by Frederick C. Lincoln and S. Prentiss Baldwin. Misc. Publ. U. S. Dept. Agr. no. 58, November, 1929, pp. 1-112, 70 text figs.

proportion of the species is being caught and banded.

To the keen leadership of S. Prentiss Baldwin and Frederick C. Lincoln, more than to any other factors, must we attribute the substantial advances in method and interest that have followed Mr. Baldwin's epochal revelation in 1919. And nothing they have done will, perhaps, be of greater value to ornithologists than their recent compendium under the title "Manual for Bird Banders".

Distributed by the Biological Survey in December, 1929, this comprehensive manual provides the banding contingent with detailed descriptions of 35 or more of the best bird traps so far devised, and adds all the information of one kind and another that one about to undertake banding activities would need, provided he is already familiar with the names of the birds. Under appropriate subtitles are described tools, baits, technique of operating traps, methods of holding birds, of attaching bands, of keeping records, and investigations that banders may undertake. Meticulous care has been given to the line drawings and the detailed descriptions, and where photographs are used most of them serve the purpose well. We note that the artist in drawing the Potter Trap (page 22) has placed the "trip-door-step" wrongly. This trap is only practical when the trip-door-step is given one-quarter turn to the left from the position in which it is shown. The lip of the gooseneck should stand at right angles to the wire of the door which it supports.

Throughout the manual the authors stress the importance of releasing banded birds unhandicapped by trap injuries, and many of the traps shown have been designed with this thought uppermost. Visiting traps "every hour or two" would better have been "every half hour or less", at least for some western stations where many species and individuals are present. Thrashers, towhees, quail, and molting birds require immediate release. We believe, too, that it is precarious to attempt to band most nestlings after their pin feathers begin to burst. But since, as the authors point out, "data obtained from birds banded as fledglings have certain obvious values that are not represented in the records of those fully adult at the time of banding", it is of the utmost importance that, wherever it can be safely done, nestlings be banded. The destruction of nestlings is a fertile field

for observation. How many people have actually seen cats and weasels follow human trails to nests? Is not most of our knowledge (?) on this subject presumptive? We have no check on the unfound nests destroyed by these animals, without the assistance of human trails. Snakes and jays deliberately hunt the trees over for nests. Why should not cats and weasels do the same? This point is emphasized, because, in the reviewer's opinion, neither observed mortality nor consequent waste of bands constitutes a valid reason for not banding all nestlings young enough to be willing to remain in the nest. The very fact that there is a larger mortality among young birds and fewer recoveries calls for increased banding of nestlings.

We are glad that the authors recommend trapping and banding troublesome predators and carrying them to a distance from the station for releasing. Aside from the fact that the distributional movements of predators are of as much interest scientifically and economically as are those of the birds they try to destroy, their function in Nature's scheme may well be that of eliminating sick and wounded individuals. Healthy birds when free seem to have little trouble escaping from the smaller hawks.

This manual comes appropriately at the end of a decade in which our thought has been occupied with methods of catching the birds. With a quantitative program assured, we can now turn to the qualitative effort which is bound to yield abundant dividends.—J. EUGENE LAW, *January 30, 1930.*

#### MINUTES OF COOPER CLUB MEETINGS

##### SOUTHERN DIVISION

JANUARY.—The regular meeting of the Southern Division of the Cooper Ornithological Club was called to order at 8:15 p. m., January 28, 1930, by President Harry Harris at the Los Angeles Museum. In the absence of the regular secretary, Wright M. Pierce was appointed Secretary *pro tem*. The minutes of the December meeting were not read.

New names as follows were proposed for membership:

Jack D. Baker, 435 First St., Santa Rosa, Calif., Phillips Kloss, 3420 Webster St., Oakland, Calif., Frances H. Allen, 215 La Grange St., West Roxbury, Mass.,