ORNITHOLOGICAL LITERATURE 1

CATALOGUE OF BIRDS OF THE AMERICAS AND THE ADJACENT ISLANDS. By Charles E. Hellmayr and Boardman Conover. Field Museum of Natural History, Zool. Series, 13, part 1, number 1: vi + 636 pp. April 30, 1942. \$5.09 postpaid.

After some unavoidable delay this keenly anticipated volume of the "Catalogue" by Hellmayr and Conover has appeared, and that it fully lives up to the standard set by previous parts goes without saying. The matter contained deals with the Orders Rheiformes, Tinamiformes, Galliformes, Gruiformes, and Columbiformes. The sequence of families and genera within these Orders follows that of Peters' "Birds of the World," though the grouping of the Orders themselves necessarily throws them, and the Orders to follow in future volumes, out of the Peters sequence. Presumably, this departure is to take full advantage of Mr. Conover's extensive knowledge of certain groups: in any event the arrangement will cause no inconvenience of moment to the public for whom the work is intended. The species and subspecies arrangement within the families adheres in the main to that of Peters, but some variation is to be noted here and there. One new name is proposed: Penelope dabbenei to replace Penelope nigrifrons Dabbene (not of Lesson, 1831).

In spite of 'the dual authorship, the method of treatment remains the same as in preceding volumes. The bibliographic references are invaluable and the commentaries which occur as footnotes on almost every page constitute at times almost a systematic review of a genus or species, although this the authors modestly deny in their preface. As in previous volumes, too, there is emphasis (it will be called over-emphasis in some quarters) on the use of trinomials for forms which are believed to be representative, whether or not intergradation has been shown. The application of this principle is too controversial a subject to be discussed in a short review. Individual systematists will, as always, follow their own beliefs and certainly none can quarrel with Hellmayr and Conover for so consistently following theirs.

So far as the territory covered by the American Ornithologists' Union "Checklist" is concerned, there seems to be only one basic name change. Transfer of the old, familiar name of the White-faced Glossy Ibis to the Limpkins (p. 301) is to be regretted but there is no alternative under existing rules. The races of the Rock Ptarmigan, nelsoni, hellogae, and dixoni are united (p. 205) under the single name of americanus Audubon. However, this and a number of other items relative to the inclusion or rejection of proposed subspecies, and of the reduction to subspecific status of forms now carried as species, are matters which will doubtless receive due consideration from the Committee on Classification and Nomenclature in preparing the next edition of the "Check-list."

Typographically, the work is a product of the Field Museum Press, a fact which makes further comment in this respect superfluous.—A. J. van Rossem.

LIFE HISTORIES OF NORTH AMERICAN FLYCATCHERS, LARKS, SWALLOWS, AND THEIR ALLIES. ORDER PASSERIFORMES. By Arthur Cleveland Bent. United States National Museum Bulletin 179, 1942. xi + 555 pp., 70 plates. \$1.00. Supt. of Documents, Washington, D.C.

Persons already familiar with the Bent Life Histories require no reminder of the appearance of new volumes, but newcomers to bird study need to learn of them early if they are to get copies. The accelerated rate of issue of recent numbers brings reassurance that we may soon have the completed series. Already this is becoming the most widely sought work on American birds.

Accommodation to an expanding field of study is shown in part by the tendency to use more help in the preparation. Mr. Bent recognizes that accounts written

¹ For additional reviews see pages 161, 182, and 210.

by a person thoroughly familiar with the species may be more satisfactory than ones prepared chiefly with compiled material. Since his own experience was not sufficient for every species, he has solicited at least thirteen accounts for this volume, and these adhere closely to the arrangement of material adopted for this volume. Especially notable for its thoroughness and originality is the chapter on the Prairie Horned Lark by Gayle Pickwell.

Source materials for this work have been modified greatly by discoveries and changes in mode of study, which came soon after the start of its preparation. Retention of the original plan and objectives, however, has made the life histories more valuable than if they had been changed to meet the demands of some recent fad

A reader is not likely to be equally interested in all the accounts. For example, the reviewer found that of the 47 species treated he was unfamiliar with 18, slightly familiar with 6, familiar with 17, and had conducted prolonged studies of 6. He turned first to the last group of life histories, and he has not yet read any of the first group!

The task of finding and sorting information has become too great to expect all the important items to be included for any species. Even though the assembly has been done remarkably well, we wonder sometimes what basis has been used for acceptance or rejection of material, especially in the distributional section. Published records, in some instances, extend the areas or seasons given. Some records cited, which are marginal, would carry reassurance if accompanied by some reference to the authority or place of publication. This applies especially to the flycatchers. A suspicion that the nest shown at the top of plate seven was not that of the Cassin Kingbird was verified when Mrs. Grinnell learned from the photographer that the locality was Wild Horse Mountain, about five miles west of Clear Lake, Modoc County, in the northeast corner of California, and that he took the parent bird to be an Arkansas Kingbird.

It seems obvious that insufficient basis is available to justify writing a history for each geographic race of the passerine birds. Modification of the plan so as to treat full species as units would condense the books and make them of considerably greater usefulness. The features of behavior treated rarely are known well enough to permit adequate treatment for separate races. The user of the work might be grateful also if the accounts of distribution were simplified. He will consider the volume not as an index to all facts concerning flycatchers, larks, and swallows, but as a valuable abstract of the hidden published knowledge of those birds.—Jean M. Linsdale.

Nesting Birds and the Vegetation Substrate. By William J. Beecher. Chicago Ornithological Society. 1942: 6 x 9 in., 1-69 pp., 1 pl., 10 figs. \$1.00 at Field Museum Book Shop.

The quality of the groundwork for part, at least, of this paper is indicated by the number of nests found on the 482 acre study area: about 500 in 1935, about 700 in 1936; in 1937, the one year on which the paper is based, 1332 nests are tabulated, although the text (pp. 1 and 2) says "more than twelve hundred determined to exist" of which "over 85 per cent . . . were actually found". The description of plant succession, both geologic and modern, on the area is interestingly and thoroughly done; the account of the present plant communities and their general relations to nesting is good, barring a few questionable interpretations stated baldly as fact. There follows a section in which for each nesting bird is listed the total number of nests, the number in each cover type and the number of acres of that type, the calculated number of nests per hundred acres, and the number of acres (all cover types together) per nest.

The value of this section is reduced by a "correction" of the acreage of some of the cover types, a correction which works in one direction only. That is, about 45 per cent of two marsh communities was considered to be "unavailable to ground nesting birds," hence omitted from the total acreage, because of unusually

high water, while a neighboring area which "proved unusually attractive" for nesting that year was included at face value (p. 15). "Likewise, because most of it occurred in strips along roads or railway embankments and was clearly unused by birds for other reasons" (p. 28)—whatever that means—about 51 per cent of the prairie disclimax was thrown out. The same half-logic shows up in the nest density figures. Acres-per-nest was worked out to two decimals, even in the case of single nests, giving the appearance of extreme precision; yet the nesting density of the Prothonotary Warbler was calculated by dividing the number of nests into the total acreage of "Modified Woodland" (mainly "of the oak-hickory type" (p. 24)), of which only a part fronts on water.

A further refinement of the basic data follows in the addition of a numerical value "feet of edge per acre," determined by dividing the total boundary of all the scattered blocks of a particular community by the total acreage of that community; a table was made to show, for each plant community, the actual acreage, the "available" (i.e., "corrected") acreage, the number of feet of edge per acre, and the number of nests of each species, distinguishing between first nests and later or dummy nests.

In analyzing his data, Beecher limited himself almost entirely to the single aspect of nesting cover, the "vegetation substrate" of the title. His main points are two—an attempt to measure more exactly the importance of edge, or mixture of cover types, and to show the relation between inherited nest patterns and plant life-forms as the determining factor in nest distribution—neither of which could be proved by one year's study on a single small area, particularly when that year was one in which "the water table in May stood six inches higher than normal" (p. 15).

To measure edge effect quantitatively, Beecher converted the number of feet of edge per acre (using the "corrected" figures) to feet of edge per 100 acres, for comparison with the calculated number of nests per 100 acres. A scatter-plot based on these figures is said to show a definite, positive correlation between feet-of-edge and nest-density, but since at least two other variables (different kinds of cover, different kinds of birds) are also involved, the conclusion seems too strongly stated. Attempting to measure even more closely, he took a 38 acre sample (mostly marsh) and didived it into quarter acre quadrats, in each of which he counted both the number of plant communities and the number of nests; analysis of these data gave a more precise and quantitative expression of the original conclusion. Unfortunately—and one has to turn back 25 pages to find this—the sample plot contains a large amount of the "unavailable" cover thrown out earlier, as well as the 11 acres that were that year "unusually attractive" for nesting. This time, the "unavailable" acres are counted in.

Beecher's discussion of his second major thesis is stimulating but inexcusably one-sided. Thus, those species which nest earliest do so "because they are notably independent of vegetation of the year" (p. 48): there is no mention, much less disproof, of the possibility that they may seem independent because physiologically they must nest early and must take their nesting cover as they find it. Again, a half-page or so develops the theory that the Prairie Marsh Wren prefers to nest in Typha and Carex lacustris because these plants are particularly suited to its nest-building habits; the fact that the Short-billed Marsh Wren, with a very similar nest, uses a different sort of cover is dismissed in a few lines, "its prime requirement being a drier situation" (p. 54)—debatable, at the least.

There are many other instances of careless thinking, and several of careless workmanship. One example of the latter: in the text-references to the bibliography I counted 20 mistakes, including references to four papers that were not listed at all.

There is material here for a fine paper on a local nesting study, and a beginning toward a much broader exploration of the factors which underly the selection of nesting cover. The one needs only a further analysis of data already in hand, but the other enjoins a great deal more of both digestion and assimilation. Their present mésalliance is not ready for serious consideration.—F. N. Hamerstrom, Jr.

SHORT PAPERS

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