

to be rare in our locality that therefore the person who comes for a brief study will not find it. For nine years I have looked in vain for the Short-billed Marsh Wren in this county; but last year one of my students found one! A week later I also had that privilege.

In our critic's statement, "It is unnecessary to call attention to other identifications almost as glaring, for enough has been said to illustrate the danger of publishing local lists without years of experience gained in the locality itself." I cannot but feel that he has been led into a too sweeping statement by the style of criticism adopted, and certainly his idea that this list is intended to pose as a local list is mistaken. A careful scrutiny of the list does not reveal any other species than those which he has mentioned to which serious exception should be taken.

It is our intention to revise the whole paper to conform to the late Supplement to the A. O. U. Check-List, when other records which seem to us questionable will be called attention to. Another expedition of a similar nature, but with a scientific setting, is being planned, when we shall have opportunity to compare this initial work with the later.

LYNDS JONES, *Oberlin, Ohio.*

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### Publications Received.

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*Pacific Coast Avifauna, No. 2.* (A List of the Land Birds of Santa Cruz County, California.) By Richard C. McGregor. Cooper Ornithological Club of California. May 15, 1901.

This paper of nearly 22 pages is the second in the series of papers too extensive for publication in the official organ of the Cooper Club. It is a most happy arrangement by which the papers of greater importance which this active organization is presenting from time to time may be preserved separately, with their own paging.

The paper consists of two parts, the Introduction and the list of Land Birds. The Introduction gives one an insight into the methods of work, the amount of time spent, the sources of

information and a lucid description of the county, including the "Faunal Position of Santa Cruz County," taken from "Life Zones and Crop Zones of the United States," by C. Hart Merriam. Many foot note references in this part as well as in the list which follows furnish a bibliography to the paper.

The list of Land Birds impresses us as being one which has been prepared with great care both from the standpoint of an accurate list and in giving full credit to all who have worked in the region. The annotations upon the 139 species, though usually brief, are well chosen and add interest and value to the list. The only improvement in the typographical appearance, which is unusually good, might be a different style of character for the reference figures.

The paper is a valuable contribution to our knowledge of the birds of that region, and the author is to be congratulated.

L. J.

*On the Osteology of the Striges. (Strigidæ and Bubonidæ.)*

By R. W. Shufeldt, M. D., Proc. Am. Phil. Soc., Phila., Vol. XXXIX, No. 164, pp. 665-722, pl. X-XVII. Dr. Shufeldt has written much concerning the anatomy of Owls at various times and in different places since the publication of what he tells us was his first paper which was a memoir devoted to the *Osteology of speotyto cunicularia hypogæa*. In the present paper Dr. Shufeldt gives "a very general contribution to the study and comparison of the osteological characters presented on the part of the skeletons of all of the North American species, or at least genera, of *Strigidæ*." There are a number of illustrations, some of which are very fine plates and which are very satisfactorily elucidated in the text. Those of the skull are especially well executed and serve well to illustrate the interesting and valuable points Dr. Shufeldt directs attention to in the consideration of the morphology of the cranium to which particular attention is given, although the vertebral column and appendicular skeleton are not neglected.

In the beginning of the work, Dr. Shufeldt gives a number of osteological features which have been pointed out by Mr. F. E. Beddard and then supplements this by a list of his own,

which furnishes a valuable synopsis of very easy reference.

W. E. R.

*On the Osteology of the Woodpeckers.* By R. W. Shufeldt, M. D., Proc. Am. Phil. Soc., Phila., Vol. XXXIX, No. 164, pp. 578-622, pl. IX. In this paper Dr. Shufeldt gives a detailed account of the comparative osteology of the *Pici*, being the result of ten years collecting of these forms. The author has written a number of articles on this subject, the most important of which appeared in the *Proceedings of the Zoological Society of London*. (February 3, 1891,) but the present memoir is the most complete one that has ever been written on the subject.

Dr. Shufeldt takes the subject up in a *general* rather than in a *special* manner and calls attention to the salient osteological features of many species of Woodpeckers, chiefly American, rather than devoting himself in detail to a single form, and, herein to our mind greatly rests the value of this paper; for in the present state of our knowledge it seems to us that this paper covering the ground which it does is of far more value than an elaborate account of the osteology of a single type would be, for, as the special osteology of the woodpeckers has not been as yet satisfactorily worked up it follows that a general work such as we have before us is what is especially desired at the present time.

Dr. Shufeldt also gives his views as to the relationship of the Woodpeckers and we cannot do better than quote his own words: "It is my opinion that it is to the great Passerine group that the *Pici* are more nearly affined than to any other existing suborder of birds. \* \* \* \* I here venture to state that as our knowledge of the morphology of *Aves* becomes more perfect the fact will be appreciated that the *Pici* and the *Passeres* are divergent groups from a common stock in time; and that the former have simply become highly specialized and modified in accordance with their mode of life and habits."

W. E. R.

*The Osteology of the Cuckoos. (Coccyges).* By Dr. R. W. Shufeldt, Proc. Am. Phil. Soc., Vol. XL, No. 165.

In this memoir Dr. Shufeldt gives particular attention to the osteology of the *Geococcyx californianus*; most of the plates are well executed, especially those of the skull and pelvis, which structures receive detailed attention in the text. Taking *Geococcyx* as a basis for comparison a number of different types are considered, as *Crotophaga*, *Centropus*, *Diplopterus*, *Coccyzus*, and others. It is of interest to note that in *Coccyzus* the trachial rings are as completely ossified as are any of the trachial rings among the *Passeres*. There is also herein included some notes on the osteology of a nestling of the *Coccyzus americanus*. At the end of the paper there is a "Synopsis of the Principal Osteological Characters of the three subfamilies of of the United States Cuculidæ"; which probably will be found quite useful, and finally Dr. Shufeldt closes the subject with a very brief but none the less interesting discussion of cuculine kinships.

W. E. R.

*Yearbook of the United States Department of Agriculture, 1900.* The value of this publication to the people it reaches is undoubtedly great. 500,000 copies are issued yearly. Ornithologically, two papers interest us. The first: *How Birds Affect the Orchard*, p, 291-304. By F. E. L. Beal, B. S., gives an informal annotated list of some birds important to the fruit grower, which include Woodpeckers, Titmice, Nuthatches, Brown Creeper, Cuckoos, Baltimore Oriole, Warblers, Vireos, Birds of Prey, and Shrikes. Under the somewhat misleading subtitle of "Birds Harmful to the Orchard," we have the Purple and House Finches, Robin, Catbird and Cedar Waxwing. Although the varieties of fruit eaten, extent of damage, and localities affected are cited in the text; the wisdom of so placing some of our Eastern birds, particularly the Robin, in this category might well be questioned, as even the qualifying afterthought expressed in the investigator's belief "that the damage is usually caused by an abnormal abundance of a species within a limited territory," cannot wholly efface the impression already received. The omission of the European House Sparrow, which unquestionably destroys a greater variety and quantity of cultivated fruits in many sections of the country than all the native

species together, is perhaps unfortunate. *The Food of Nestling Birds*, p. 411-436, by Sylvester D. Judd, Ph. D., goes into the subject pretty thoroughly. It is surprising what a large amount of valuable information the writer has placed in order. A number of diagrams illustrating the proportion of food of both nestling and adult of many of our common birds show the comparative value at a glance, where a mere statement of percentage would fail nine times out of ten. Several plates from photographs taken of young in nest also appear. In conclusion he says: "It will be observed that whatever the character of the food of the adult bird, the young, excepting those of Doves and Pigeons, are at first fed on animal diet, and that this diet is gradually changed, where change is necessary, to conform to that of the mature bird. This is probably due to the fact that animal food has a higher nutritive value and is more easily digested than the available vegetable food. As nestlings increase in weight from one-fifth to one-half daily, and at certain stages of growth require daily more than their own weight in insects, it is essential that their food should be readily obtainable. Spiders, grasshoppers, caterpillars and crickets answer these requirements very well and are a favorite nestling food with many of passerine or perching birds. Birds that are largely vegetarian mingle fruit or grain in constantly increasing quantities with the insects fed to their young, though insects usually remain the chief component of the food until maturity is nearly reached. But these birds generally substitute such insects as hard beetles, carabids, dung-beetles, may-beetles and weevils for the softer food of other perching birds. The caterpillars selected are generally such hairless kinds as canker worms, cutworms, and army worms, all of which are serious pests. But hairy caterpillars are eaten to a certain extent." F. L. B.