Incidentally, we must point out certain blemishes in this paper. Citations will indicate their nature. It is said of the bird *Legatus*, which appropriates for its own use nests of oropendola: "its motives are unworthy". Again: "The poor oropendola sits humbly . . . waiting for a chance to enter her own home", etc. In an ostensibly scientific paper this sort of thing, it seems to me, is wholly indefensible. Sentiment, anthropomorphism, have no place at all in *real* ornithology. They tend to obscure rather than to clarify interpretations of animal behavior. It was Dr. J. A. Allen, forty-five years ago, who said of some author: "[He] fails to distinguish clearly between the *science* of ornithology and the *sentiment* of ornithology—both legitimate in their way, and not necessarily antagonistic, though not always compatible" (*Auk*, I, 1884, p. 302).

But, forgetting this very common type of "blemish", we wish again to express the warmest approval of this latest paper of Chapman's; and we wish every prospective writer on bird behavior would read it and *study* it, and then pattern his own methods and resulting exposition after it. Furthermore, no one need go to Central America to find many a subject of quite as interesting character as oropendola; no one organism is, from the truly scientific viewpoint, more "interesting" than another!

There is an astonishing lack of thoroughgoing natural history available concerning even our commonest North American birds. For example, we recently tried to find out something about Song Sparrows, any western subspecies; we failed completely, save for the usual uncritical, impressionistic, vague type of account such as appears over and over again, with suggestive similarity, in the usual run of bird books. And from Audubon down, with only a few refreshing exceptions, this sort of ornithological literature seems to be getting worse! When a distinguished ornithologist like Chapman reaches a point where he deems it worth while to devote months of his time to studying the habits of one kind of bird, then there can be no question as to the worthiness of this pursuit on the most scientific of grounds.—J. GRINNELL, *February 20, 1929.*

A RATIONAL PLAN FOR BIRD PROTECTION*.—Now that civilized people everywhere are experiencing a Renaissance in their interest in animal life and especially in bird life it is only natural that they should show concern over agencies that threaten the continued existence of those animals. There has been, especially of late years, much discussion of the subject of bird protection in America. Much of this discussion has applied to special, small phases of the general problem or to conditions as they existed in some one locality, often unique when compared with a larger area. At other times the ideas have been supported by tradition or sentiment, and, too often, they have been projected with the object of compromise with some powerful commercial interest.

These varied and conflicting viewpoints and interests tend to confuse rather than to clarify the situation for the person who is unable to study all the original facts. The greatest need, then, has been, and is, for some non-partisan and capable worker to study thoroughly and to present clearly the position of our bird life as it affects and is affected by man. Contrary to the seemingly prevalent notion, there is abundant factual basis for the support of foundation principles upon which to build definite programs for the administration of wild animal life. Progress in this direction, it seems to the reviewer, will depend upon, first, the acceptance of these principles and, second, the much simpler task of gathering the facts needed for the local application of this knowledge.

Mr. Nicholson's book deals so well with birds from this point of view that no person in any way interested in bird protection can afford not to read it. The fact that the author uses for his illustrative material the birds of England need not detract from its value to Americans. In fact, this may be considered an advantage; for an opportunity is left for the reader to focus attention on the discussion of the principles as they are developed. Another feature that should be pointed out is that serious disturbance of the bird life by man has gone on for a longer time in England than in America. In one sense, then, this work might be considered as prophetic of some conditions that may be expected in America at some future time.

Mention of a few of the points stressed in the book will serve to indicate how

*Birds in England | An Account of the State of | Our Bird-life | and | a Criticism of Bird Protection | By E. M. Nicholson | With eight Wood-engravings | by | E. Fitch Daglish || London | Chapman and Hall, Ltd. | 1926.

thorough the investigation has been made and how fair the judgments have been rendered. For instance, it is just as true in America as in England that "man is inclined to exaggerate his deliberate influence upon nature and to leave the far more considerable indirect effects in obscurity." The author further points out that the extensive topographical changes in England during the last four centuries have done more to modify the character of bird life than any direct attentions on the part of man. At another place he concludes that it is a "reasonable first principle that Nature is capable of looking after herself, and that consequently all unnatural interference on the part of man is bad." Of course, no claim is made that this principle need be applied universally.

A careful analysis of the past and present status of each breeding bird species in England showed that fifteen species were definitely lost while seventeen were gained. Fifty-eight species showed a decrease in numbers contrasted with sixty-three that have actually increased within the time covered by reliable records. The definite statement is made that the "numerical bird population of this country is infinitely greater than it was in the Middle Ages." Advancing civilization generally tends "to make the common kinds commoner and the rare rarer." The causes for the change in status are known for all but a few of the species.

The case of the little owl is treated fully as a concrete example of a situation that has been rather vaguely written up as a possibility in America. Attempts to introduce this non-native bird into England were failures until after all the larger species of raptorial birds had been nearly exterminated. Then, apparently, the owl took advantage of a humanly created vacancy in the avifauna and quickly spread and multiplied. More than that, the species, considered beneficial in feeding habits in its native home, proved to have especially destructive habits in England.

The sketches of the lives and works of early ornithologists in England, especially as to their influences upon the development of the study of and interest in birds is well worth reading by American students of birds. So many of the traditions regarding bird life in this country had their beginnings in England that this part of Mr. Nicholson's discussion applies to America now nearly as well as to England.

Although the thoroughgoing denunciation of the hobby of egg collecting, as practiced in England, appears to be justified, it is fair to say here that the importance of this kind of bird destruction in the United States is so small that it is insignificant when compared with the more subtle, indirect kinds.

The reviewer found in this work few expressed opinions with which he could not agree. The statement (p. 16) that it is "agreed that at present the necessary destruction [of insect pests] is performed almost entirely by birds" seems to have been made without any such careful weighing of evidence as marks most of the book. Another opinion that appears to be out of place in this book is the author's implication that the British environment may ". . . rapidly recapture the native characteristics and differentiate a British race . . ." from introduced grouse that probably are different from the original stock. In one other place, where the author discusses the problems of type of planted shrub (native versus non-native) and style of gardening as they affect the presence of birds, the treatment appears to miss or avoid the salient points of the question.

In his criticism of some of the disappointing features of placing too much emphasis on the use of sanctuaries as means of preserving bird life, Mr. Nicholson makes comments that might be applied equally as well to some of the plans of wild life management that have been suggested, and even practiced, in the United States. In part, he says:

"To the true lover of Nature there is something almost as repugnant in these wild game preserves, in which terns, and skuas, and plovers, take the place of pheasants, as there is in the avaricious system which has for the moment necessitated them. . . . A colony of terns, for example, can only be appreciated perfectly in the solitude which is in Nature its invariable setting; surveillance clouds the experience as hopelessly as the emotional message of an old cathedral is ruined by paying gate money to be led round it with a gang of tourists under the dreary guidance of a sacristan. These open-air museums, around which visitors are conducted by a guide, zoological gardens, with keepers but no wire-netting, represent an expedient which the selfish-

ness of man has rendered temporarily indispensable, but to regard them as an end in themselves is dangerous and degrading to our wild life. Our minds, which love a record of any kind, take a poultry-farmer's delight in the multiplication of terns, for instance, at a handful of breeding stations, which Nature is far from sharing."

While it is true that many American naturalists probably have opinions similar to the majority of the ones given in the present work and that summaries of these opinions have been published, it is also true that in most cases writers have failed to publish the *evidence* upon which their views are based. The reader, then, without extensive field experience, must be guided largely by the "authority" of each writer. "Birds in England" is distinguished by containing a large amount of evidence.—JEAN M. LINSDALE, *March 2, 1929.*

Some interesting contributions have recently appeared from the pen of Mr. M. Hachisuka, of Tokyo. One of these is a well illustrated scientific account of "Variations Among Birds (Chiefly Game Birds)" (=Supplementary Publication No. XII, The Ornithological Society of Japan, November, 1928, pp. x+86+12, 4 color plates, 20 halftone plates). Here we have cited examples of various abnormalisms in the coloring of birds—albinism, melanism, xanthochroism and erythrism; also of gynandromorphs, so-called hermaphrodites, and "mutations" and hybrids. Among the latter are described and figured (colored plate by Allan Brooks) crosses between Valley and Mountain Quail, Valley and Desert Quail, and Desert and Scaled Quail.

Another paper of Mr. Hachisuka's is entitled, "Egyptian Birds Mummies" (reprinted from "Tori", Vol. VI, December, 1928, No. 26, 5 pp.). This paper lists some 35 species of birds as represented among the 1000 or more mummies examined by various investigators. We wonder if feathers of any of the species of complicated color pattern were preserved so as to show any positive differences that might obtain between the mean of the species at the time the mummies were made and the mean for specimens in the region of the Nile Valley to-day. In an elapsed interval of, say, 5000 years, there *might*, in the case of intricate barring or mottling of feathers, be apparent some appreciable change, evidencing evolution in process. Someone with the opportunity and the experience requisite for such an inquiry ought to look into this question. So often we read comments of many laymen and some men of science to the effect that color characters in birds are fleeting—easily and quickly modifiable. We need definite data as to the rate of evolutionary change, whether fast or slow, in terms of millennia.—J.G.

MINUTES OF COOPER CLUB MEETINGS

NORTHERN DIVISION

JANUARY.—The regular monthly meeting of the Cooper Ornithological Club, Northern Division, was held in Room 101 Zoology Building, University of California, Berkeley, on January 24, 1929, at 8:00 p. m., with Vice-president Clabaugh in the chair and about 75 members and guests present. Minutes of the Northern Division for December were read and approved. Minutes of the Southern Division for December were read.

Names proposed for membership were: Miss Mabel Hibbard, 990 Geary St., San Francisco, by Miss Muriel Pettit; Mr. Bob Merrill, Arlington Rd., Berkeley, and Mr. Dan Ormsbee, 333 Alcatraz Avenue, Oakland, by Mr. B. C. Cain. The proposal of Dr. Theodore Sherman Palmer for honorary membership, read before the December meeting, was brought up for final action. Dr. Palmer was unanimously elected, thus ratifying the action taken by the Southern Division at their December meeting. Mr. Swarth suggested that since Dr. Palmer's birthday was but two days off the Secretary be instructed to wire him on that date, of the Club's action. It was so ordered.

The Chairman announced that election of officers of the Division for the current year was in order and that at the December meeting the following nominations had been made: President, John G. Tyler; Vice-president, Ernest D. Clabaugh; Secretary, Hilda W. Grinnell. No other nominations being offered, Mr. B. C. Cain moved that the Secretary be instructed to cast a ballot electing these persons to office. This was done as ordered.

Mr. Grinnell reported upon the second edition of Taverner's "Birds of Western Canada", recently issued by the National Museum of Canada. Considering pages,