

and it will have to be far more cogent than any evidence heretofore put forth, before the advocates of the sale of game can be said to have proven their position as champions of the poor man. There seem always to be more lazy men with money, who insist upon their right to eat game regardless of conservation, than there are vigorous men with guns who appreciate the game more for its recreative than for its food value, and who believe in careful conservation.

Since the weight of practically all authority, governmental and scientific, is unequivocally in favor of laws prohibiting the sale of game, and since non-sale laws have become popular as game laws the country over, it is anticipated that the people, if warned as to the significance of these measures, will record their decision aright. The danger lies in the possibility that many voters will not adequately understand the propositions as they appear on the November ballot. Here lies the opportunity of all interested in the wild life.

The Referendum holding up the law prohibiting the sale of ducks and wild pigeons, in addition to other game, stands, and will appear on the ballot in November.

Efforts are now being made to place on the ballot an Initiative measure providing for the sale of deer, quail, trout, doves, ducks, grouse and other game.

What are we going to do in behalf of California's Wild Life?—WALTER P. TAYLOR, Chairman Northern Division Committee on Conservation, C. O. C.

PUBLICATIONS REVIEWED

A DETERMINATION OF THE ECONOMIC STATUS OF THE WESTERN MEADOWLARK (*Sturnella neglecta*) IN CALIFORNIA. By HAROLD CHILD BRYANT. (Univ. Calif. Publ. Zool., vol. 11, no. 14, pp. 377-510, pls. 21-24, 5 text figs. Published February 27, 1914.)

For some years past the Western Meadowlark has been a subject of contention in the California legislature, there having been several attempts, strongly supported, and as strongly opposed, to deprive the bird of its legal protection, leaving it subject to the onslaughts of the farmers who claimed that it was harmful, and of the hunters who wished to regard it as "game". Mr. Bryant's studies, carried on under the auspices of the California State Fish and Game Commission, were designed to ascertain the truth or falsity of the many contradictory statements that have been made regarding the bird, primarily in order that the Commission could shape its course intelligently in the future, in guiding any pertinent legislation. How thoroughly this work was done is shown in the published report here under consideration.

There are but few species of birds that have been given as close and critical scrutiny and study as has the subject of this paper, or that have had any one phase of

their existence reported upon in such detail. The results here tabulated and commented upon obviously represent an immense amount of painstaking labor and observation, and apparently leave little or nothing further to be said upon the subject. Many points in connection with the methods pursued are of decided interest, and in one regard at least, the author was exceptionally favored by the circumstances under which his studies were pursued. Working with the backing of the State Fish and Game Commission, he was enabled to call upon the entire force of wardens to supply him with material, hence he had the unusual advantage of extensive series of specimens obtained from whatever points, and at whatever seasons, seemed most desirable. This study, therefore, is noteworthy in that it is the result of observations on the food of a single species of bird, based on a large amount of material carefully and systematically gathered at the same localities at regular intervals throughout the year, many points within the state being represented in the collection.

The paper throughout presents every evidence of careful and painstaking work, intelligently directed, and Mr. Bryant's conclusions will probably be accepted unhesitatingly by every unbiased reader of his report. Of the methods used, examination of stomach contents is of primary importance, nearly two thousand Meadowlark stomachs having been subjected to scrutiny and analysis in the course of the work; this supplemented by careful field observation of wild birds. Although experimentation with caged birds is mentioned as sometimes desirable, we do not understand that anything of the sort was attempted in the present study, the nearest approach being the observation, weighing, etc., of nestlings.

Altogether, to one who has not specialized on the food of birds, it would seem as though the author had approached his subject from every possible angle, and had given due weight to every conflicting element, and due prominence to every different phase of the Meadowlark's existence. His verdict is that the bird deserves the protection at present accorded it, the damage done by the species being of small moment, at restricted localities, and for but a short period of the year, while the eating of insects goes on through all the seasons. Although the paper is primarily concerned with the food of the Western Meadowlark, it also has much to say on related subjects, the introductory chapters containing many pages dealing with the different methods used in the study of economic ornithology, and with the evolution of the study.

Of adverse criticism, but little suggests itself. The work evidently was most carefully done, and the results presented accurately, and in a fair and unbiased manner. To the non-specialist, however, several questions are sure to suggest themselves,

We are informed at some length of the advances that have been made in the methods used in such economic studies, and, as before remarked, there seems but little doubt that the author and other present day workers in the same field, use much more exact methods than were formerly in vogue. Also there is much said for and against methods used by different workers at the present day. These arguments would be much more impressive if it were not for the fact that the various different schools all seem to arrive at approximately the same results! Thus it is fair to say, that, giving Mr. Bryant all possible credit for working out and making known all manner of interesting details in regard to the Meadowlark, almost any intelligent observer and collector of birds would, from his own general observations, have arrived at approximately the same result, namely, that the bird does some little harm, more good, is an attractive feature of the region, and should not be sentenced to destruction. We do not mean at all to decry such studies as the one under consideration; but, to draw a simile from another field, in getting average dimensions of birds or mammals, it matters little whether one hundred or two hundred pertinent specimens be measured, the results will be about the same. Similarly, while such exhaustive studies as this one of Mr. Bryant's may yield many interesting facts, it is safe to say that the final decision thus reached will not be markedly at variance from what could be learned from a somewhat more cursory consideration of the subject. For immediate, practical use by a Commission seeking to apply the acquired information in the furtherance of legislation, it would seem that substantially the same results could be secured with a lesser expenditure of resources and energy. This, of course, in no sense militates against the excellence and desirability of Mr. Bryant's work, as here presented.

Another possible suggestion is that in some respects the paper might have benefited by being more rigidly confined to the limits indicated in the title. There are various discussions of greater or less length, of questions not particularly germane to the subject, containing some rather sweeping assertions which the author naturally can not here stop to discuss at any length, and which can not be considered as established facts. Thus, among other things, we are casually informed that birds from the northwestern coast region of California are appreciably darker in color than those from the southeastern part of the state (p. 478), and also that the number of young success-

fully raised is less than with most other birds (p. 404), statements which do not carry conviction, and which might well have been omitted. A possible weak place in the weighing of evidence is afforded in the tendency shown towards taking "rancher's verdicts" at face value when such are favorable to the birds, while antagonistic views are commented upon as though likely to have been based upon evidence that was "circumstantial" and "probably exaggerated".

These criticisms are all of relatively unimportant points, of course, which do not affect the general excellence of the paper. This is thoroughly deserving of all praise. A difficult and complicated problem is treated in a most competent and convincing manner. The tedious drudgery of stomach examination, and the patient care of field observation, are alike gone through with most accurately and painstakingly; while the resulting facts are weighed and assigned their due relative importance in a manner beyond criticism.

It is greatly to be regretted that circumstances did not permit the further pursuance of this work by the California State Fish and Game Commission, under the direction of Mr. Bryant, who has shown himself so well fitted for this line of investigation. In appearance, arrangement, etc., this paper leaves nothing to be desired, while the several excellent plates and text figures are well chosen and instructive.—H. S. SWARTH.

THE GANNET | a Bird with a History | by | J. H. GURNEY, F. Z. S. | Author of [two lines] | Illustrated with Numerous Photographs, Maps and | Drawings, and One Coloured Plate by Joseph Wolf | Witherby & Co. | 326 High Holborn, London | 1913 (our copy received November 25); frontispiece (colored distribution map), pp. li-567, 136 illustrations, unnumbered and chiefly in text, two colored. Publisher's price, 27/6 net.

The present tendency in ornithological study and literature towards concentrated attention upon single species cannot fail to gratify a very large proportion of our general scientific readers. It is not for a moment to be justly inferred that systematic, faunistic or morphologic lines of work are on the decline in importance, but that more nearly a balance of attention is being reached whereby the one-time threatened monopoly of the ornithological field by systematists and their literature is averted.

Of the several monographic treatises upon single bird species, which have appeared,