

seems to us that a cat which looked less like a ravenous lion and more like a demure pussy would better make us realize that it is not only the starving outcast which menaces our bird-life but also the purring feline by the hearthside.—H. W. GRINNELL.

OUR SHOREBIRDS AND THEIR FUTURE. BY WELLS W. COOKE, Assistant Biologist, Bureau of Biological Survey. [From Yearbook of Department of Agriculture for 1914, pp. 275-294, pls. 21-23, figs. 16-18.]

In this paper Professor Cooke sets forth accurately and forcibly the main facts and factors in the shorebird situation. The diminution which began to be noticeable in the seventies continued at an accelerated rate, owing to excessive shooting, until several once plentiful species were threatened with extermination, and one of them had actually become extinct. It is emphasized that this was the result of the poorest sort of business policy; for the sport value of our shorebirds is great, and with an approach to former numbers should amount to vastly more. The recently enacted Federal regulations give promise of relieving the stress put upon the birds by spring-shooting. But only time will show whether or not these regulations are sufficient to cause a definite return towards former numbers. A slight improvement is thought by some to be already apparent.

Of course, with such species as depended at one season or another upon territory now under close cultivation, no great revival can be expected. Thus the Upland Plover, Mountain Plover, and Long-billed Curlew have had their breeding grounds largely appropriated for wheat raising or dairying. On the other hand, the Wilson Snipe and Woodcock must rest their cases chiefly in the hands of the gunner, or rather, in the laws which govern the gunner; for there is yet plenty of land suited to summering and to wintering of these birds.

There could be no better illustration of the practical application of purely scientific knowledge, than in the present instance, where the proper treatment of a valuable National asset must rest upon the accumulation of facts in distribution and migration of birds. The worthy efforts of Professor Cooke and his co-workers in the United States Biological Survey to ascertain the facts of bird migration, and to solve the complex problems presented, have occupied years. Marked success has been achieved, enough of success to now warrant generalizations of great economic importance as well as of deep scientific value. But prob-

lems remain, and vastly more facts must be garnered; nothing must be allowed to interrupt the course of these painstaking investigations.

The paper here noticed can be had for the asking; and because of the interest attaching to its subject and the fascinating style in which this subject is treated, there is every reason why each Cooper Club member should possess himself of a copy,—and not only that, but profit by knowing every bit of its contents.—J. GRINNELL.

A DISTRIBUTIONAL LIST OF THE BIRDS OF CALIFORNIA, by JOSEPH GRINNELL. (Pacific Coast Avifauna Number 11. Published by the Cooper Ornithological Club, October 21, 1915. Pp. 1-217, 3 plates.)

Every student of California birds, whether the amateur, painstakingly groping toward an acquaintance with the commoner species, or the advanced specialist in search of accurate information, will acclaim the appearance of this publication as something greatly needed, and, as need hardly be said, exceptionally well done. Dr. Grinnell, both from his official position and personal predilection, has been in a peculiarly advantageous situation for the production of this work, the activities of the museum of which he is the head being largely directed toward the accumulation of data relating to the distribution of California animals, while as editor of *THE CONDOR* he is naturally in a favorable position for hearing of the discoveries of others.

The real need of such a distributional list is shown in the exhaustion of the edition of the same author's "Check-List of California Birds" (*Pacific Coast Avifauna* No. 3), for which, though out of print several years, there are inquiries constantly received at the Cooper Club's business office. The present publication is an amplification of the earlier "Check-List", covering no wider a scope, but treating the subject with an elaboration of detail justified by the great accumulation of data since acquired. It treats purely of the distribution of species within the state of California, other phases, of life history or systematic status, being ignored save as incidental to the elucidation of ranges.

Statements of distribution, more especially of land birds, are made largely in terms of "life zones" and "faunal areas", and the whole book, in the resulting conciseness of phrase and clear conveyance of ideas, is a striking justification, or rather exemplification, of the practical usefulness—the