

Yellow-breasted Chat (*Icteria virens*) in New Hampshire.—Mr. Charles F. Goodhue of Webster, N. H., kindly authorizes me to communicate the fact that he has in his collection a Yellow-breasted Chat (*Icteria virens*), that was picked up in West Concord, N. H., in 1909, about Sept. 6. I think no other specimen has been reported from this state.—FRANCIS BEACH WHITE, *Concord, N. H.*

Destruction of Birds in S. C.—A Correction.—In my note on this subject in the January 1924 'Auk' I unwittingly did injustice to Mr. Arthur T. Wayne by apparently ignoring the accounts which he had written of both the storm of 1893 ('Auk', 1894, p. 85) and the blizzard of 1899 ('Auk', 1899, p. 197). I was unfortunately not a reader of 'The Auk' at the time his accounts appeared and was unaware of them until after my note was published.—JOHN HENRY RICE, JR., *Wiggins, S. C.*



RECENT LITERATURE.

Grinnell and Storer on Animal Life in the Yosemite.—The latest contribution¹ from the Museum of Vertebrate Zoology of the University of California is a portly volume on the terrestrial vertebrates of the Yosemite by Dr. Joseph Grinnell and Mr. Tracy I. Storer, published by the University. The theme of the work, as the authors tell us "is natural history—that which relates to the living animal," while their aim has been to assemble their materials with every precaution to insure accuracy of fact and correctness of inference. No sacrifice of precision has been made consciously with the end merely of affording "attractive reading" but technical terms, where the same idea could be expressed in familiar words, have been avoided—i. e. "to present our science—perfectly good science, in straightforward, readable form." In this effort they seem to have been eminently successful and we have a volume which combines a useful description of field characters of each species with a detailed statement of its distribution in the Yosemite region and an account of its habits, etc., based on the observations of the museum corps. Naturally there is considerable difference in the length of these accounts, the commoner forms being much more exhaustively treated. The total number of species and subspecies noted in the region covered was 362—97 mammals, 231 birds, 22 reptiles and 12 amphibians.

¹*Animal Life in the Yosemite: An account of the Mammals, Birds, Reptiles and Amphibians in a Cross Section of the Sierra Nevada*, by Joseph Grinnell and Tracy Irwin Storer. Contribution from the Museum of Vertebrate Zoology, University of California (Seal) University of California Press, Berkeley, California, 1924. Pp. 1-xviii + 1-752, pls. 1-12 and 61-62 (maps) in colors; pls. 13-60 numbered as pages. April 17, 1924. Price bound in buckram \$7.50, carriage extra, weight 5 lbs. 9 oz.

The area covered forms a narrow rectangle about 89 x 17 miles or 1547 square miles reaching from the eastern margin of the San Joaquin valley to the western margin of the Great Basin constituting a typical cross section of the central Sierra Nevada, from 250 ft. elevation at Snelling, on the west, to 13,000 ft. on Mt. Lyall, including the celebrated Yosemite Valley but excluding the Mariposa Grove of Big Trees and the Hetch Hetchy Valley.

The field work upon which the report is based covered parts of 1914-1916 and 1919-1920 and no data obtained after December 31, 1920, are included. The field work covered 957 "man days" (one man in the field one day). The personnel included Joseph Grinnell, Tracey I. Storer, W. P. Taylor, Joseph Dixon, C. L. Camp, G. F. Ferris, C. D. Holliger, and D. D. MacLean. Two thousand pages of field notes, 4354 specimens and 700 photographs were obtained.

Needless to say this work forms a splendid record of the wild life of one of the best known of our national parks, a record made none too soon as the accounts of the extermination of several species show. Moreover while the botany and the general features of the Yosemite have been pretty thoroughly treated, practically nothing has hitherto been published upon its zoology. The book will therefore be most welcome to all who have visited or who contemplate visiting this natural wonderland.

It has, however, a much wider interest than that of a local zoology. The careful and entertaining accounts of the activities of the animals of the Yosemite constitute some of the most important contributions to their life histories that have appeared, while the introductory chapters on "Distribution," "Bird Censuses" and the "Interrelations of Living Things" contain information and discussion of more than ordinary importance.

Leaving the careful perusal of the accounts of the various animals, which make up the bulk of the text, to the fortunate possessors of the volume we may here comment briefly upon some of the points in the introductory chapters. Under "Distribution," besides mapping the region and showing graphically the range of each species, the authors contrast the easy western slope of the Sierra Nevada with the abrupt eastern declivity and bring out the fact that in the former there is room for the development of a separate representation of species in each zone while in the latter the zones are crowded together—"telescoped as it were," and are much more difficult to delimit, as peculiar admixtures and arrangements of species occur. At Walker Lake, for instance, the Canadian Zone occupies the cool shaded bed of a glacial groove with the Transition occurring on sun-facing exposures well above it. The authors here and elsewhere express their belief that the principal physical factor in zonation is not altitude, or moisture, or soil, *per se*, but temperature.

Besides the zonal delimitations the characteristic associations under each are mentioned and the further habitat divisions called "ecologic niches" are explained—such as the tree trunk, the small twiggy and the terminal foliage, each of which has its characteristic birds, or, as another example,

the arboreal and terrestrial chipmunks of identical zonal or associational range. All in all this chapter is as clear an exposition of the principles of geographic distribution as we remember to have read. The comparison of man, who can live under all sorts of physical conditions by changing his clothing and behaviour, with the animals and plants which cannot do this and are so vitally affected by conditions of temperature, moisture or food supply that they can maintain existence only within a relative narrow range of critical conditions, is most happy.

Discussing the interrelations of living things the authors set down opinions with which the reviewer is in hearty accord. "Forests afford the means of existence for a great number of animals" is their first offering followed "with some caution" by another: "Forests depend for their maintenance in the condition in which we observe them in this age of the world, upon the activities, severally and combined, of the animals which inhabit them." Then follow the opinions that it is the burrowing animals which make the ground suitable for plant growth; that it is the disintegration of vegetable matter—dead wood, bark, leaves, etc., by animals that helps to enrich the ground; that insect destroyers which protect five trees, like Woodpeckers and Chickadees, need dead tree trunks to nest in; that harmful as some insects may become it is of advantage to the forest that a continuous moderate supply of insects be maintained for the support of a standing army of insectivorous birds, which army will turn its attention to whatever insect plague happens suddenly to manifest itself. The authors would finally claim "a nice interdependence by which the insect and the bird; the bird and the tree; the tree and the insect all are under average circumstances mutually benefited." It would be well if those who are intent on burning up every dead tree and limb in our woodland and on effecting the extermination of what they often ignorantly call "vermin" would read and profit from this chapter.

The importance of the bird census is fully elaborated and the method employed by the authors is explained. Instead of making one count for a day's trip they make a separate count for each hour of a hike which can later be correlated with the character of country traversed.

But there is too much "meat" in this report to be covered in the small space at our disposal. It should be on the shelves of everyone interested in the study of wild life and should be read carefully as a model of its kind.

There are sixty plates, twelve in colors from paintings by Allan Brooks, the others in half-tone, and sixty-five figures in the text. Some of the birds and mammals are photographed from recently killed specimens but while these serve well to show contrasts of characters in a technical work they seem a little ghastly for a work the keynote of which is the study of the live animal.—W. S.