Gymnasio lawrencei exsul and Agelaius subniger from the Isle of Pines. Reguloides pulcher vegetus is described as new from western Szechwan, central China¹ while the Green Heron of the Maldives² is named Butorides albidulus.— W. S.

Zimmer's "Birds of the Thomas County Forest Reserve." — The region covered by this paper comprises the U. S. Government Forest Reserve in Thomas County, Nebraska, to which Mr. Zimmer and other Nebraska ornithologists have given much attention. There is presented first an ecological classification of the several 'habitats', the sandhills being regarded as Upper Sonoran while the Prairie is Carolinian. The birds characteristic of each region are mentioned, followed by a fully annotated list of 142 species. While the nomenclature follows the A. O. U. List in the main we note that the possessive 's' of all personal names is dropped as is the trinomial from the 'typical' race except where another form of the same species occurs in the area under consideration, — the latter a rather inconsistent practice. This however in no way detracts from the value of the paper which is a well conceived and well presented contribution to the ornithology of an interesting region.— W. S.

California Economic Ornithology.— In Game Bulletin No. 1 (1913) of the California Fish and Game Commissioners, is reprinted Mr. H. C. Bryant's paper on "The present and future status of the California Valley Quial." The bulletin also contains Mr. Bryant's report on his "Investigation of the Economic Status of Non-Game Birds." This article describes the purposes and methods of the investigation, and briefly reports on the economic status of the Western Meadowlark, Blackbirds, and the Lewis's Woodpecker.

Mr. Bryant's final report on "The Economic Value of the Western Meadowlark in California" appears as Bulletin 236 of the State Agricultural Experiment Station. The percentages of animal and vegetable food for the year are reported as approximately 60 and 40. The writer concludes that the balance is certainly in favor of the Meadowlark.—W. L. M.

Four Economic Papers by Professor W. E. Collinge.— The Bull-finch (*Pyrrhula europæa*) has an evil reputation as a destroyer of buds of fruit trees, and Professor Collinge confirms this opinion by the results of examination of the stomachs of 308 of these birds. He finds that "during the five months, January to May, the food consists largely of fruit-buds

<sup>&</sup>lt;sup>1</sup> A New Warbler from Western China. By Outram Bangs, Proc. Biol. Soc. Wash. XXVI, pp. 95–96. May 3, 1913.

<sup>&</sup>lt;sup>2</sup> The Green Heron of the Maldives. By Outram Bangs, Proc. Biol. Soc. Wash., XXVI, pp. 93-94, May 3, 1913.

<sup>&</sup>lt;sup>3</sup> Birds of the Thomas County Forest Reserve. By John T. Zimmer. Proc. Nebraska Ornith. Union, Vol. V, Part 5. April 14, 1913. pp. 51–104.

and fruitlets, and in addition to those which are actually eaten, an equal, or even larger, number are wantonly destroyed by this bird. I have watched it for hours on plum trees destroying the buds wholesale, and similarly on currants."

"My year's record fully confirms the view I had previously held, largely founded upon observations in the field, that the bullfinch is for quite half the year most destructive in fruit orchards, causing considerable losses to growers, which far outweigh any little good it may do in keeping down the spread of weeds. Indeed, its value in this respect is extremely doubtful, for it certainly helps in the distribution of such weeds as the dandelion, dock, groundsel, ragwort, charlock, etc.<sup>1</sup>

A report on "The Food of nestling birds," 2 gives the results of observations of parents feeding the young and of examination of stomachs of nestlings of the Starling, House Sparrow, Song Thrush and Blackbird. The writer's conclusions as to the nature of the diet and economic value of nestlings agree with those of Judd which he quotes.

The great need of study of the relations of British birds to agriculture is brought out in a paper entitled "The Economic Status of Birds." The writer shows that a bird, which by the nature of its food is beneficial, may on becoming abundant come to be regarded as injurious. This case is illustrated by the California Linnet and the Starling. A brief summary of the economic value of British birds, by families concludes the paper.

Professor Collinge's discussion of "The Destruction and Dispersal of Weed Seeds by Wild Birds" 4 shows that he is in sympathy with the view expressed by Mason in "The Food of Birds in India" which was reviewed in 'the Auk' for July, 1912, pp. 413–416. He says: "We cannot rely on weeds being kept down by birds, and the expense of cultivation to eliminate weeds is, I believe, not reduced in the slightest by the action of birds."

Professor Collinge notes the investigations of Beal, Judd, Kerner, Ridley and Darwin, on the distribution of seeds by birds, and contributes the results of some of his own experiments. 133 weeds of 7 species were grown from 54 droppings of the House Sparrow, 52 plants of 7 species from 38 droppings of the Greenfinch and 96 plants of 9 species from 50 of the Bullfinch. He concludes that seed-eating birds act as distributors of weed seeds to a much larger extent than is generally supposed. Taking this in connection with the evidence regarding the destruction of weeds, Professor Collinge states that he cannot regard seed-eating birds as beneficial.—W. L. M.

Henderson's The Practical Value of Birds. 5— This valuable little manual consists of tersely worded chapters on the Balance of Nature,

<sup>&</sup>lt;sup>1</sup> Journ. Economic Biol. Vol. VII, pt. 2, June, 1912, pp. 50-57.

<sup>&</sup>lt;sup>2</sup> Journ. Bd. Agr. Vol. XIX, No. 6, Sept. 1912. Reprint 6 pp.

<sup>&</sup>lt;sup>3</sup> Journ. Land Agent's Society, Oct., 1912. Reprint 5 pp.

<sup>4</sup> Journ. Bd. Agr. Vol. XX, No. 1, April, 1913. Reprint 12 pp.

<sup>&</sup>lt;sup>5</sup> Univ. of Colo. Bulletin Vol. XIII, No. 4, April, 1913, 48 pp.