

Quarles, E. A. American Pheasant Breeding and Shooting. American Game Protective Assoc., 1916, 136 pp.

Simpson, 'Gene M. Pheasant Farming. Corvallis, Ore., 1927, 96 pp.—W. L. M.

**Encouraging Bird Enemies of Orchard Insects.**—Mr. T. T. Odell reports<sup>1</sup> upon attempts to increase the number of birds in pear orchards near Geneva, N. Y., as a means of control of the pear psylla. The experiment was largely a failure as the only birds responding to efforts to increase them were Flickers and Bluebirds, neither of which were found to feed upon the pear psylla. The birds feeding most freely on the pest, namely, the Chickadee, Golden-crowned Kinglet, and Red-breasted Nuthatch, could not be induced to nest in the orchards, during the period of this experiment.

The Myrtle Warbler, and White-breasted Nuthatch also were found to feed upon the pear psylla. No fewer than 200 psyllas were found in the contents of a single stomach of the Chickadee, and 150 in that of a Kinglet. Data are presented on 15 stomachs representing 11 species of birds, and notes are given on pellets of a pair of Screech Owls that wintered and nested in the orchard. Birds were rather prominent among the food items. In spite of discouraging results to date the author believes that if proper methods are used over a period of years worth while results can be accomplished. The Geneva Agricultural Experiment Station hopes to continue the work.—W. L. M.

**Barros on Food of Chilean Birds.**—In a four page leaflet<sup>2</sup> the author calls attention to the economic importance of birds and to the desirability of investigations of them in his region. He presents also observations on bird food based on examinations of a few stomachs each of five species, namely, *Egretta thula*, *Nothoprocta perdicaria*, *Podiceps americanus*, *Podiceps caliparoeus*, and *Aechmophorus major*.—W. L. M.

**Economic Ornithology in Recent Entomological Publications.**—Several entries under this head are here presented for the interest they have for ornithologists. Cane Grubs.—H. E. Box like other investigators of the subject gives credit<sup>3</sup> to bird enemies of these pests of sugar cane which cause an annual loss of three million dollars to cane growers of Porto Rico. He gives special credit to Blackbirds (*Holoquistus lugubris*) and strongly advocates the planting of more royal palms "as the crowns of these trees are the favorite nesting sites for blackbirds, and it is believed that an increase in the number of palms will in time lead to the augmentation of the numbers of these useful birds."

<sup>1</sup> The Food of Orchard Birds with special reference to the Pear Psylla, Bul. 549, N. Y. (Geneva) Agr. Exp. Sta., 19 pp., 2 pls., 3 figs., Dec. 1927.

<sup>2</sup> Barros, Rafael, Apuntes Para el Estudio de la alimentacion de las aves de Chile, Rev. Chilena Hist. Nat., 31, 1927, pp. 262-265.

<sup>3</sup> Journ. Dept. Agr. Porto Rico, 9, No. 4, October 1925, pp. 310-311.

Satin moth (*Stilpnotia salicis*).—This is another addition to our already long list of insect pests introduced from the palaearctic region. Here, as there, it is a special pest of willows and poplars, and it is established in this country in four New England States and in Washington State. Although a newcomer it has been proved acceptable as food to native birds. The authors A. F. Burgess and S. S. Crossman in a recent bulletin<sup>1</sup> on the pest state that: "Birds undoubtedly consume many larvae of the satin moth. Mosher made some special studies to determine the relationship of birds to the satin moth and recorded the following species as feeding on them: Black-billed Cuckoo, *Coccyzus erythrophthalmus*; Oriole, *Icterus galbula*; Blue Jay, *Cyanocitta cristata cristata*; Starling, *Sturnus vulgaris*, and Catbird, *Dumetella carolinensis*. On numerous occasions the junior author has noted Blue Jays and Starlings apparently picking the small satin moth larvae from their hibernating webs on heavily infested poplar trees. Western Robins and Bats have been reported as feeding on the satin moth at New Westminster, British Columbia."

Pine Lappet (*Dendrolimus spectabilis*).—This is the most destructive pest of pine forests in Japan. In a study<sup>2</sup> of its bird enemies the author refers to Escherich's work (*Zeitschr. f. angew. Ent.*, 2, 1915, p. 429) on avian predators on *Dendrolimus pini* in Europe, and to previous Japanese records of bird foes. These latter concern *Pica pica sericea*, *Passer montana saturatus*, and *Parus major minor*. By studies of stomach contents Kojima finds the last named species and *Aegithalos caudatus trivirgatus* to be important foes, and *Chloris sinica minor* a lesser enemy, of the pest.

*Lygus elisus*.—This abundant plant bug has become a real pest in the western cotton areas. In discussing<sup>3</sup> it, E. A. McGregor pays some attention to natural enemies. He quotes from Biological Survey records to the effect that 26 species of birds are known to feed upon plant bugs of the genus *Lygus* among which Swifts and Nighthawks appear to take these insects in largest numbers.

Cotton stainers (*Dysdercus* spp.).—J. G. Myers presents a useful review<sup>4</sup> of the records of bird and other enemies of cotton stainers. Although these insects figure frequently in the literature of economic entomology, it was not as pests, but as bearers of "warning coloration" that Myers was investigating them. Myers assembles records of nine kinds of birds preying upon cotton stainers, and of 3 species feeding upon other bugs of the same family. The utility of the "warning coloration" of these insects is not stressed, and seems questionable in view of the number of known enemies among various groups of vertebrates and invertebrates.

Fall Army Worm (*Laphygma frugiperda*).—This is not only a seriously destructive feeder upon cereal and forage crops, but is a particularly

<sup>1</sup> U. S. Dept. Agr. Bul. 1469, 1927, p. 15.

<sup>2</sup> Kojima, Toshibumi, Notes on some birds feeding on the pine lappet, *Dendrolimus spectabilis* Butler, Proc. Imp. Acad. [Japan], 3, pp. 291-295, May 1927.

<sup>3</sup> Tech. Bul. 4, U. S. Dept. Agr., July 1927, 14 pp., 7 figs.

<sup>4</sup> Ann. Ent. Soc. Am. 20, No. 3, Sept. 1927, p. 294.

interesting species in that it frequently disperses, breeds, and does injury throughout a great part of the United States, although it is a permanent resident only in the warmest parts of the southern states. Philip Luginbill, author of a comprehensive bulletin<sup>1</sup> on the insect gives a list of 13 species of U. S. birds known to feed upon the pest, and notes that the English Sparrow has several times been observed to eradicate local infestations. Bird enemies of the fall army worm in Porto Rico, the Virgin Islands, and San Salvador also are mentioned (pp. 87-88).

Pale western cutworm (*Porosagrotis orthogonia*).—This is a serious pest of grain crops in the northwest which feeds under-ground and is very difficult to combat. Observations on an effective bird enemy are given<sup>2</sup> as follows by C. N. Ainslie: "Among the birds of this region the Horned Lark, *Otocoris alpestris*, is the most active enemy of the cutworm. A wheat field near Mott, N. D., was dotted with small mounds of earth thrown up by this bird while digging out the cutworms, the outer skin having been evidently stripped off and eaten. The birds were still busy in this field and the process of digging out and eating the worms was repeatedly observed."—W. L. M.

#### The Ornithological Journals.

**Bird-Lore.** XXX, No. 4. July-August, 1928.

Bonaventure's Gannets. By Claude W. Leister.

A Transatlantic Passage of Lapwings. By H. F. Witherby.—Reprinted from 'British Birds.'

The Migration and Plumage articles cover the Sapsuckers, with a color plate by Sutton. Dr. A. A. Allen has an excellent illustrated story of the Goldfinch.

**The Condor.** XXX, No. 4. July-August, 1928.

Saving the Parrakeets. By C. T. Metzger.—Calls attention to the rapid decrease of many Australian species and suggests the breeding of them in other parts of the world.

The Plumage of the Pine Siskin. By T. T. and E. B. McCabe.—An elaborate study of the molt from live birds handled in the process of banding. Several bird banding papers have recently dealt with the molt and few of the authors make any reference to Dr. Dwight's 'Sequence of Plumages and Molts of the Passerine Birds of New York,' our leading authority on the subject. It would not be a bad idea if some of the bird banding journals were to publish a list of papers and books that bird banders should read. Such knowledge would render their work more important and they would be better informed as to the problems still unsolved. Dr. Grinnell's comment on p. 256 is in line with our remarks and covers others beside bird banders.

<sup>1</sup> Tech. Bul. 34, U. S. Dept. Agr., Feb. 1928, 91 p., 49 figs.

<sup>2</sup> Can. Ent., vol. LX, No. 7, July 1928, p. 161.