the dry summers of 1930 and 1931. W. B. Noble reports[1] upon them and says something of interest about birds. "Natural enemies," he states, "play a rather important part in the control of webworms. Birds were particularly active in this respect during the summer of 1931. Blackbirds, Flickers, Robins, and Starlings were attracted to the infested areas in large numbers and ate many of the larvae" (p. 2). In addition to the birds named by Noble, Crows, the Crested Mynah, English Sparrow, and Savannah Sparrow are known, according to Biological Survey records, to feed on the larvae, and the Nighthawk and Roadrunner upon adults of Crambinae. Entomological literature contains a number of references to birds eating moths and larvae of this group, scanning of which adds the following species to those already listed, Bobwhite, Kingbird, Wood Pewee, Red-winged Blackbird, Meadowlark, and Barn Swallow.

Abaca slug caterpillar (*Thosea sinensis*).—This larva a serious enemy of coconut and abaca in the Philippines "is a thorned species of poisonous character" of a group supposed by theorists to be avoided by birds. Pedro Sison, however, in a comprehensive report[2] on the insect says, "The Crows prey upon the larvae by picking them up with their bills and squeezing out the soft content. The thorny skin or skeleton is not swallowed. As many as fifty of them are to be seen in a flock working every day from morning until late in the afternoon. They never leave the field until only a few of the larvae are left." (p. 179).

Elder borer (*Achatodes zeae*).—This insect sometimes forsakes elder to damage corn but is not especially destructive. In making studies of the borer, J. C. Silver found "The Northern Downy Woodpecker x x x attacking young elder shoots in search of x x x [the] larvae. x x x Several clumps of elder in various localities showed distinct signs of attack by birds" (p. 18).[3] The bird work is illustrated.—W. L. M.

Lid on Food of Taimyr Ptarmigans.[4]—This is a very detailed account of crop contents of three Ptarmigans (*Lagopus mutus*) from a remote locality on Taimyr peninsula in northernmost Siberia. This time the food items, consisting entirely of vegetable matter, chiefly leaves and stems of willows and saxifrages, were weighed when dry, counted, measured, and tabulated. No percentages are given. For comparison, literature dealing with the food of Ptarmigans from other northern localities is referred to.—LEON KELSO.

Manuel on Food of the Philippine Weaverbird.—Canuto G. Manuel, educated in part at the University of Michigan, where he carried on food-habits research, is now fortunately able to do similar work in his native country. The report[5] here reviewed is one of the first fruits of his efforts. The methods of study of the Philippine Weaver, a rice pest, are described in some detail and the results given by localities. In about half of the study Manuel used the ordinary volumetric system of stomach analysis and in the remainder adopted a numerical method. He checked the latter,

[1] U. S. Dept. Agr. Circ. 248, Sod Webworms and Their Control in Lawns and Golf Greens, 4 pp., Nov. 1932.

[2] The Slug Caterpillar on Abaca (*Thosea sinensis* Wlk.), Its Life History and Habits as observed in Davao, and suggestions for Control, Phil. Journ. Agr. 3(3), 1932, pp. 163–187, Pls. 1–6.

[3] U. S. Dept. Agr. Tech. Bul. 345, Biology and Morphology of the Spindle Worm, or Elder Borer, 19 pp., 9 figs., Feb. 1933.

[4] Crop Contents of Ptarmigans from Taimyr. By Johannes Lid. The Norwegian North Polar Expedition with the "Maud" 1918–1925, Scientific Results, Vol. V, No. 2, September 20, 1933. Pp. 3–7.

[5] Observations on the Philippine Weaver, Munia jagori Martens, II: Foods and Feeding Habits, Phil. Journ. Sci. 53(4), April 1934, pp. 393–418, 1 fig. (map), 2 tables.