

## PUBLICATIONS REVIEWED

FOOD HABITS OF SOME WINTER BIRD VISITANTS. By Ira N. Gabrielson. Department Bulletin No. 1294, United States Department of Agriculture, pp. 1-32. Washington, D. C., October 27, 1924.

This recent bulletin deals primarily with the winter food habits of ten species of our so-called "winter visitants", all *Fringillidae*, viz., the Evening Grosbeak, Pine Grosbeak, Red Crossbill, White-winged Crossbill, Hoary Redpoll, Pine Siskin, Snow Bunting, Lapland Longspur and Smith Longspur. In order that the account of the food of the longspurs might be as complete as possible, Mr. Gabrielson also treats of the food of the Chestnut-collared and McCown Longspurs in this bulletin, although the data presented covers the winter months but slightly in the case of the Chestnut-collared Longspur and not at all in the case of the McCown Longspur. The bulletin is concluded with a discussion of the food of the common pipit and the Sprague Pipit, the former species being treated quite completely from the standpoint of the entire year.

Mr. Gabrielson terms the first seven of the ten species above mentioned the "woodland group", and points out that the evidence shows that a large part of their winter food consists of the seeds or buds of trees and shrubs, and indicates that these birds do neither any decided good nor harm, unless possibly they do some slight injury through their bud-eating propensities. The snow bunting and the longspurs he calls "prairie-feeding species", with grass and weeds forming the bulk of their diet. Mr. Gabrielson quite logically states that these seed-eaters may not, as is commonly thought, accomplish much real economic service in the matter of weed suppression on uncultivated ground, under the usual conditions obtaining in such places, because with all of their feeding on these seeds a great many more weeds are yet likely to sprout and grow than can possibly mature. What follows is that a comparatively few survivors smother their weaker competitors, and such ground produces each year about the same maximum of weeds that the physical conditions of the environment will permit, regardless of the work of the seed-eating birds.

In the light of this information, we should probably be somewhat more conservative in our statements as to the great value of the seed-eating birds to agriculture, and not give the impression that weed seed destruction by birds is necessarily an untold benefit to the farmer by telling how many weed seeds the birds may eat for breakfast on a single farm or how many tons of weed seeds a single species of sparrow will destroy in one state during the winter. While such statements may be intrinsically true, they are yet misleading, and are not necessary to secure an entirely favorable judgment on the value of our bird life. Mr. Gabrielson absolves the species discussed in this bulletin from responsibility for the spread of weeds through undigested seeds still capable of germination passing through the digestive tract, and concludes that while they do little or no good economically they are likewise not harmful, and should not be molested.

The bulletin is well illustrated by five full half-tone plates, four of them new illustrations from drawings by R. J. Sim, and the fifth a plate of the common pipit from a drawing by Fuertes. Unfortunately for the appearance of the bulletin, the first plate, showing the male Pine Grosbeak and Evening Grosbeak, had the explanatory legend reversing the correct arrangement of the figures, which

error had to be corrected by a red overstamp. The other plates represent the males of the two crossbills, the common redpoll and Pine Siskin and the Snow Bunting and Lapland Longspur. The figure of the latter bird is represented by a male in full breeding plumage—a dress in which it is not often seen over most of the United States—which makes it somewhat out of harmony with the figure of the Snow Bunting above it, which is in typical winter plumage, as well as unharmonious with the title and general purport of the bulletin.

In this bulletin Mr. Gabrielson has carefully collected the more important scattered published references to the food habits of the several species he deals with, and, supplementing this information with data obtained from an analysis of the contents of a usually adequate number of stomachs, has produced a very valuable report on an interesting group of birds.—M. H. S.

PROGRESS ON CO-OPERATIVE QUAIL INVESTIGATION: 1924. By Herbert L. Stoddard.

Privately published by the Quail Study Fund for Southern Georgia and Northern Florida. Pp. 1-22. 1925.

This is a report of progress on the study of the life-history, food habits, and and general ecological relations of the Bobwhite. The chief purpose of the investigation is to determine the causes of the decrease in numbers of this game bird, in order that remedial measures may be applied. A fund of \$30,000 has been underwritten by a group of interested men, so that the work may be carried on for a period of not less than three years. While the motive behind the enterprise is obviously a desire to increase the quail supply for shooting purposes, yet the plans for the work promise to yield most valuable information concerning the life-history of this species.

The investigation was inaugurated on March 17, 1924, and will, doubtless, be carried on during the three years planned, at least. Mr. H. L. Stoddard is in charge, and is assisted by Charles O. Handley. The area at the disposal of the investigators comprise something over 200,000 acres of typical quail country, lying on both sides of the boundary line between Georgia and Florida.

The methods so far employed are mapping of areas, field study of habits, examination of stomach contents, trapping and banding of the birds. Blind study has also given some results. A very novel device designated as a "clap-net" has been used in capturing coveys of the birds.

An article by Mr. Stoddard covering almost the same ground appears in the January Bulletin of the American Game Protective Association for January, entitled, "The Co-operative Bobwhite Quail Investigation."

One of the most important Bobwhite problems, both from biological and conservation viewpoints, is the question of inbreeding and outbreeding as it may affect vitality and virility. Is there a natural tendency toward inbreeding and does this result in degeneration? With banding as a means of individual identification it should be possible to determine to what extent inbreeding is practiced by this species, and whether it is harmful or beneficial. The answer to the question may have a most important bearing on the whole problem of quail conservation.—T. C. S.