

stomachs of 1,154 Horned Larks collected in all parts of the United States and southern Canada. It was found that insects constituted 20.6 per cent., and vegetable matter, six-sevenths of which consisted of weeds, was 79.4 per cent. They occasionally eat grain, but this is far outweighed by their destruction of weed seeds and insects, and the destruction of such birds is criminal as affecting conservation.

Everyone appreciates the utility of the titmice and chickadees as insect destroyers, but few regard the hawks and owls in their proper light. Such species as the Sharp-shinned and Cooper Hawks and the Great Horned Owl are certainly inimical to farmers, but the majority of hawks and owls are either wholly or partially beneficial. Of those which are wholly beneficial, common, and destroyed on almost every occasion, one might mention the American Sparrow Hawk (*Falco spawerius* L.) which feeds chiefly upon grasshoppers and also destroys such noxious rodents as gophers and field mice. One of the best gopher and grasshopper destroying hawks is Swainson's Hawk (*Buteo swainsoni*) common on the prairies of the West. Merriam records three whose stomachs were examined and found to contain no other food but grasshoppers; one contained 88, another 96, and the third 156.

These facts, a few of a very large number which might be quoted, indicate the practical value of such birds and the importance of not only protecting them but encouraging them. In forests this is specially desirable, and it will be necessary for us to pay far greater attention to this aspect of forestry in the future than is the case at the present time. We shall be well advised to follow the guidance of those European countries who regard the encouragement of birds by the provision of nest boxes as an essential element in forestry systems. In good forests there is little natural provision for the nesting of birds, and accordingly these must be supplied. Many instances might be quoted of the success of these measures in controlling insect attacks, but a single one must suffice. Baron von Berlepsch, the greatest European advocate of bird encouragement, gives the following example: The Hainich wood, south of Eisenach, which covers several square miles, was stripped entirely bare, in the spring of 1905, by the caterpillars of a little moth (*Tortrix viridana*). His wood, in which there had long been nest boxes, and of which there are now more than 2,000, was untouched. It actually stood out among the remaining woods like a green oasis. At a distance of a little more than a quarter of a mile farther the first traces of the plague were apparent, and at the same distance farther on still it was in full force. It was a plain proof of the distance the tits and their companions had gone during the