

their habit of not leaving food nearby. Thus, unless one kills the birds and examines their stomachs, it is necessary to rely almost wholly upon the disgorged pellets overlooked by the parents, which unfortunately are practically absent during the early stages of the existence of the young. Details of pellets examined in 1917 are:

July 2—14 pellets collected beneath the nest of a pair of young; two made up of feathers and weed seeds from one or more vesper sparrows; four containing hair of voles and mice and odd bones of these rodents; the remaining pellets containing ground squirrel hair and a few bones chiefly of the striped species, *Citellus tridecemlineata*; a few aspen leaves were also present.

July 10—Six pellets beneath the nest of a single nestling, chiefly made up of vole hair and with three sets of teeth of these animals, also bones and feathers of a young crow. Pellets from another nest taken on the same day, five in all, showed a few bird feathers, parts of two voles, much hair of the same rodents, ground squirrel hair and three tail tips of Franklin's ground squirrel.

July 31—Three pellets gathered containing hair and bones of ground squirrels, the former of *C. richardsoni* and *franklinii*. Odd bones and a tail of the last species were also located upon the ground. The young hawk had left this nest about ten days. Another nest from which the young had departed was examined on October 5; it contained broken pellets consisting of ground squirrel hair and bones.

These studies, as was mentioned above, relate to a single season's observations. Similar studies, covering a number of years show little variation in the kind of food consumed. The situation of the hunting grounds naturally influences the results inasmuch as these are apt to be frequented by a greater number of animals of one species in one place and another kind elsewhere. A shortage of some particular animal, such as ground squirrels, will have to be made up by the collecting of some other such as mice or birds, all of which have to be taken into consideration before we can arrive at a true knowledge of any hawk's food habits.

With regard to the relation of Red-tailed hawks to poultry, I have yet to learn of a single instance of these hawks having attacked poultry of any kind, though it is not at all an uncommon event to find them nesting within a few hundred yards of barnyards and poultry runs. Such is the evidence brought out by this investigation. The destruction of a few sparrows may be used against the hawks. The killing of a vastly greater number of noxious rodents leaves a large balance in the bird's favour. We can, therefore, come to but one conclusion, namely, that it is not only a friend to the farmer but also a useful ally as a conservator of our food supply.