

beech trees; . . . most of the nests contained two young each. We found three nests in different years that contained only one bird each, but never found the eggs until this year."

During the past winter Goshawks have occurred in unusual numbers in southern Pennsylvania and New Jersey, where they are generally very rare. — WITMER STONE, *Academy of Natural Sciences, Philadelphia, Pa.*

Peculiar Nest of the Great Horned Owl.—While returning from a short walk in the woods during a recent afternoon (March 14), I found a nest of *Bubo virginianus* which was quite remarkable. I had left the woodland and was crossing a meadow; in this there stood perhaps a half dozen elms and maples, none of them over six or eight inches in diameter at the base, the nearest timberland being three hundred yards away, across a creek. In one of the largest maples there was an old nest of the Crow, only twenty-four feet from the ground; this was occupied by a pair of Owls and one of the parent birds was upon the nest. Repeated heavy blows upon the trunk did not effect her flight; she remained until I shook a sapling which brushed the nest with its tips. Ascending, I found three eggs; in and about the nest were sixteen field mice, a hind leg of a rabbit and a wing of a Downy Woodpecker. There was also in a tree at no great distance the half-eaten body of a Pinnated Grouse. Upon preparation of the eggs I found them addled; incubation, which was equal in all, had advanced for three or five days, when the process had stopped, probably through the eggs becoming chilled. Evidently the bird had continued to set upon the eggs for a week thereafter. —FRANK H. SHOEMAKER, *Hampton, Iowa.*

Disgorgement among Song birds.—Here in the cultivated parts of Southern California, there have been planted very extensively for shade and ornament, the beautiful ever-green pepper-trees. These trees bear a red berry in pendant clusters which mature on the trees throughout the whole year. Large flocks of western Robins and Cedar-birds are attracted into town during the winter months, and feed largely on these pepper-berries. The trees are constantly full of the birds, the habits of which I have had ample opportunity of observing.

The pepper-berries are somewhat smaller than sweet-pea seeds, and of a spherical shape. They are composed of three parts; a thin dry paper-like outer hull; a solid central part, and on the outside of the latter but not touching the external husk, a sticky viscid coating. The central kernel is very hard, and moreover when chewed has a most penetrating disagreeable taste which does not leave the mouth for a long time. When held in the mouth without being touched by the teeth, however, the viscid coat is dissolved in the saliva, and proves to be very sweet and agreeable to the taste. This sweet portion is the nutritive part of the fruit which is sought by the birds.

The birds rapidly swallow these berries in large numbers, including the hulls, which are easily crushed, until the stomach is crammed. They

then repair to some convenient roost, and there remain for ten to fifteen minutes. The juices of the stomach dissolve the sweet coating of the berry and then the kernels, together with the broken husks, are *disgorged*. The ground under a favorite roosting place of the Cedar-birds or Robins is frequently nearly covered with these disgorged kernels and one can see the seeds rattle down as each bird gets rid of two or three at a time.

In my back yard there is a shed under some high eucalyptus trees which appear to be the common rendezvous of several flocks of these birds which feed in the neighborhood. The pattering of the pepper seeds as they fall on the shed-roof is incessant all day long, and the ground is brown with them. I have often watched Robins and Mockingbirds at close range, and I noted that during the process of disgorgement the birds for a moment appeared to be in distress, and after two or three spasmodic coughs and a side-wise jerk of the head, out would come two or three of the kernels. All the birds which eat the pepper-berries have the same habit, and with the Mockingbirds, Western Robins, Cedar-birds and Phainopeplas, the peppers seem to be a very important food-supply. Besides these birds, I have seen the Townsend's Solitaire and Varied Thrush in the act of disgorging.

It is only within the last 12 or 15 years that the pepper-trees have been so abundantly planted in Southern California, and the fact that the birds in so short a time have acquired such an unusual habit, to conform with a new kind of food, seems to me very significant. Possibly this habit of disgorgement has been a common practice wherever the character of the food requires it, but it was new to me. Some one can probably throw more light on the subject.—JOSEPH GRINNELL, *Pasadena, Cal.*

An Unusual Song of the Red-winged Blackbird.—In the first week of May last, I happened on a company of Red-winged Blackbirds, in full play of their courting hour. The males among them were, of course, as tuneful and as actively engaged in the cutting of capers as is their wont, at such times.

But on this occasion it was more interesting to notice that the females, ordinarily so very demure, were showing themselves to be not a whit the less animated by the spirit of the play. And very amusing indeed it was to watch these comedians in sober brown, but in extemporized ruffs, puffs and puckers, pirouette, bow and posture, and thus quite out-do in airs and graces their black-coated gallants. Their shrill whistle, the meantime continually vied with, or replied to, the hoarse challenges of their admirers, while in noisy chattering, and in teasing notes, they were excessively voluble.

Whilst loitering thus entertained my ear had been attracted by repetitions of a strain which came from the dense foliage of a nearby pine. In meter it was the same as the *coke-al-lee-e-e* of the shoulder-strapped members of the company. It was, however, pitched in a higher key, wholly free from gutturals, nor did it contain any sound that could be