

Under these conditions each individual cormorant receives from three-fourths of a pound to a pound of fish per day, given at one feeding, and for six days in the week. On Sunday the birds receive no food. On this allowance they thrive and live in perfect health for years.

As birds at freedom are more active, they may require somewhat more food though I am inclined to doubt that they eat on the average much more than the amount indicated for our captives. The Florida Cormorant is possibly slightly less in bulk than *Phalacrocorax ater* and *P. fuscescens* discussed by Mr. Mattingly so that his statement that these may eat one and one-half pounds of fish per day seems sufficiently large.—A. WETMORE, *U. S. National Museum, Washington, D. C., July 28, 1927.*

**The Rufous-necked Sandpiper in Alaska.**—In my note upon the occurrence of *Pisobia ruficollis* at St. Paul, Pribilof Islands (CONDOR, XXIX, 1927, p. 200), an injustice is done Mr. Alfred M. Bailey in omitting to state that he had already placed the species upon a firm basis as a North American bird, an injustice for which I wish to make such amends as I can. Bailey's records of occurrence at points on the Alaska mainland, as reported first in the CONDOR for 1924 (XXVI, p. 195), and elaborated in a later issue of the same magazine (XXVIII, 1926, p. 32), are as final proof as could be asked for, and I had no intention of questioning them, even by inference. My main interest in the Pribilof Island occurrence lay in correcting the previous erroneous identification of the specimen concerned, and Bailey's account of the species had for the moment slipped from my memory.—H. S. SWARTH, *California Academy of Sciences, San Francisco, California, August 19, 1927.*

**The Barn Owl in its Relation to the Rodent Population at Berkeley, California**—During June of 1926, the writer, in walking to his home on Haste Street from the Museum of Vertebrate Zoology, between the hours of 10 and 12 P. M., almost nightly heard Barn Owls in the tower of the First Presbyterian Church, located at Dana Street and Channing Way. With the idea of comparing the food of these owls, that roosted well within the thickly built residential district of Berkeley, with that of certain other Barn Owls that were under observation (see Foster, CONDOR, XXVIII, 1926, p. 130, and XXIX, 1927, p. 246), and that roosted far from any human habitation, Professor G. L. Foster and the writer gained entrance to the church tower early in July, 1926, and found there, beneath the perches of two adult and five nearly grown young Barn Owls (*Tyto alba pratincola*), a large accumulation of regurgitated pellets. A number of the more complete pellets were selected from this accumulation and later examined, with the following results as to food items identified:

Kind of Animal	Number of Individuals
California Shrew ( <i>Sorex californicus californicus</i> ).....	1
California Pocket Gopher ( <i>Thomomys bottae bottae</i> ).....	84
California Pocket Mouse ( <i>Perognathus californicus californicus</i> ).....	4
Long-tailed Harvest Mouse ( <i>Reithrodontomys megalotis longicaudus</i> )..	26
White-footed mice ( <i>Peromyscus</i> sp.).....	52
California Meadow Mouse ( <i>Microtus californicus californicus</i> ).....	276
Norway Rat ( <i>Rattus norvegicus</i> ).....	2
House Mouse ( <i>Mus musculus</i> subsp.).....	37
Brush Rabbit ( <i>Sylvilagus bachmani</i> subsp.)..... (half-grown young)	2
Santa Cruz Song Sparrow ( <i>Melospiza melodia santaecrucis</i> ).....	1
Jerusalem Cricket ( <i>Stenopalmatus</i> sp.).....	3

As compared with Professor Foster's findings (*loc. cit.*) it may be noted that in each case California Meadow Mice constituted more than 50 percent of the total number of individuals accounted for. California Pocket Gophers rank second, in number of individuals represented, in pellets from the church tower (perhaps due to our having picked up the larger, more intact pellets), but white-footed mice hold second place in the remains from Wild Cat Canyon. The greater number of species represented at Wild Cat Canyon probably is explained by the law of averages, since Professor Foster identified 1780 individual animals, and only 484 were secured from the church tower. The greater number of House Mice found in the church tower is hard to explain. Whether or not House Mice are more abundant near the city than

farther from it, in such a place as Wild Cat Canyon, I do not know. Finding of the Santa Cruz Song Sparrow is worthy of note because no bird remains were found in the pellets from Wild Cat Canyon.

The nature of the food of the Barn Owls living in the church tower indicates that they fed in the Berkeley Hills to the eastward. At his home at 300 Panoramic Way, which is at the eastern margin of the residential district and well up on the west side of the Berkeley Hills, the writer has heard as many as seventeen Barn Owls pass over, or near, his house on a summer's evening. All these birds were flying east or west, never, so far as noted, north or south, thus suggesting that they were birds making trips between their foraging-grounds in the hills and their young at roosts in the city. Indeed, on two occasions, a Barn Owl was seen carrying some mammal of pocket gopher size westward down the hill. These facts and knowledge of the existence of several occupied roosts of Barn Owls in buildings on or near the University of California Campus argues the existence of a large local population of these birds. Probably these owls are less seriously molested by man than those in the open territory outside the city limits; for these latter, as on occasion the writer has seen, provide irresistible targets for hunters. Taking account of the large area in the East Bay region that is built up and that provides shelter and nesting sites for this concentrated population of Barn Owls, it is conceivable that the rodent population in the Berkeley Hills, especially in the territory immediately adjacent to the eastern city limits, would be appreciably reduced by the foraging activities of these birds.

It is a fact that meadow mice are fewer along the eastern city limits than farther east. Near the crest of the Berkeley Hills, from one to one and one-half miles east of the city limits of Berkeley, counts of individuals of California Meadow Mice, seen per hour of walking during afternoons and evenings, indicate a population three times as dense as similar counts indicate to exist at most places within one-half mile of the city limits where Barn Owls frequently have been seen foraging. It is not, of course, known that Barn Owls alone are responsible for the lesser number of mice in the area mentioned; in fact, it is inferred that they alone are not responsible. For one thing, cats are more numerous about the city limits than one or two miles outside, and they feed partly on mice. Nevertheless, the Barn Owls constitute one of the conspicuous factors limiting the mouse population.

Just what human values attach to this interrelation, I am not certain; but the utilitarian-minded will infer that this belt, with a relatively small meadow mouse population along the city limits, functions as a protection to the well-watered, green lawns in the city. These lawns the meadow mice would seriously damage during the dry season, if a sufficient population could exist in proximity to them. Thus a possible conclusion is that, in Berkeley, a sufficient population of Barn Owls is one factor in maintaining attractive lawns!—E. RAYMOND HALL, *Museum of Vertebrate Zoology, University of California, Berkeley, California, September 8, 1927.*

**Notes from the Three Barkerville Banding Stations.**—The banding stations of this promising group, described by Mr. McCabe in the July, 1927, number of *THE CONDOR*, already have furnished some notes worthy of record.

Under date of May 5, 1927, Mr. J. D. Cochran writes: "The condition of the spring birds in this locality may be of interest. During April 16, 17 and 18 we experienced a bad storm, the thermometer dropping to two below zero. The Game Warden reported many dead birds along his route, though we found only two near our feeding station; perhaps this was due to the fact that we fed very heavily and did no trapping for banding during the storm. In both cases the bird found dead was empty of crop and very poor, apparently having just arrived. Birds banded previous to the storm had some difficulty with the ice and snow balling up on the band; however, I discovered no ill results from it.

"During the ten years in which we have afforded the birds a feeding station we have never before seen such a variety in attendance. Although the spring is late, according to our records dating back ten years, the birds are arriving at their usual time. So far we have banded 100 Gray-crowned Leucostictes, besides a number of Gambel Sparrows, Song Sparrows and a few other birds."

Writing on June 8, 1927, Mr. T. T. McCabe says that during the month following their return from California, April 7 to May 7, Mrs. McCabe and he banded about 1100