

In the Chicago area there are now no English Sparrows in the heart of the city, where I have crossed part of the "Loop" twice a day for much of the past seven years, on my way to and from the Museum. There are sparrows on adjacent Michigan Avenue with its park, and there are sparrows on the city's south side, where the buildings are spaced out and there are trees and bits of gardens. But I've seen none in the downtown business section. Presumably they used to be there in abundance, feeding on the refuse from the horses that moved so much of the city's traffic at an earlier period.

It is not that there is no food available in the "Loop," for Domestic Pigeons (*Columba livia*) thrive there. About the La Salle Station there is often a flock of more than 100 pigeons, and probably several hundred of them live within two or three blocks of the station. These get their food in part from grain put out for them by bird-lovers; in part from cadging peanuts from passengers on the elevated train stations, and in part from foraging for scraps along the streets and amongst the garbage in the alleys. But evidently what is satisfactory for the pigeons is not for the sparrows.

In the Chicago area I know the sparrow populations are denser in the suburbs and out-lying towns, but densest about the stock farms where hogs are being fed on special, ground-grain food. In the summer the sparrows spread out, some even visit the picnic areas on the Lake Michigan shores; in late summer the grain fields attract them in numbers. But in winter they withdraw to the human communities, to farm buildings, and most of all to farms where hogs are fed. At such hog-feeding places I've seen flocks of hundreds on a winter afternoon.

Some ecology textbooks correlated densities of House Sparrow populations at an earlier period directly with the density of human population, though they might have more pertinently correlated it with the density of the populations of the domestic horse. Fisher has already pointed out that the House Sparrow is not so much a parasite of man as an associate of domestic beasts, especially of horses, and Hausman (1946. "Field Book of Eastern Birds," p. 544) gives its habitat as the edge of cities, etc., especially where chaff, chicken feed, and similar foods are available.

The correlation of population densities is probably best put somewhat as follows: English Sparrow densities correlate directly with the densities of certain domestic animals, the species varying from time to time and from place to place. Earlier the densest sparrow populations were correlated with the densest populations of horses; presently they are correlated in the Chicago area with the densest hog populations, while in New Jersey they seem to be coincident with the densest domestic fowl populations. Perhaps in other areas, other correlations will emerge.—A. L. RAND, *Chicago Natural History Museum, Chicago 5, Illinois, May 5, 1955.*

Behavior of a Ring-necked Pheasant on a Prairie Chicken booming ground.—A thorough review of galliform hybrids was compiled by Peterle (1951. *Wilson Bull.*, 63:219), who pointed out the importance of similar habitat and behavior in hybridization. Lincoln (1950. *Wilson Bull.*, 62:210) reported a hybrid between the Ring-necked Pheasant (*Phasianus colchicus*) and Prairie Chicken (*Tympanuchus cupido*), but he offered no theories as to how it might have occurred. In May, 1954, I had occasion to observe how hybridization between these species might possibly occur in the field. The opportunity was afforded while I was in a blind, observing Prairie Chickens on a booming ground in Section 20, T23N, R5W, Missaukee County, Michigan. The surrounding area either is under cultivation or is grazed by sheep or cattle. There is a fairly dense pheasant population in the area.

I was in the blind on May 12 at 4:30 a.m. The weather was cloudy and foggy,

the temperature about 37°F. The Prairie Chickens began flying in at approximately 5:00 a.m., and immediately started booming and displaying. There were eight males and one female on the ground.

At 6:00 a.m. I heard a pheasant crow about one-quarter mile south of the blind. At 6:25 a.m. the pheasant was crowing 75 yards south of the blind. During the next five minutes, the pheasant walked into the midst of the displaying Prairie Chickens. Suddenly, it ran toward one of the males, which flew off about 50 yards. The pheasant flew after it immediately. The Prairie Chicken again took flight, with the pheasant still in pursuit. The pheasant alighted about one-quarter mile away, but the Prairie Chicken flew a few hundred yards farther. For a few minutes, the pheasant crowed in this area; then started slowly walking back toward the booming ground. At 6:45 a.m., the Prairie Chicken returned to the booming ground; a few minutes later the pheasant was back among the Prairie Chickens. The pheasant then ran after another male Prairie Chicken, which ran a short distance and then flew off. The pheasant flew after him for about 25 yards, alighted, and again returned to the booming ground.

Finally, a third Prairie Chicken was singled out, and the performance was repeated, after which the pheasant walked off about 30 yards, and at 7:00 a.m., flew toward the point from which it was originally heard.

One might theorize that the cock pheasant was merely intent on driving away possible rivals for his harem. On the other hand, he might have mistaken these relatively drab birds for female pheasants, after being attracted to the area by the dancing activity. In either case, if a receptive female had been "selected," the hen might possibly have submitted to copulation and *Phasianus-Tympanuchus* hybrids could have resulted.—ELSWORTH M. HARGER, *Michigan Department of Conservation, The Heights, Michigan, June 3, 1955.*

Altitudinal records for Chimney Swifts.—Mr. Paul Farren, a former student of mine who pilots airplanes in attending to his work as a geophysicist, has given me records of Chimney Swifts (*Chaetura pelagica*) seen at high altitudes. The records are especially interesting because they are accompanied by precise meteorological data. The first of these records was so unusual in Mr. Farren's experience that he called to tell me about it. I asked him to keep me informed of other such observations; but it was more than three years before he reported to me again. At this time he wrote: "I average 3,500 miles per month air travel and frequently fly in the vicinity of 7,000 feet; so you can readily estimate how many miles I have traveled between sightings of these birds." Data on the three observations follow:

1. April 30, 1951, at 2:30 p.m., over Lufkin, Texas; altitude 7,300 feet; ground 325 feet above sea level. Two Chimney Swifts seen together, and then one about 10 miles farther on. A south to southeast wind blowing 25 to 30 m.p.h. at the ground and at the altitude of the plane; ground temperature 75°F.; a strong cold front about 150 to 200 miles to the west; light scattered clouds with bases at 4,000 feet and tops at 6,000 feet. The birds were flying above the clouds. Mr. Farren said: "I had never before seen birds at such a height."

2. May 18, 1954, at 4:30 p.m., over Refugio, Texas; altitude 7,000 feet; ground 80 feet above sea level. A single Chimney Swift "which struggled with considerable alarm and finally avoided my plane." Southeast wind 15 to 20 m.p.h. at the surface; variable winds 7 to 10 m.p.h. at the altitude of the plane; ground temperature 83°F.; squall line from the northwest about 50 miles distant, and a cold front coming in from the north, with rainy weather; an overcast of stratus clouds at 8,000 to 12,000 feet.