farther south in the same stream I spent considerable time the next day looking for shorebirds but saw none. This was not near any town. These birds have often been seen in large numbers along the Portage River where it runs through the village of Elmore and along the Maumee River in Antwerp, which is not far from the Ohio-Indiana line.

Microörganisms of several kinds thrive in sewage. They are fed upon by other tiny creatures, and these in turn by those still larger. After a number of such transformations the material probably becomes a part of the molluscs, crustacea, and aquatic insects that are attractive to birds.—E. L. MOSELEY, *Bowling Green, Ohio.*

A Note on Highway Mortality.—While driving from Princeton, New Jersey, to Flagstaff, Arizona, on June 8-14, 1938, the writers made a count of bird mortality on the highways. Our results may be thus summarized:

Native birds (50 species)	268	48.90%
English Sparrow (*Passer domesticus*)	235	42.88
Chicken (*Gallus gallus*) and Pigeon (*Columba livia*)	19	3.47
Starling (*Sturnus vulgaris*) and Pheasant (*Phasianus colchicus*)	3	.55
Unidentified birds	23	4.20
Total	548	100.00%

Our route was through southern Pennsylvania to Washington, Pa., then on U. S. Route 40 to St. Louis and U. S. Route 66 from there to Flagstaff. After subtracting night driving, a count of dead birds was made over 2,195 miles, of which 867 were east and 1,328 west of the Mississippi River. Over this distance we found an average of one bird every 2.68 miles east, and one every 5.93 miles west of the river, or an average of one bird per four miles for the trip. English Sparrows were divided 164 east to 71 west, and native birds 133 east to 135 west of the Mississippi.

The number of birds found over considerable distances west of the river was undoubtedly much reduced by heavy rains and wind. In Arizona, where favorable conditions for counting obtained, 29 native birds (7 species) were counted in 155 miles, contrasting with 28 native birds (9 species) from the 210 miles driven in Ohio. Such comparisons, of course, are significant, if at all, only for species frequently killed by automobiles.

The following native birds were detected in greatest numbers: Lark (*Otocoris alpestris*), 32 (23 in Texas); Grackle (*Quiscalus quiscula*) 32; Robin (*Turdus migratorius*), 28; Nighthawk (*Chordeiles minor*), 20 (14 in Arizona); Shrike (*Lanius ludovicianus*), 15 (12 in New Mexico and Arizona); Meadowlark, two species, probably, (*Sturnella*), 13; Brown Thrasher (*Toxostoma rufum*), 11; Screech Owl (*Otus asio*), 11; Mourning Dove (*Zenaidura carolinenses*), 10.

Although automobiles may occasionally strike almost any species of bird, we were surprised to find the following victims: Wood Duck (*Aix sponsa*), adult ♀ near Hazelgrove, Missouri; Chimney Swift (*Chaetura pelagica*), one at Edmond, Oklahoma; White-throated Swift (*Aeronautes s. saxatalis*), one west of Grant, New Mexico. An Eastern Kingbird (*Tyrannus tyrannus*) picked up June 14 twenty miles west of Holbrook, Navajo County, is apparently the first Arizona specimen of this bird (by four days!). The skin is in the collection of the Museum of Northern Arizona at Flagstaff.

Remarks. Most birds killed by automobiles are, as would be expected, of common, widely distributed species. In regions of heavy automobile density, however, it seems likely that appreciable decreases in the local population of a few vulnerable species, such as the Screech Owl, may result from highway mortality.

Dr. J. M. Linsdale (*Condor*, 1929, pp. 143-145) and others have emphasized the important and complex influence of roads upon birds. Although the benefits to bird-life are frequently more important than the toll taken by automobiles, every effort should be made to reduce this heavy and ever-increasing destruction. With the exception of a few areas having a heavy population of soil-loving species such as the Nighthawk and Horned Lark, the writers found it evident that along highways where roadside vegetation was scanty or had been removed, the number of dead birds was always low. For this reason we believe that on highways where traffic is continuous and rapid, such activities as tend to discourage immediate roadside concentrations of birds, and to make approaching vehicles more visible, should be encouraged by conservationists. The maintenance of a strip of gravel two or three yards wide on each side of the pavement is one such measure that seems to be particularly effective.—HENRY N. RUSSELL, JR., *Princeton, New Jersey,* and DEAN AMADON, *American Museum of Natural History, New York, N. Y.*

Carrier Pigeon with Blue-winged Teal.—For a number of years The Duck Island Club has maintained a very complete record of the kill of waterfowl on its preserve along the Illinois River between Pekin and Havana. There are a number of interesting marginal notes in its record books, of which the following seems to show another curious fate of Carrier Pigeons which do not return to their cotes.

> October 5th Wednesday 1921 at the hour of about 2:30 PM D. W. Voorhees Sr of Peoria Ills. was shooting ducks from a blind in the upriver end of Pond Lilly Lake when he Mr. Voorhees & his guide Clark Fuller of Banner, Ills. sighted what was as they suppose 4 blue winged teal approaching high up *from the north* over the big timber. As the 4 birds came nearer all flying in a line, we discovered the 3rd bird from the front was different from the other 3. Mr. Voorhees shot the front teal duck & dropped back & killed the 3rd bird. On Clark Fuller's picking up the 2 birds it was discovered that the 2nd bird killed was a large male *carrier pigeon.* On the pigeon's right leg standing behind it is an *aluminum* band bearing the stamp (viz.) AJ21E7523. On the left leg was a *brass band* on which (inside) is the number 4553. Its crop was very plentifully filled with "soy beans". The pigeon was heavy and apparently well nourished. Opinion only: the pigeon had been started on a home flight became lost & taken up companionship with the 3 blue winged teal. We examined the crop of the blue winged teal killed while in company with the carrier pigeon & found the teal's crop contained the same kind of "soy beans" as that contained in the pigeon's crop. We expect to advertise the above numbers in the sporting paper & try & locate the owner.
>
> Signed D. W. Voorhees
> Clark Fuller
> 10/5/21
>
> Mr. Voorhees has in his possession the legs & bands described & will gladly exhibit them to anyone interested: the feed being the same in the teal's and pigeon's crop shows conclusively they had been feeding together.

—RALPH E. YEATTER and DAVID H. THOMPSON, *Illinois Natural History Survey, Urbana, Ill.*