

COMPARATIVE RESULTS OF BIRD BANDING IN A
LARGE CITY AND A SMALL TOWN.

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It would hardly be expected that bird banding in a large city like Chicago would be productive of extensive results when compared with similar results obtained in a small town like West Lafayette. Our results have been contrary to expectations and present some very interesting comparisons.

The results here discussed cover a period of exactly four years, from Dec. 1, 1924 to Nov. 30, 1928. The Chicago station is at 4620 Greenwood Avenue, in the heart of a residential district and half a block from a business street. The West Lafayette station is on the outskirts of the town at 511 Russell Street and nearly a mile from any business district with the Purdue Campus between. All captures included have been made in our back yards except for a few, mostly young birds, taken within the block. The two back yards are of approximately the same area, about 5,000 sq. ft., and each has some shrubbery and a few trees. The Chicago yard has the most shrubbery but the trees are all small, while in the West Lafayette yard there are five large trees. One of these is a wild cherry while the Chicago yard has a mulberry. Each yard has a bird bath and the amount and kind of natural food likely to attract birds is approximately the same. The number and types of traps used are similar as is also the bait used.

The chief differences lie in the surrounding environments. The Chicago station is in a thickly settled district with no vacant lots in the block and few, if any, shade trees on the street. It is half a mile from the lake, a mile from Washington Park and two miles from Jackson Park. Before this section was built up there was a spring within 100 yards of the station and a small stream flowed away from this spring which may have had some influence on this as a route of migration.

At West Lafayette there is a vacant lot on each side of the station and many shade trees along the street in front. At the back of the lot, to the west, is open country stretching away to a woods nearly a mile distant, while a quarter of a mile to the northwest is a small wood lot. The field immediately west is under cultivation; alfalfa, corn and oats having been the crops during the past four years. The neighbors' pet cats are rather numerous about both stations.

The banding in Chicago is confined almost entirely to April, May and early June and September, October and early November, while at West Lafayette some birds are banded every month in the year though

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the number is small in February and November. Appended is a list of all birds banded at the two stations with a summary of the results. The captures are listed for spring and fall of each year, spring being considered from January 1 to June 30 and fall from July 1 to December 31. Under repeats and returns are listed the individuals for which repeats and returns are recorded and not the total numbers of captures. Under totals for West Lafayette the numbers marked (*) include birds banded in December, 1924, which are not included elsewhere in the table. No birds were banded in Chicago during this period.

It is interesting to note that while the total list contains 52 species there were exactly 38 species banded at each station. While the total number of species is exactly the same, more individuals were banded at West Lafayette than at Chicago, the former number being 975 and the latter 758. The West Lafayette figures do not include about 100 chimney swifts caught on the Purdue Campus and some other species, mostly young birds, banded elsewhere in the neighborhood. In all there are 16 families represented, 14 in the West Lafayette list and 12 in the Chicago list. In both lists, as might be expected, Fringillidae leads with 13 species for West Lafayette and 12 for Chicago. At Chicago Mniotiltidae comes second with 7 species but only one at West Lafayette. Turdidae is next with six species at Chicago and five at West Lafayette. Icteridae is represented by four species at West Lafayette and only one at Chicago.

In both lists the total spring captures considerably exceed those for fall, though in 1927 the fall captures exceed the spring in Chicago. In only four species do the total taken in the fall exceed those taken in the spring at each station. At West Lafayette the bluejays are exactly the same for both seasons, and robins are in excess in the fall in 1928.

Examining the totals further it is seen that at Chicago two species only exceeded 50 individuals, one being white-throated sparrows the highest on the list, while the West Lafayette list has four species of more than 50 individuals, the lowest of which has 80.

The great difference in the numbers of certain species banded at the two stations is remarkable. For example, bronzed grackles which lead in the number of captures for West Lafayette at 302 are entirely absent from the Chicago list though the bird is quite common in the parks and is frequently seen near the station. Doves and tree sparrows are two other prominent birds on the list which are entirely wanting in Chicago. On the other hand, fox sparrow with 51 bandings stands second on the Chicago list and is entirely absent from the West Lafayette list though they are fairly common in the region during migrations and there seems no reason why they should not come to the station. Towhee is also absent from this list though common in the region. More remarkable is the large number of white-throated sparrows banded in Chicago, 403, as compared with the 31 banded at West Lafayette. Why these birds should be caught in such abundance at one station and not at the other seems strange for they are always abundant in the vicinity of West Lafayette during migrations. This species is one of the few

showing a noticeably larger number banded in the fall than in the spring at both stations. Decidedly more than half of the Chicago captures are white-throated sparrows. The woodland species seems to predominate at Chicago and those of the open country at West Lafayette.

One of the most outstanding differences is the comparatively large number of repeats at Chicago and the large number of returns at West Lafayette. Over 22 per cent of the Chicago banded individuals repeated one or more times 99 of the 403 white-throated sparrows repeating, one as many as 77 times, being caught every day from Sept. 22 to Oct. 22, 1928. At West Lafayette the individuals repeating are less than 12 per cent of the total captures, and the highest number of repeats for an individual is 11 for a bronzed grackle.

On the other hand, the returns at West Lafayette are 84 or 8.6 per cent of all individuals banded, a number returning more than one year, while Chicago shows less than .5 per cent with only four individuals. Two of the latter were robins, one being found dead in Chicago and the other at Galveston, Texas. At the Chicago station returns are recorded for only three species, as follows: bluejay, brown thrasher and robins, while at West Lafayette there are returns for 15 species out of the 38 banded.

In summarizing, while the number of species banded is the same at each station the individuals are about one-fourth greater at West Lafayette where the residents number nine against three for Chicago. The transient birds which do not nest, number 16 at Chicago and 10 at West Lafayette.

Chicago shows a larger number of species for which only one capture each is recorded.

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Chicago 38 species

West Lafayette 38 species

