

that penned quail and chickens fed sublethal doses of these insecticides in their diets suffered high reproductive failure. Both hatchability and survival of young were low as a result of the insecticides being transferred through the egg and to the young birds. The presence of large numbers of dead and dying insects on the treated area also presented an opportunity for turkeys to obtain the poison in a secondary manner. Both young and old wild turkeys feed heavily upon insects during the spring and summer. Conceivably they could have eaten enough of these contaminated insects to have produced secondary poisoning.

Though there is evidence that some adult turkeys survived the period of the insecticide treatment, the scarcity of turkeys of all ages following the treatment indicates that some adults succumbed also. Recently (March, 1959), skeletons of some mature birds have been found on the area. It is believed, however, that a reproductive failure of almost 100% did occur in the wild turkey population of the test area in the spring and summer following the treatments.

Though this report is not intended as final or conclusive, it is hoped that it will aid in suggesting possible avenues of approach in research on similar areas.

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Auburn, Alabama  
April 1, 1959

## DISPERSION OF LITTLE BLUE HERONS FROM A POND IN MACON COUNTY, ALABAMA

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The Little Blue Heron, *Florida caerulea*, nests in a number of colonies in Alabama. One located about three miles south of Tuskegee, in Macon County, has been of interest to the writer since the summer of 1952.

The colony located its nests in the alder and willow trees growing in the upper end of one of two adjacent ponds known locally as the "Hog Wallow Ponds." The adults dispersed quite widely each day hunting food, so the effects of the colony were widespread.

It was almost a pure colony of Little Blue Herons. A few Great Blue Herons, Common Egrets, and Wood Ibises were occasionally seen, but did not nest there. A few Green Herons did nest there and a Black-crowned Night Heron nested nearby. Besides the herons, Red-winged Blackbirds were abundant; Mourning Doves and Orchard Orioles nested in the trees among the herons.

Nests of the Little Blue Herons varied greatly in number during the period of study and their position changed as ecological succession took place in the community. At the beginning of the study a long peninsula of alder bushes extended into the pond for several hundred feet. As the study progressed, the alders in the water died and became undesirable nesting sites. At the base of the peninsula the alders spread out along the shore and became merged with larger willow trees. The shore trees and bushes gradually became the more choice nesting places. As ecological succession removed the alders from the more choice nesting position, the population of herons became reduced. No nesting was done in the spring of 1958 because a so-called sporting club got the idea that they were damaging the fishing and shot and scared away the birds.

One of the outstanding parts of the study of this community was the dispersion of young. In order to study dispersion, it was necessary to band the young birds so that they could be identified when later recovered. Number six bands, obtained from the USDI, Fish and Wildlife Service, were used. They were placed on the legs of the nestlings varying from the age of about three weeks until after they had just left the nest.

The very young birds were easy to band but the older birds were hard to catch. Use of a large wire hook on a pole, a method learned from James E. Keeler, made possible the catching of the birds by the neck and easily retrieving them, without harming them.

The nesting season started with the arrival of the birds in March. By May the young were old enough to be banded. Nesting continued so that frequently there were birds that could be banded until late July. The peak of nesting was early and mid-May and early June was the best period for banding. After that the number of birds of banding size was so reduced and the weather became so hot that it was not worthwhile to band.

It was necessary to band as many young as possible, because the percentage of returns from banding is small. Table 1 shows the number that were banded during the study.

Since these herons are moderately large birds and slow fliers, they are tempting, though illegal, targets. Fortunately, for this sort of a study only, a number is shot each year. When the gunman sees a band on the leg of the bird he curiously removes it, and fortunately many bands are returned to the Fish and Wildlife Service. The F. W. S. informs both collector and bander the banding and collection data. Thus the bander is able to study dispersion.

From the 1162 birds banded, there were 16 returns, about 1.4 per cent of those banded. Of these 16 herons, 11 were returned before the following nesting season, 2 were returned from the first year after nesting, 2 from the second year after, and 1 from the third year. The laws of probability act strangely in banding as in other endeavors, 11 of the 16 recoveries were from the 394 birds banded on May 27, 1955, and from the other 768 birds banded at other times only 5 returns resulted.

The dispersion of the Little Blue Herons was in all directions from the nesting site. As soon as the young can fly well, they start wandering first to nearby ponds and fields to feed, and then frequently wander quite far northward before their fall migration south.

Table 2, shows the dispersion of this colony in a clockwise pattern around Tuskegee, Alabama. The young heron which traveled the 2050 miles to Trinidad made the longest journey. The one going to Bahia Honda, Cuba, showed the greatest longevity. Whether

any of the banded birds returned to this pond to nest is not known. The writer examined many of the adults, by using binoculars, but never saw any banded birds.

The dispersion of the Little Blue Herons from this nesting site was an interesting study. The results became quite impressive when it was realized how widely the birds disperse and how great an area receives birds from one nesting site. It also makes one wonder how the destruction of such a nesting site will effect the population of herons over a large area.

Auburn, Alabama  
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Table 1. The banding dates, numbers banded, and numbers of returns.

Banding Date	Number Banded	Total Banded Per Year	Number of Returns
June 4, '53	25	----	0
June 12	59	84	1
May 20, '55	221	----	2
May 27	394	615	11
May 14, '56	266	----	2
June 23, '56	57	323	0
May 16, '57	140	140	0
Totals	1162	1162	16

Table 2. Dispersion of the Little Blue Herons from their Macon County nesting site.

Locality of Collection	Miles Distant	Banding Date	Collection Date
Rising Fawn, Ga.	180	June 12, '53	Aug. 17, '53
Etowah, Tenn.	240	May 27, '55	July 2, '55
Auburn, Ala.	30	May 20, '55	Aug. 10, '55
Columbus, Ga.	60	May 14, '56	Aug. 25, '56
Eastman, Ga.	160	May 14, '56	June 19, '56
San Juan, P. R.	1500	May 27, '55	Oct. 31, '55
Trinidad, B.W.I.	2050	May 27, '55	Oct. 23, '55
Great Inagua	1070	May 27, '55	Mar. 9, '56
Pregonero, Venezuela	1750	May 27, '55	Dec. 16, '55
Bahia Honda, Cuba	700	May 27, '55	Feb. 13, '58
Comayagua, Honduras	1275	May 27, '55	Jan. 29, '56
Summit, Miss.	300	May 20, '55	Mar. 24, '57
Harpersville, Miss.	230	May 27, '55	July 7, '55
Philadelphia, Miss.	210	May 27, '55	Aug. 12, '55
Selma, Ala.	80	May 27, '55	June 30, '57