

Summary of Bird Banding  
Wesley H. Bartlett

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As early as 1803 Audubon was beginning the practise of placing silver wires on the legs of Phoebes. The following season two of the individuals he had banded returned to the same vicinity to nest. Scientific banding was first carried on by a Danish schoolmaster, H. Chr. G. Mortensen, in the year 1899. His work was done chiefly with storks, teals, starlings and two or three species of birds of prey. The American Bird Banding Association organized in December of 1909 with the thought in mind to act as a central point for the work, thus giving a center at which to report the results of banding so that all banders might have access to the work of others. The Linnaean Society of New York aided in this work. The Migratory Bird Treaty Act was passed by Congress July 3, 1918, and in 1920 the Biological Survey took over the work of the American Bird Banding Association.

According to the latest available data we find bird banding actively carried on in seventeen countries and in North America. The following data outlines the grouping of stations in America according to the number of birds

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banded as summarized from the work of the fiscal year ending June 30, 1934.

64	stations	banded	over 1000	individuals	159,438
13	stations	banded	800--1000	individuals	11,700
19	stations	banded	500--800	individuals	12,350
55	stations	banded	300--500	individuals	22,000
46	stations	banded	200--300	individuals	11,500
<u>100</u>	stations	banded	100--200	individuals	<u>15,000</u>
297	stations	banded	over 100	birds totaled	231,988

In addition to this there were 1,577 stations banding less than 100 birds each with a total of 131,917. This brought the total to 363,905 individuals for the year--thirty six per cent of this total number being banded by the stations banding less than 100 birds during the year. The grand total of birds banded since the Biological Survey took charge of the work in 1920 until June 30, 1936 was 2,181,150 individuals and 135,953 return reports.

For the small station operator the permit issued gives authority to band only migratory, non game birds, For special studies and special work, chiefly in larger stations, the permit issued gives authority to band all migratory birds. The Biological Survey has set up a few qualifications for the cooperator to meet. He must be at least eighteen years of age. He must be able to identify the species in his vicinity, and should have access to a good volume with key for identifying rare species. Of course care in

operating traps and handling of birds is of great importance. Promiscuous banding of fledglings is not approved by the Survey. During the past few years there has been a limitation of funds and because of the great expense in the work no new stations are being started unless they fit in with the work of other stations in nearby territory, or if applicant has in mind the conducting of a research program which would be achieved to a greater extent through the banding of bird life. Applications for permits or information on the starting of a station should be secured from Chief, Bureau of Biological Survey, United States Department of Agriculture, Washington D. C.

The trapping-station operators may aid in solving many problems in relation to birds. The problem of migration of birds is still one of outstanding importance. What are the arriving and departing dates of a species? Is the same route followed in successive seasons? The study of the territory of birds can present such problems as: What is the range limit during breeding, winter, and other seasons? What are the territorial limits about the nest, and do birds defend this territory? Parasites and diseases may be studied by observation of birds caught in traps. By keeping return records, the length of life of different species may be studied. The personalities of birds, raising such questions as: Do individual birds have peculiarities in appearance, habits, and manners?, may be partially solved through banding

activities. Weights and measurements of birds may be taken which will aid in making more definite statements as to the size of the species. Mating activities, plumage, ecological preferences, and other problems relating to bird life may be solved, at least partially. In the study of birds and problems relating to them we must remember that banded birds are individuals and should be studied as such. Many must be observed to draw conclusions of a species.

The report of the year's work of each station operator is due in the office of the Survey on June 30th of each year. A special blank is supplied the cooperators for filling in a report of banding activities. Each bird banded is placed on a sheet for that species and all sheets are sent in for the stations report. Of course the operator must keep a copy of all his work in order to secure all necessary data on returns and birds meeting death. A "return" is any bird captured three months or more after being banded. It may be a bird banded at the same or at another station. Birds meeting death are also reported as return records. These "return" records are filled in on a special type card which is to be reported immediately. The term "repeat" is used to designate a short-time return of a live bird to the original station, and is used to indicate recoveries of banded birds that have apparently not been absent from the neighborhood since the time they were last handled. Repeat records may very well be kept in a card file system. These repeats are so

numerous that they are no longer reported to the survey, but the record should be kept by the operator in order that he may better solve problems of ornithologists in his vicinity.

The drudgery of a banding station has its rewards in the unexpected thrills which break the monotony of the catches. Usually the thrill consists of a return from a previous year, but if it is an extra-special thrill, one may have a "Foreign" return, as the birds banded at some other banding station are called. Then too, there is the thrill of receiving a postcard announcing that one of "your" birds has been trapped or killed elsewhere. Individual returns also are often very interesting. One Cardinal returned at least once a year during five consecutive years. A Junco which was banded in 1931 wearing normal plumage, was recaptured in 1932 and was at this time mottled with large spots of white. In 1934 it was again recaptured, still mottled, but in 1935 the plumage of the bird was again normal. It was also noticed that this bird was much larger than the average Junco. Smaller thrills come sometimes from the numerous repeats. Some birds seem to develop what has been called the "trap habit", and repeat often. Individuals have been captured, released, and recaptured in another trap farther down the trap line within fifteen minutes after the first capture. Then there are the migrating birds which remain about the station for a lengthy visit. One

Song Sparrow repeated forty seven times in forty nine consecutive days.

Foreign returns here have been entirely limited to Chimney Swifts. We have captured eight Chimney Swifts that have been banded elsewhere--seven of them by Musselman of Quincy, Illinois. A number of Swifts which we banded have been recaptured elsewhere--two in Minnesota, one in Tennessee, and one in Louisiana. A Junco was captured at Martin, North Dakota two weeks after it was banded here. Two Red-tailed Hawks were banded as fledglings from a nest in a tall tree on Decoration Day, 1934. Exactly six months later one of them was shot at Cuero, Texas.

Baits used are commercial chickfeeds, cracked corn, and suet. Other types of grain, fruits, vegetables, salt, minerals, and insects attract birds very well. The type of trap known as the "Government Sparrow Trap" has proven the most satisfactory of all traps tried. A false-bottom and a funnel-entrance tray type have also given good results.

In operating a station the cooperator must attempt to maintain safety for the birds. This necessitates much work in attempting to keep the region in the vicinity of the traps free from dogs, cats, and small mammals which might kill birds, and to prevent hunting and trespassing by man, if possible. Snakes sometimes kill a few birds for food. Some of the birds which might be listed as occasionally detrimental to the trapped birds are shrikes, crows, English sparrows,

starlings and some birds of prey. We must remember, however, that all these birds do not always destroy, and are also doing much good. We must take great care and thought before we kill such individuals, and must also remember that the species as a whole probably is not detrimental. The station operator must do his part in releasing birds in as perfect condition as possible by having traps which will in no way injure the bird, and when banding he must handle the bird with care.

One phase of the zoological work carried on at Parsons has thrown a little light on the fate of some of the banded birds. For about three years Owl pellets have been collected in the vicinity of the station and elsewhere, for the purpose of studying the food habits of owls in this region. From a group of Barred Owl pellets the band of a Junco was recovered. The following year pellets yielded up the bands of three Blue Jays and five Bob-Whites. Thus it might appear that an owl in the area of a banding station is a menace to the birds, but this is not actually the case. The Bob-Whites were taken during a blizzard period when there was a particularly heavy concentration of Bob-Whites in the Park. Fifty four individual Bob-Whites were caught within a week in the few acres of woodland where they had taken refuge from the surrounding fields. The study of the food habits of the owls in the territory has shown that they are considerably more beneficial than harmful. As an example, permit me



to cite the case of one Long-eared Owl which resided in the cemetery near the banding station from December, 1933 to March, 1934. During that time all pellets from this owl were collected and the contained bones identified. The results, when totaled, showed that during the approximately three-month-long period, this one owl had eaten 355 destructive field mice and shrews, and had taken, in the same period, only three birds---and one of these was an English sparrow.

During the past banding year at Parsons a total of twenty four species has been banded. Probably those of most interest are the Migrant Shrike, Grinnell's Water Thrush, Wood Thrush, and Lincoln Sparrow. The Slate Colored Junco leads with a total of 291 individuals, while the Chimney Swift plays a close second with 251 individuals, while the Bob-whites numbered fifty five individuals banded. Most of the other species banded numbered less than twenty five. A total of 790 individuals has been banded during this banding year up to April 1st. Banded birds meeting death during this year have numbered eight. Returns numbered sixteen, all of which were banded here previously.

The past winter was extremely hard on banding activities almost ceased. Had this period not been lost the banding might have brought some interesting winter results. At present thirteen traps of five types are in operation.

Since the opening of the station in 1931, 5136 individuals of sixty three species have been banded. From the

chimney - top sub-station 2482 Chimney Swifts have been banded. The Slate-colored Junco is second in line, with 985 individuals banded, and the White-throated Sparrow is third with 441.

Some interesting high spots of the years of banding are: the Coot that mistook the Library lawn for a body of water, was captured, banded, deloused, measured and weighed before being released; the Cormorant which flew into an automobile headlight and after having been banded was released to be shot at Dallas City, Illinois, a month later; a seemingly healthy and thriving Downy Woodpecker with only one leg; another downy which laid an egg in the woodpecker trap; a Golden-crowned Kinglet so tangled in Beggar's-Lice that it was picked up, unable to fly; a Brown Thrasher captured and banded three weeks after the "last" migrating Thrasher had been seen; and the House Wren that was rescued from a cat and found to be a return from the previous year.

## Bibliography

- Bird Banding Notes---Issued by the Bureau of Biol. Survey  
U.S. Dept. Agr. Vol.2 No.12 June 1935  
Page 190
- Bird Banding Notes---Issued by the Bureau of Biol. Survey  
U.S. Dept. Agr. Vol2 No.13 August 1935  
Pages 193-194
- Bird Banding Notes---Issued by the Bureau of Biol. Survey  
U.S. Dept. Agr. Vol2 No 14 August 1936  
Pages 219-223
- Lincoln Fredrick C. and Baldwin S. Prentiss---Manual for  
Bird Banders--U.S. Dept. Agr. Miscel.  
Pages 1-12;100-109
- Stevens O.A.---The Distribution of the Bird Banding Stations  
reprint form "Bird Banding" Vol.VI No.1  
January 1935
- Wildlife Research and management Leaflet BS-53 U.S. Dept. Agr.  
Bureau of Biol. Survey April 1936  
Pages 1-3