

TEN YEARS OF BANDING BLACK-CAPPED CHICKADEES

By Ruth A. Löf

This year I have completed ten years of banding, having started in the spring of 1957 to assist Dr. Franklin McCamey in his special study of Black-capped Chickadees. I refer to "Survival and Age Structure of the Black-capped Chickadee", unpublished Ph.D. dissertation, University of Connecticut, 1962, by F. McCamey. Since I have had a rather consistent population of chickadees, I became interested in continuing my observations after Dr. McCamey finished his study.

My area has been just my own property. It is a semi-rural area surrounded by several acres of second-growth deciduous woodland, mixed with a few pine and hemlock. Abutting one side is a ten-acre cultivated field. Encircling the partially open yard adjacent to our home are many natural shrubs and low-growing bushes: blueberry, alderberry, honeysuckle, viburnums, sumac, bayberry, and laurel, among others.

For the past ten years my banding operations have been quite constant and consistent for nine months out of the year. I do not band between June 15 and September 15. Most of my chickadees scatter into the woods around June 1st. They visit my feeders quite regularly during nest-building and incubation, but scatter when the young are fledged. I attempt to get all my chickadees banded before the beginning of the next breeding season. Most of my young birds are banded during the year they are hatched, between September 15 and December 31. There may be a few which are banded during the early part of the next year.

With the exception of one unusual influx of chickadees which seemed to pass through, my local population is very sedentary. There is no other bander nearby, but there are ten other banders in town, the nearest one being about two miles away. Since I have never exchanged chickadees with any of the other banders, and we do so often with other species, it appears there is not much migration or overlapping of chickadees.

To assist in the observation and identification of returning chickadees I started color-banding in 1958 for Dr. McCamey and have continued ever since. A different arrangement of plastic bands in two separate colors and the Fish & Wildlife Service band were placed on the legs of each bird. Having feeders located the proper distance from windows I could easily "read" the identification of each individual.

A combination window feeder and pull-string trap has been very helpful. The color-banded birds could be held long enough for accurate identification, then without handling the bird or going outside, it could be released. All unbanded birds were easily taken in through the window. In addition, many of my birds are trapped in McCamey chickadee traps which are set up on squirrel-proof stands. I also capture them on the ground in Mason, cloverleaf, and water-drip traps. Most of the traps are con-

stantly used as feeders, so that the birds get used to going in and out of them, making it all the easier to capture them when I am banding.

Table 1 shows the summary of all chickadees banded during the last ten years and the number which have returned each year. Table 2 shows the number and age of chickadees returning each year, and also the average number banded each year and the average number of survivors per year through the ten-year period.

TABLE 1

CHICKADEES BANDED & RETURNING FOR TEN-YEAR PERIOD

Year Banded	Number Banded	Year and Number of Returns									
		1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1957	42	17	19	6	5	3	2	1	1	1	1
1958	29		0	11	9	4	3	1	1	1	0
1959	50			8	24	20	12	7	5	3	1
1960	65				2	14	8	6	5	4	2
1961	89					11	15	9	7	8	5
1962	44						3	13	7	4	2
1963	54							8	3	9	6
1964	39								0	14	7
1965	53									3	14
1966	48										4
Totals	513	17	19	25	40	52	43	45	29	47	42

TABLE 2

CHICKADEE SURVIVAL RECORD

Year Banded	Number Banded	Years of Return after Banding									
		1	2	3	4	5	6	7	8	9	10
1957	42	*17	19	6	5	3	2	1	1	1	1
1958	29	0	11	9	4	3	1	1	1	1	0
1959	50	8	24	20	12	7	5	3	1		
1960	65	2	14	8	6	5	4	2			
1961	89	11	15	9	7	8	5				
1962	44	3	13	7	4	2					
1963	54	8	3	9	6						
1964	39	0	14	7							
1965	53	3	14								
1966	48	4									
Totals	513	*56	127	75	44	28	17	7	3	1	1
Average	51.3	5.6	14.1	9.3	6.2	4.7	3.4	1.8	1.0	0.5	1.0

*Most of the chickadees are banded in the Fall so that even though they are trapped during the rest of that year, they cannot be counted as a "return". As a result, first year "returns" are usually very low.

My oldest chickadee was banded March 28, 1957, with band no. 26-43449. Assuming it was hatched about June 1, 1956, it is at this writing at least ten years and ten months old. The last capture date was March 22, 1967. The color bands on this bird became so old, thin and completely discolored that I did not depend on sight returns during 1966. On December 12, 1966 one band was missing, so I replaced it with a shiny red one. Now I can easily distinguish this bird from other chickadees. My records show that I have trapped this bird 46 times and observed it 25 times by color-band identification. It has repeated every year since I banded it. For the past month or two I have noticed that it quite consistently carries its wings at a slightly lower position.

My records indicate an especially large number of chickadees banded during the years 1960 and 1961. This influx must have occurred late in 1960 and early 1961, because most of the chickadees banded for those two years came within that late fall and winter season.

I was interested to know what a typical year of my records would indicate for an adult survival rate. Using the banding year 1959 on which to base my figures, since there were a number of return years to work with and an average number of birds, I found my survival rate for adult Black-capped Chickadees to be about 60%. I arrived at this percentage by taking figures from Table 2 under the banding year 1959 as follows:

Years of return after banding:	2	3	4	5	6	7	8
Number returning each year:	24	20	12	7	5	3	8
Survival from year to year:	83%	60%	58%	71%	60%	33%	

The average of these rates is approximately 60%. The survival rates were calculated for the years shown so as to consider only adult birds.

I have a record of a chickadee family which contributed considerably to my longevity records. Since there are so many chickadees in this area, I have spent considerable time attempting to locate nests without much success. Over the years I have found only three nests with eggs or young present. One of these nests was discovered about seven feet up in a rotted birch tree approximately two hundred yards from my home. On June 10, 1961 I banded eight nestlings in this nests. Through color-bands I was able to identify the parents of this clutch. One was banded March 29, 1957 and was last trapped Dec. 7, 1962. The other was banded September 12, 1959, and was last trapped March 3, 1965. Then five years after banding the

nestlings I was surprised to capture one of them, on November 21, 1966, while I was assisting with another banding project about one mile from my home. This is the only record I have of a nestling recovery.

Since others have written similar reports on Black-capped Chickadees, I have compiled my records for comparative purposes. Among these reports are John H. Kennard, "A Ten-Year Study of a Local Population in Bedford, N.H.", Bird-Banding 33 (4): 198-201; and J. Murray Speirs, "Survival and Population Dynamics with Particular Reference to Black-capped Chickadees", Bird-Banding 34 (2): 87-93.

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THREE RECOVERIES IN ONE DAY

Bill Savell seems to be luckier than most of us in finding banded birds, and writes: "While exploring in Great Egg Harbor Bay, N.J. on July 27, 1967, a friend (Willard Sharp) and I found two dead birds bearing bands and recovered a third by means of a nest trap. They are:

- Black Skimmer #534-77833: dead, near Somers Point
- Black Skimmer #534-97129: trapped and released near Longport
- Loon (?) #498-09806: dead, near Ocean City - badly decomposed

"In addition to the above, a Laughing Gull bearing band #595-72075 was found alive and in good condition but unable to fly because it had the misfortune to step into an open mussel (bivalve) which trapped it. We broke the shell, fed the captor to the gull and released it...This took place July 18, 1967."

Bill promises to write up, with photographs, his nest trap for Black Skimmers for a future issue of EBBA News.