

THE AGE OF BLACKBIRDS AND STARLINGS

By Harold E. Burt and Maurice L. Giltz

The time interval between banding and recovery gives a minimum known age for a bird. Interest in such data is frequently directed toward the extreme cases and possible "records." Another consideration, however, is the frequency with which birds of various ages are found, with a view to getting some notion of average longevity. We have a sample of 1955 recoveries of Blackbirds, Common Grackle (Quiscalus quiscula), Brown-headed Cowbird (Molothrus ater), and Red-winged Blackbirds or Red-wings (Agelaius phoeniceus) and Starlings (Sturnus vulgaris) so that some statistical analysis is warranted.

These birds were banded at decoy traps in Columbus, Ohio, and in the vicinity of Vickery, Sandusky County, Ohio, primarily from 1963 to 1972. The recoveries to be analyzed are based on approximately 109,000 birds banded at Columbus and approximately 30,000 banded in the Vickery area.

The first row of Table 1 gives the total number of recoveries for each species. The second row shows the number recovered less than 2 years after banding. The third row gives the frequency of recoveries between 2 years, 0 months and 2 years, 11 months. Frequencies follow for the 3rd year, 4th year, etc., groups. The bottom rows indicate frequencies of recovery after 2 or more years and after 4 or more years.

There is an apparent tendency for the sample to comprise younger Cowbirds. This can be shown more clearly by reducing some of the figures to percents, - Table 2. The 274 Cowbirds recovered less than 2 years after banding are 86% of the total Cowbird recoveries. The corresponding percents for the other species are smaller than this. The 86% differs significantly from the other three. A Z-test (difference \div standard deviation of difference) gives 3.8 for Cowbirds vs. Grackles, 4.9 for Cowbirds vs. Red-wings and 4.6 for Cowbirds vs. Starlings. Obviously the significance is well beyond the 1% level. However, the percents for Grackles, Red-wings and Starlings do not differ significantly from each other ($p > .05$).

Similarly the 14% for Cowbirds recovered after 2 or more years differs significantly from each of the other percents in that row ($p < .01$). But the percents for Grackles, Red-wings and Starlings do not differ significantly from each other ($p > .05$). In the last row the 1.6% for Cowbirds differs significantly from the other three ($p < .01$) while the Grackles, Red-wings and Starlings do not differ significantly from each other ($p > .05$).

Another approach is to consider the differences between the distributions, the frequencies 274, 27, 11, etc., may be regarded as a frequency distribution for "less than 2 years," "2 years," "3 years" etc. This distribution for Cowbirds may be compared with the distribution 303, 55, 24, etc., for Grackles. Chi-square for the difference between these distributions is 19.13 where, with 5 degrees of freedom, 15.086 suffices for $p < .01$. So the distributions differ significantly. Similarly Chi-square for Cowbirds vs. Red-wings is 30.74 as against a requirement of 13.277, and for Cowbirds vs. Starlings Chi-square is 31.94 with a requirement of 16.812.

From the present sample of recoveries it would appear that the Cowbirds are not as long-lived as the other 3 species. Proportionately more of them have a known age of under 2 years and proportionately fewer have a known age of over 2 years, or over 4 years. These results are sound from a statistical standpoint. However, it appears unwise to generalize from the present data to Cowbirds in general without confirmation by other samples.

If such confirmation is obtained eventually we have no ready explanation of this shorter average life for Cowbirds. We looked for possibilities in the other items on the recovery record cards, especially the "how obtained" codes. For all 4 species "found dead" is the most frequent category but the Cowbirds are not distinctive in this respect. Thirty-seven percent of them are found dead as against 29% for Red-wings, 44% for Grackles and 46% for Starlings. Another frequent category is "roost bombing" by control agencies, but here the Cowbirds, Grackles and Red-wings are all 10% or 11%. "Trapped in a different block" does show a difference with 11% for the Cowbirds and less than 2% for the other species. But it is difficult to relate this to the possibly shorter life.

About the only contribution of the present analysis is to suggest a trend with this one sample and encourage other banders to make similar analyses with reference to possible species differences in average longevity.

TABLE 1

Age as Indicated by Recoveries

<u>Number Recovered</u>	<u>Cowbird</u>	<u>Grackle</u>	<u>Red-wing</u>	<u>Starling</u>
Total	317	404	254	980
Less than 2 years	274	303	176	738
2 years	27	55	36	127
3 years	11	24	22	58
4 years	1	15	14	37
5 years	4	5	6	16
6 years		2		3
7 years				1
2 or more years	43	101	78	242
4 or more years	5	22	20	57

TABLE 2

Percents in Age Categories

	<u>Cowbird</u>	<u>Grackle</u>	<u>Red-wing</u>	<u>Starling</u>
Less than 2 years	86	75	69	75
2 or more years	14	25	31	25
4 or more years	1.6	5.5	7.9	5.8

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EXPERIENCES WITH BANDED COWBIRDS

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During the older years when my husband and I banded, we hardly ever saw a cowbird during the winter. In the spring the Brown-headed Cowbird male sat on a favorite perch and called "whis - key." The female was probably finding apt nests where she could lay her eggs.

We lived ten miles from the center of Philadelphia in a borough called Glenolden, about two miles from the Delaware River. We also spent vacations with my parents on Martha's Vineyard, an island south of Cape Cod.

Once I was thoroughly fooled by cowbirds. In July I banded two fledglings in a song sparrow nest in our Vineyard garden. Then I banded three babies in a chipping sparrow's nest. Later one after another of the five was trapped, and all of them were young cowbirds.

We tried experiments by taking the juveniles a mile or more away in various directions, but within a few hours we would find them back again in our traps. Yet, during 40 cowbirds banded on the Vineyard, and repeated in traps during a season, not one was trapped as a return.

Only ten cowbirds were formerly trapped in Glenolden. During one season a cowbird would readily come to a trap, but none was caught a second season. We tried experiments to test homing instinct of cowbirds during one season, and they would come back.

There was an adult female cowbird which was particularly trap-happy. She was banded in Glenolden on May fifth, and thereafter entered one trap or another several times a day. Since she had no parental responsibilities further than finding nests in which to lay her eggs, we felt no compunction in deporting her. On May 28 she was taken to Sharon Hill, a couple of miles to the northeast, and released from a suburban train platform at 8:15 in the morning. For a few days thereafter the traps were not in operation. Then, on June 2nd, she was caught at nine in the morning. Another day she was taken to Essington, three miles southeast, and was released at ten o'clock. Three hours later, at 1:05 p.m., she was back in a trap.