

This method has been employed with a group of twenty Golden-crowned Sparrows (*Zonotrichia coronata*) held in an aviary to determine the complicated sequence of changes in crown pattern correlated with age. Individuals taken in October display strong age contrasts in skull condition. The crown feathering was so little disturbed by the procedure that upon immediate release in the aviary the alteration of the smooth contour of head feathering was scarcely noticeable. No scratching of the celloidin seal ensued. The birds showed little excitement during the inspection. Apparently the most disturbing action is the plucking of the crown feathers. After that the birds are quiet. The actual operation would seem to be less severe than blood-bank procedures, with which many persons are now intimately familiar. The skull operation, after a little practice, takes less than two minutes. It is not nearly as disfiguring, even temporarily, as the frontal injuries which many birds receive in the course of ordinary banding activity, and there are not the associated dangers of concussion and tumor growth.

Museum of Vertebrate Zoology, Berkeley, California.

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#### GENERAL NOTES

**Two Starlings banded as nestlings returned to their birthplace.**—One young Starling (*Sturnus v. vulgaris*) No. 40-221124, banded in the nest on May 23, 1942, at the Quebec Zoological Garden, Charlesbourg, Quebec, Canada, was found dead on June 9, 1944, shortly after it had been killed by foxes in an enclosure at the Zoo, some 200 feet from its birthplace. The bird was eating meat scraps inside the enclosure when killed.

Another nestling, No. 40-221132, banded on May 23, 1942, from a nest in a 56-room bird house at the Quebec Zoo was caught in a room of the same bird house on May 21, 1945, when he was feeding a brood of four young. This Starling had been color banded, and through previous observations had been found to be a male.

Twenty-eight young Starlings were banded in 1941 and 41 in 1942 in that bird house, but the young from the broods of 1943 and 1944 were not banded. Breeding adults were not trapped in the house previous to the summer of 1945 when 57 adult Starlings were banded. From that number, only one "return" was recorded and it was No. 40-221132.

No attempt has been made to trap and band the Starlings breeding in the vicinity of that colony. Raymond Cayouette, La Société Zoologique de Québec, Charlesbourg, Québec, Canada.

**Catbird Age and Return Records.**—In the past decade, *Bird-Banding* has published reports on the banding of Catbirds (*Dumetella carolinensis*) in North Carolina, New Jersey, New York, and Pennsylvania (1935, M. A. Boggs, 6: 134; 1939, W. R. Batezel, 10(3): 124; 1940, G. Gill, 11(1): 21-22; 1944, H. Groskin, 15(4): 160 and 1945, 16(3): 106).

At Nashville, Tennessee, Catbirds appear about mid-April and remain into

October. During the thirteen years between August, 1931, and August, 1944, I have banded 369 Catbirds at my home station. My earliest spring trapping records occurred on April 16 in 1941 and 1945; the latest autumn capture was made November 8, 1935, the only record after October 16.

Forty individuals, 10.8 per cent of the total number banded, returned in subsequent years, 35 as station recaptures; the other five were found dead or trapped at substations within two miles of the home station. Of the 39 banded in the nest, only one returned, 2.5 per cent of the nestlings; 115 banded in immature plumage yielded six returns, or 5.2 per cent of that number; and of 215 adults, 33 or 15.3 per cent returned. There is a possibility of a slight error in figuring adult and immature percentages since there were a few banded after the autumn molt when age was not discernible.

Comparing these Tennessee Catbird returns for a thirteen year period with those of Geoffrey Gill, New York, for a ten year period, we find a similar trend in ratios although, within a shorter period, he had banded a much greater number, 1134, with return records for 99 individuals (8.7 per cent). Of his 66 nestlings, only one (1.5 per cent) returned; his 579 immatures yielded 35 (6 per cent) returns; his 489 adults yielded 63 (12.87 per cent) returns.

Gill found that most of those banded as adults returned in spring but most of the 35 returning immatures did not appear in his traps until August or September, pointing to a breeding territory some distance from the place of banding. Among the six Tennessee immatures returning, only one was a September return, the others appearing in April, May, or June.

Among the 39 nestlings at Nashville, seven were taken in traps for a total of 19 times, indicating three were near their birthplace a month later, three for about two months, and one for three months. One, banded June 2, was found in adult plumage on September 4; one, banded July 16, when trapped September 2, was recorded as immature.

Known ages for birds banded as immatures are three of two years and one of four years. Among those banded as adults, 15-18 are known to have reached two years of age; 4 birds, three years; 7 birds, four years; 2 birds, five years; 1 bird, six years; 1 bird, seven years. The predilection of these older birds is to return in consecutive years usually in the same month each season. Among those returning annually are 3 each of the three-year-olds and four-year-olds, the 2 five-year-olds and both the six and seven-year-old individuals.

There are no recovery records to indicate the winter home or migration routes of any Nashville Catbirds.

In the Catbird papers previously mentioned, a number of longevity records have been published: New Jersey (Beecher S. Bowdish), nine years; North Carolina (Boggs), seven years (2 birds); Pennsylvania (Groskin), six years; New York (Gill) five years (2 birds). Amelia R. Laskey, Graybar Lane, Nashville 4, Tenn.

**A Nine-Year-Old Mockingbird and his Mates.**—A male Mockingbird (*Mimus polyglottos*), banded October 1, 1936, as a first-year bird, lived in the vicinity of my home until his disappearance about May 15, 1945. During that period, he was trapped 66 times. He and his mates were color-banded, facilitating a fairly complete biographical record. He had four successive mates and, during a four-week period in 1939, an extra mate, both females occupying nests simultaneously, assisted in nest-building and guarded by the male (1941. *Migrant* 12(4): 65-67).

Until the spring of 1939, he and his current mate occupied the ground about our house for both winter and summer territory. After that, his mates chose to nest on grounds of three different residences, 50 to 100 yards from our window feeding ledge. However, they came regularly for raisins for themselves and for the nestlings, leading the fledglings to the raisins for feedings. Thus, although nests outside the banding station could not be followed as closely as in the early