

THE CONSTANCY OF CATBIRDS TO MATES AND TO TERRITORY

BY GEOFFREY GILL

At Huntington, Long Island, New York, during the last three years, the writer has been interested in the study of Catbirds (*Dumetella carolinensis*) in relation to territory. Many resident nesting Catbirds have been banded with colored bands and it is possible to ascertain the constancy of pairing and to territory during a single season and following seasons.

Of twelve nests studied during the past three seasons in which all parent birds were banded, in four cases, both parents wore colored bands and in the remaining eight cases at least one of the parents were so marked.

In the *Bulletin of the Northeastern Bird-banding Association* (Vol. I, pp. 48-49) Mrs. H. G. Whittle records a case of a pair of Catbirds which were constant throughout a season, successfully rearing two broods. In the twelve cases recorded here there is no similar case, because not a pair in my records were successful in raising two broods in a single season, but cases of constancy do exist.

The most interesting records are of a pair of this species which, for convenience, are named "6M32", being the male on territory 6 in 1932, and "6F32", his mate. These two birds were banded in mid-June, 1932, and it is thought that due to the lateness of the date of the nest building, some ten feet east of the banding station, that this was a second nesting. Their brood of two left the nest on July 18. While the female or the young were never seen or taken in the traps again that season, the male repeated on August 20.

In 1933, 6M32 returned on May 13 and was observed singing on territory 1 the next day. This territory proved to be his home for 1933, located some 250 feet southeast of his 1932 residence. This territory was occupied during the previous year by another pair so was decidedly not a part of his original territory. 6M32 won a new mate and built a nest a foot from the nest-site of the 1932 occupants of this thicket. During incubation, on June 8, the four eggs and the female disappeared. 6M32 was very silent for two weeks but was seen frequently on the same territory. Another mate, an unbanded bird, appeared on June 23 and it is believed that a second nest was built some seventy feet south of the first attempt, however the nest was never found. The male repeated in our traps on August 6.

6M32 appeared again in our traps on May 17, 1934, and he was seen singing three days earlier on territory 1, being constant to terri-

tory for the second season and third nesting. His mate for the first nest was a bird banded on the left leg. Again the nest was built in almost the same spot as in previous years and again the eggs were stolen.

The second nest, with a new mate, banded by us on June 16 and wearing colored bands, was built to the southward a short distance but was too well hidden for discovery. The male repeated in our traps again on August 17*, obviously molting.

The above male changes mates apparently with each nesting but was fairly constant to territory.

6F32, the mate of the above male in 1932 was not retaken in our traps until July 1, 1933, but she was found on May 21, 1933, mated with a bird banded on the right leg on territory 7, 310 feet east of her former territory and the closest Catbird neighbor to her mate of the former year. During incubation the four eggs disappeared, but both birds stayed on the same territory. A new nest was started shortly afterwards some sixty feet farther east and the three young left this nest on July 30. One of these young repeated in our traps on August 19, but all others of the family were never seen or trapped again. In this case the female changed territories and mates from one season to the next but she was constant to her mate and to her territory during a single season.

In the case of 2F33, on territory 2, 300 feet northeast of the banding station, she mated with a bird banded on the right leg throughout her two known nestings in 1933 and the first nesting of 1934. The second nesting for 1934, if it existed was not recorded. These two birds changed territory with each nesting in 1933, being first on territory 2 and then building a second nest, after the first was broken up, on territory 8, some 200 feet north of the first nest-site. Their first nest in 1934 was again on territory 8. This pair shows the greatest constancy of mating, if not to territory, if the male was always the same bird banded on the right leg. This fact is doubtful as I have banded 494 of these birds and many of this species are banded on the right leg. Only ninety individuals wear colored bands.

In the case of 9M33 and 9F33, it is interesting to note that this male, banded August 11, 1932, is one of the few immature birds which I have recorded to return. He was found on May 20, 1933, with his mate, nesting on territory 9, 250 feet west of the banding station. The four young left the nest on June 16. The female repeated in our traps

*It should be noted that with the exception of the first year, this bird only appeared in our traps as stated, although residing less than 300 feet away from the trapping station.

on June 18, and again on July 11 and 29. On July 15 the male, without a tail and obviously molting was taken in our traps for the first time that season. If a second nest existed it was never found. On May 12, 1934, 9M33 returned and with a new mate nested again on his 1933 territory, building a nest thirty feet south of the former site. During incubation the nest was destroyed, probably by a cat. The birds were not found again until the male repeated in our traps on August 10. This bird was not constant to his mate but was constant to territory.

In the nine nestings mentioned above constancy is shown by Cat-birds in varying degrees to mates and to territories. Of the three remaining nests in which birds were recognizable by colored bands none of them returned or during a single season showed any constancy.

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FOREST EDGE BIRDS AND EXPOSURES OF THEIR HABITATS

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In studying the bird population of forest edge communities of University and Brownfield woods near Urbana, Champaign County, Illinois, during the winter and spring of 1932-33 it was found that there was a marked selection by the majority of birds in regard to the exposure-direction of the habitat selected. The prevailing winds of the region during that period of the year are from the west and southwest and it was apparent that the birds selected exposures on the "lee" sides of the woods in both of the tracts studied.

The dominant vegetation of the thickets of the forest edges studied was redbud (*Cercis canadensis*), flowering dogwood (*Cornus florida*), young elms (*Ulmus americana*), spicebush (*Benzoin aestivale*), button bush (*Cephalanthus occidentalis*), several species of ash (*Fraxinus* spp.), and haw (*Crataegus* spp.). For a further description of the tracts of woodland studied see McDougall '22, Smith '28, and Blake '31.

Data regarding the bird population were obtained by cruising through the forest edge, recording all of the birds in a strip approximately twenty feet wide, which included the major portion of the thicket at the edges of the woods. In both cases the route of observations was about one mile long and since in both cases also the woods were slightly longer than broad, the north and south exposure observations are over a slightly smaller area than are the east and west observations.

The accompanying table lists the birds observed, with notations following the individual figures as to where the majority of that given