

A COWBIRD'S MATERNAL INSTINCT

BY LAURENCE B. FLETCHER

BETWEEN July 17th and 19th, 1924, I trapped and banded twelve Cowbirds (*Molothrus ater ater*) at my banding station at Cohasset, Massachusetts. Four of these were young-of-the-year, one, at least, only recently out of the nest. Of the remainder, five were adult males, and three adult females. Haying-time was just over, and when the Cowbirds were first seen they were feeding on insects in the stubble. Shortly, however, the birds found the baited trap in which they were caught later, a Higgins "Twodor", pull-string trap, eighteen by twenty-two inches.

In this trap on the morning of July 18th I observed an adult female Cowbird feeding a juvenile bird of the same species. Both birds were captured at this time, and bands numbered 67482 and 67483 were affixed, the youngster receiving number 67482. In the afternoon I saw what were apparently the same birds on the lawn, a female feeding a young bird as before, and this same day I again witnessed the operation of feeding in the same trap, and captured the birds for the second time.

The behavior of the two birds during the feeding operation was in no way unusual. The young bird fluttered its wings and followed the adult about with open mouth, begging for food, and she picked up bread crumb or raisins from the ground, and placed them in the open mouth much as Robins do. This continued for a good part of the morning, and was again seen in the afternoon, the same female apparently feeding the same young bird. Although other young Cowbirds were about the trap, 67482 was not seen to manifest any interest in them, and no other adult bird besides 67483 in any way responded to the entreaties for food, notwithstanding all twelve Cowbirds often fed close together. Definite information is, of course, lacking as to whether the repeated association of these two birds in this manner was accidental or took place as a result of blood-relationship, but, as far as the facts go, they lend some support to the contention of Walton (see below).

There was an abundance of food about besides that in the trap. At the time the feeding-process was going on, other adults and young birds of this species were feeding themselves, and in no case was any suggestion of parental relationship observed except as stated. The foods used in the trap were chicken-feed, bread-crumbs, and small seedless raisins,

and the latter two were fed to the young Cowbird, while, on the lawn, apparently insects were the food eaten.

Inasmuch as this observation is unusual, it seems to call for some discussion. W. H. Hudson,¹ writing of the loss of the parental instinct in a South American member of this genus (*M. bonariensis*), says: "That a species should totally lose so universal an instinct as the maternal one, and yet avail itself of that affection in other species to propagate itself, seems a great mystery."

Hudson further says (p. 84): "I am inclined to believe that *M. bonariensis* lost the nest-making instinct by acquiring that semi-parasitical habit, common to so many South American birds, of breeding in the large, covered nests of the Dendrocopidae. We have evidence that this semi-parasitical habit does tend to eradicate the nest-making one." "But the parasitical habit of the *M. bonariensis* may have originated when the bird was still a nest builder. The origin of the instinct may have been in the occasional habit, common to so many species, of two or more females laying together. The progenitors of all the species of the *Molothrus* may have been early infected with this habit, and inherited with it a faculty of acquiring the present one" (pp. 85 and 86).

In a recent issue of "The Auk" (Vol. 38, pp. 459-460), Ira N. Gabrielson raises the question: "Does the female Cowbird take an interest in the fate of the eggs she lays in the nests of other birds?", relating that he had observed a female of this species, close to a nest of the Red-eyed Vireo (*Vireosylva olivacea*) containing three Cowbirds' eggs, "acting much like an anxious female alarmed at an intrusion at her nest." The details of her behavior are not fully described, although the writer seems confident that he detected quite normal, motherly concern over his approach to a nest containing Cowbird's eggs.

In "Forest and Stream" for March 24, 1892, Mason A. Walton publishes an account of a female Cowbird which actually fed one of her own young in the nest of its foster-mother. This account seems to carry the observations of Gabrielson a step further, and if trustworthy is one of great interest and importance. Grave doubt, however, has been cast on its correctness by one of our ablest ornithologists, namely J. A. Allen, who deplored Walton's habit of "romancing."

From the foregoing evidence that has been offered by

¹ *Argentine Ornithology*, by P. L. Selater and W. H. Hudson, p. 82.

observations of the species, and especially the observation which prompted this article, there seems to be good reason to believe that the feeding of this juvenile Cowbird was not accidental, but was occasioned by a latent instinct to feed its young. There seems to be no evidence that the laying of eggs in other birds' nests came from a lazy instinct, but rather, as Hudson has said, with an abundance of nests and the fact that two females often lay in the same nest, this habit seems to have grown until we have the Cowbird laying exclusively in the nests of various other species.

It is evident that there is much to be learned as to the existence of additional instances, among several species of strictly parasitic Cowbirds, of practices indicating that they once possessed the normal nesting-instincts common to the vast majority of birds, for I believe it will be generally agreed that in no other reasonable way can the present habit of these birds be accounted for.

Brookline, Mass., March, 1925.

RECORD OF BIRD-BANDING DURING 1924

REPORTED BY MRS. ALICE B. HARRINGTON, RECORDING
SECRETARY

OUR members during 1924 banded birds to the number of 12,463. The number of species and subspecies (races) amounted to 69, nine of which have ranges outside the territory of this Association. Banding records of such birds have been reported to us on account of the fact that not a few members reside in the areas covered by other banding associations. These nine birds are: California Purple Finch, House Finch, Arkansas Goldfinch, Gray-headed Junco, Pink-sided Junco, Intermediate Junco, Western Tree Sparrow, Western Lark Sparrow, and Tufted Titmouse.

Of the birds banded during the year, ten species make up a very large proportion. These, arranged in the order of abundance, are: Common Tern, Eastern Song Sparrow, Slate-colored Junco, Purple Finch (*Carpodacus p. purpureus*), Chickadee, Black-crowned Night Heron, Chipping Sparrow, Tree Sparrow (*Spizella m. monticola*), American Goldfinch, and Roseate Tern.

Returns for the year number 763, of which 119 were Purple Finches, or 15.59 per cent.