

POSSIBLE COWBIRD PARASITISM OF YELLOW-BREASTED CHAT IN CIMARRON COUNTY, OKLAHOMA

BY JOHN S. SHACKFORD

On 25 June 1985, along the Cimarron River near the east end of the Black Mesa in northwest Cimarron County, Oklahoma, I found a young Brown-headed Cowbird (*Molothrus ater*) and, 20 feet away, the nest of a Yellow-breasted Chat (*Icteria virens*) which contained two young chats and one infertile chat egg. I do not offer the following discussion as absolute proof that the chats raised the cowbird chick; perhaps the series of events which appeared to link them was merely coincidence.

About 1940 (CST) I heard the "chipping" of a young bird. Upon investigating, I found a flightless cowbird chick on the ground just outside a stand of salt cedar (*Tamarix gallica*) about 10 yards wide, which paralleled the Cimarron River bank. At first, I suspected that the cowbird's foster parents might be Northern (Bullock's) Orioles (*Icterus galbula bullockii*), for one was perched closeby. These orioles were common in the area, but I wanted to verify any instance of cowbird parasitism. Also, I had heard a chat and a Blue Grosbeak (*Guiraca caerulea*) singing nearby, so I decided to hold the chick briefly to see which species might actually respond with parental interest. Within minutes, two chats were "fussing" at me from as close as 10 feet away in the salt cedar thicket. They seemed to show much concern, particularly when the cowbird "chipped" or fluttered, but they kept their distance. However, I did hear additional "chipping" of young, and as I moved toward that spot, I saw one adult chat with food in its bill nearby. I soon found myself about eight feet away from a chat nest two feet high in a salt cedar tree six feet from the outer edge of the thicket. Growing to about the same height as the nest was a sparse stand of goldenrods (*Solidago* sp.). The nest, positioned between the slanted, maroon-colored trunk and several upright side limbs, and constructed of dead grasses, stood out from its dark surroundings. It held two young chats. Unlike the deep brownish scapular feathers that were accented with light edgings on the cowbird chick, the chat's backs were uniformly dark olive green. The streaked breast of the young cowbird was also distinctive and the baby chats appeared to be slightly smaller than the cowbird chick. After retrieving my camera and taking the first picture, one chick jumped from the nest and there, to my surprise, was an addled chat egg, white with several distinct brown spots of varying size, most numerous around the large end. It was much too small to be a cowbird egg. According to A. C. Bent (1953, Life histories of North American warblers, Pt. 2, Bull. U.S. Natl. Mus. 203:589, Wash., D.C.), clutch size for the chat varies from three to six eggs, but is normally five.

Although the chat has long been suspected of breeding in the Oklahoma Panhandle, this is the first nesting record there for this rather secretive species. The nearest known nest in Oklahoma was about 250 miles to the southeast in Caddo County: between 17-26 May, 1860, eight nests with eggs, two to four in number, were found in the Fort Cobb area by C. S. McCarthy (Nice, M. M.,

1931, The birds of Oklahoma, Rev. ed., Publ. Univ. Oklahoma Biol. Surv. 3(1):163). However, the species breeds in nearby New Mexico (Hubbard, J. P., 1978, Revised check-list of the birds of New Mexico, New Mexico Orn. Soc. Publ. No. 6, p. 78).

G. M. Sutton noted that "fledged cowbird attended by chats has not been reported" in Oklahoma, although he gives several records of cowbird eggs in chat nests (1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 522). Herbert Friedmann, a recognized authority on cowbirds, says that "in many parts of its range, the chat is said to desert its nest if a parasitic egg is laid in it," but "on a fair number of occasions, chats have hatched and reared cowbirds," often along with young chats. He adds further that there seems to be "a surprising variability of response (to cowbird eggs) on the part of the chat and that, in terms of present data, this variability appears to be local" (1963, Host relations of the parasitic cowbirds, U.S. Natl. Mus. Bull. 233, Wash., D.C., pp. 121-122). But once young cowbirds are hatched the pattern is clear: "The adult host (of any species) reacts to the chick just as it would to its own young," and "acts, and seems, completely unaware of the substitution" (Friedmann, *op. cit.*, p. 31). Though I neither saw the cowbird chick in the chat nest nor observed it being fed directly by chats, I cannot help wondering why only the chats showed agitation at my presence if they were not the foster parents. The similarity in age between the chat and cowbird chicks, the short distance that the flightless cowbird was discovered from the chat nest (to my knowledge the only nest close by), and a below-normal clutch size for the chats all appear to lend further circumstantial weight to the strong possibility that the chats were the foster parents. Even the added chat egg may be relevant, for as Harold Mayfield notes, "the host suffers from reduced hatching success of its own eggs" because (1) the cowbird egg, when it is larger than the host's "gets more than its share of the heat from the breast of the host" and (2) "when the cowbird egg hatches first, as it usually does, the host tends to slack off incubating even though its own eggs are still unhatched" (1977, Amer. Birds 31:108).

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GENERAL NOTES

Late fall sighting of Cinnamon Teal in Johnston County, Oklahoma.

—The Cinnamon Teal (*Anas cyanoptera*) is usually seen migrating through western sections of Oklahoma from late summer (as early as 21 August) to as late as 1 December during the fall. In spring it has been recorded from 9 February to 22 May. Rarely does the species overwinter in Oklahoma, only four records being known, one each for Blaine (24 December), Payne (1 January), Oklahoma (15 January) and Caddo (31 January) counties. There is a strong probability that it has bred in the state (Sutton, G. M., 1974, A check-list of Oklahoma birds, p. 7; Sutton, G. M. [1982] Species summaries of Oklahoma bird records [unpubl. files], Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman).

On the late fall date of 15 December 1984, Virgie Fly, Charlene Wood, Linda Van Riper and I watched a solitary male Cinnamon Teal loafing and feeding in Twin Pond on the Tishomingo National Wildlife Refuge, Johnston County, south central Oklahoma. His unmistakable coppery color and small