

Yellowthroats and Yellow-breasted Chats. The oak-hickory woods were favored by Black-and-white Warblers. Yellow-throated, Pine and Prairie warblers occupied more open habitats. The Yellow-throated Warbler preferred very open stands of mature pines and oaks. Pine Warblers occupied woods dominated by mature pines. Activities of the Prairie Warbler were restricted to cut-over and abandoned pastures containing stands of saplings and clearings.

Most of the habitat suitable for nesting warblers in this area was grazed by livestock. Four pastures in the area subjected to almost complete removal of trees and shrubs supported no nesting warblers. Moderate grazing and retention of a few clumps of trees and shrubs to provide shelter for livestock and wildlife will assure suitable habitats for a number of nesting species. The clearings of small patches of forest land (1-3 acres) stimulated an increased use of the openings by the Kentucky Warbler, Yellow-breasted Chat and Prairie Warbler, but may also have increased numbers of Brown-headed Cowbirds (*Molothrus ater*). The future of those warblers nesting in the floodplain forest appears bleak because these woods are rapidly being converted to pastures and croplands.

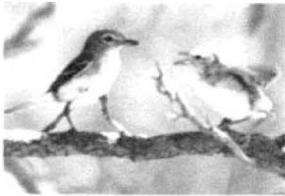
185 WITHERSPOON RD., ATHENS, GEORGIA 30606, 15 JULY 1991.

GENERAL NOTES

Yellow-throated Vireo nest in Cimarron County, Oklahoma.—On 13 June 1986, I discovered a pair of Yellow-throated Vireos (*Vireo flavifrons*) attending two of their young at a spot about 17 miles northwest of Boise City in Cimarron County, Oklahoma. The juvenile vireos were recently fledged and not yet capable of flight. I photographed them and banded one of the young birds (USFWS band #890-79067).

At about 1915 the previous evening, I had investigated a small but dense thicket of close-set hackberry, soapberry and cottonwood trees near a small stream. Although cattle had removed most of the undergrowth below four feet, the trees themselves were enmeshed with luxuriant tangles of grapevines. Scarcely a quarter-mile to the north lay the Cimarron River.

As I walked by the thicket, I paused for a moment to "squeak," in an attempt to attract birds. Immediately, two small, yellowish vireos appeared and began to scold and dive toward me. Detailed descriptions from my field notes read: "bright yellow throat turning white on belly, two white wingbars, heavy bill and yellow 'spectacles.'" Obviously, I had invaded their breeding territory, but no nest or young could I find, though I searched for several minutes. Because this locality is so far west, I suspected that these vireos belonged to a typically western species. But when I consulted a field guide, the above description matched very closely that for the Yellow-throated Vireo, a species which ordinarily nests at least 200 miles east of Cimarron County!



An adult Yellow-throated Vireo and its chick, photographed about 17 miles northwest of Boise City, Cimarron County, on 13 June 1986, by John S. Shackford.

The next day (13 June), I found two fledgling vireos in the little grove. They had not left the nest more than a day or so before, and were perched eight feet up and about 25 yards apart. One was resting on a dead

cottonwood limb, the other sitting quietly in a small soapberry. Subsequently, I spent more than three hours studying and photographing them.

The unusual manner of feeding that I observed is noteworthy. Soon after receiving food, the young vireos would become quiescent for perhaps 15 minutes, then would begin "cheeping," slowly at first, but with ever increasing frequency. Soon, an adult would appear (sans food), scrutinize the fledgling, and depart. Several minutes later, it would return with food for the chick, which by then had become quite insistent. After a feeding session, this entire scenario was repeated. It was surprising that the young birds' calls apparently instigated food-seeking behavior. The time spent foraging for food by the adults appeared to be less than 25% of that available.

At 2015 on 15 June 1986, Jack D. Tyler and I returned to the spot. Although we searched until 2140, we could find only the two adult vireos. I did not check the site after this date.

According to Sutton ([1982], Species summaries of Oklahoma bird records, Oklahoma Mus. Nat. Hist., Univ. Oklahoma, Norman), nests or recently fledged young Yellow-throated Vireos have been found in the state westward to Osage, Washington and Tulsa counties. This vireo has also been seen during the breeding season in Cleveland (1903, 1953, 1955, 1960, 1964) and Caddo counties (1970).

There are only two records known for the period of spring migration in areas west of central Oklahoma. On 20 April 1957, a female (UOMZ 2970) was collected by G.M. Sutton along the Cimarron River 13 miles north of Boise City, in Cimarron County, and on 13 April 1973, Janet M. McGee saw one in Lawton, Comanche County (Sutton [1982], *op. cit.*).

S.W. Woodhouse, writing in 1853, declared that the species was "Very abundant in Texas, New Mexico, and the Indian territory" (Birds, in *Report of an expedition down the Zuni and Colorado rivers by Capt. Lorenzo Sitgreaves*, p. 75, Washington: R. Armstrong, Public Printer). But he apparently failed to collect or otherwise document the species in New Mexico, because Sutton (1967, *Oklahoma birds*, Univ. Oklahoma Press, Norman, p. 479) stated that there were no records known for that state. A distribution map in Johnsgard (1979, *Birds of the Great Plains*, Univ. Nebraska Press, Lincoln, pp. 378-379) shows isolated populations of *Vireo flavifrons* along two major rivers in central North Dakota. It further indicates that along larger streams in central Nebraska and southeastern South Dakota, the breeding range extends significantly westward. Nevertheless, none of these locations is so far west as the one reported herein.—John S. Shackford, 6008-A Northwest Expressway, Oklahoma City, Oklahoma 73132, 18 March 1992.

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