

Flame-colored Tanager in Arizona

This new species for the United States stayed long enough to successfully breed with a female Western Tanager.

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IN THE CHIRICAHUA MOUNTAINS OF southeastern Arizona, in the South Fork of Cave Canyon Creek, a singing male Flame-colored Tanager (*Piranga bidentata*) was identified April 11, 1985, by Morse.

This tanager species had not previously been found in the United States. It is scarce in the adjoining Mexican state of Sonora, where it has been recorded only four times, the northernmost sighting being near Movas (Clark 1984), a locality about 375 kilometers (225 miles) south of the Mexican border. Movas is almost due south of Cave Creek Canyon, which is about 70 kilometers (40 miles) north of the border. Not until one reaches the central to southern part of Sinaloa, the state south of Sonora, an additional 475 kilometers (285 miles) away, does the species become more plentiful.

The popular image of the male Flame-colored Tanager is of a red or rose-colored bird having whitish wing bars. The Arizona male was a bright flame-orange color about the head and a less intense reddish-orange on the underparts, an example of the orange phase illustrated in Davis (1972). This color in the male seems to be as common as the red phase (Blake 1953).

The Arizona bird, following the initial discovery, remained in the same range of perhaps ten acres, not far above a United States Forest Service campground in the South Fork. The elevation above sea level is about 1630 meters (5360 feet). The dominant vegetation here (in order of dominance) consists of Apache Pine (*Pinus latifolia*), Chihuahua Pine (*P. leiophylla*), Arizona Sycamore (*Platanus wrightii*), Silverleaf Oak (*Quercus hypoleucoides*), Arizona White Oak (*Q. arizonica*), Douglas-fir (*Pseudotsuga menziesii*), Alligator Juniper (*Juniperus deppeana*), Arizona Cypress (*Cupressus arizonica*), Bigtooth Maple (*Acer grandidentatum*), and Birchleaf Buckthorn (*Rhamnus betulifolia*).



Flame-colored Tanager (*Piranga bidentata*) in Arizona, May 1985. Photos/A. J. Clay.

The tanager initially sang persistently from the tops of the taller trees, usually pines. It readily came in, rather excitedly with crest feathers raised and nervous actions, to a taped recording of its song which seemed to all observers to closely resemble the song of other North American tanagers, particularly the Western Tanager (*P. ludoviciana*). The song was introduced by a distinctive call note which might be described as a rolling, burry "prittic." The bird often gave this call note, usually at a rate of 10 to 15 per minute, as it foraged.

The male's singing intensity abruptly declined with the appearance of a female tanager on April 22, which was subsequently identified as a Western Tanager by several observers very familiar with both species. Courtship behavior began at once, with much pursuit by the male,

and his ritual feeding of the female. The carrying of nest material was soon noted and the female was then seen only intermittently, feeding in the company of the male then disappearing again. On April 28, a male Western Tanager appeared in the area and disputed the territory with the male Flame-colored Tanager. After three days of violent conflict, in which they were several times seen to come to grips in the air, fall to the ground and roll in the dead leaves, the Western Tanager disappeared. Later, a successful Western Tanager nest was found about 150 meters (500 feet) from the hybrid nest and a Hepatic Tanager (*P. flava*) nest was found not more than 50 meters (160 feet) away. Both of these territories were established after the hybrid nest was well into incubation.

On May 5, the hybrid nest was found.



Atypically, the tanager preyed on the nearby nest of Solitary Vireos, consuming a total of three eggs. Shown here carrying a caterpillar to its young.

It was built near the end of a branch of a medium-sized (20 meters [65 feet] in height by 40 centimeters [15 inches] diameter breast height) Apache Pine, about 4 meters (12 feet) from the trunk and about 8 meters (25 feet) from the ground. The pine grew on a steep slope just above the floor of the canyon. The nest was constructed of twigs and pine needles with a lining of fine roots or rootlets. It measured about 145 millimeters (6 inches) in diameter and 50 millimeters (2 inches) in depth.

The female alone incubated the eggs and hatching occurred on the morning of May 15. At that time the male was seen to bring food to the female on the nest. He was not seen approaching the nest at any time during incubation.

While the young were being fed, the female was heard giving the "prittic" call note used by the male. Both adults sometimes sang while they were approaching the nest with food and both often gave the call note as they foraged together. The male was also noted to have a soft or *sotto voce*, ventriloquial song.

On May 24, the male went to a Solitary Vireo (*Vireo solitarius*) nest 50 meters (160 feet) from his own, removed an egg, flew about 20 meters (65 feet) and ate the egg. He then returned to the unprotected vireo nest and from a perch on the rim ate two more eggs. Later in the day he returned to the same nest but was driven off by the adult vireos. On May 27, the male

was seen apparently predated the nest of a Western Wood-Pewee (*Contopus sor-didulus*).

On May 25, an apparently dislodged egg was observed at the tanager nest, caught in the twigs on the rim. On May 28, exactly 13 days after hatching, two young fledged. One fledgling was found in an oak about 40 meters (130 feet) from the nest tree, where it spent the next 24 hours with only one short move to a different branch. The male was seen to feed this fledgling several times. The second fledgling was found about 30 meters (100 feet) away the next morning and it, too, was fed by the male. Later that day the female was seen with the fledglings but they soon drifted off up the canyon. Their distinctive food call was heard occasionally for the next two days, and then only the male was seen sporadically by a few birders until three weeks after fledging. At that time, the whole family returned to the area of the nest and were again seen daily. The last confirmed sighting of the fledglings occurred June 23, when the male was seen feeding both birds who were still begging.

After hatching, photos and tape recordings of the male, female, and fledglings were made and used as a basis for identification of the female. Some of this material and the nest have been deposited in the Arizona Bird Committee's documentation file in the Department of Ecology and Evolutionary Biology at the Uni-

versity of Arizona in Tucson. About one-half of the dislodged egg is with the nest. The egg has a bluish-green ground color, speckled with brown.

On June 26, the female was seen going to a new nest which had been first found, unattended, June 16. This nest was on a horizontal limb of an oak about 6 meters (20 feet) above the ground and about 30 meters (100 feet) from the first nest. It was much less artfully camouflaged than the first. On June 27, the female was definitely incubating again. The second brood hatched July 9 or 10 but the nest was abandoned and both adult birds were gone by July 18.

Hybridism in tanagers has seldom been recorded. The most pertinent instance seems to be that of Tordoff (1950), involving a Western Tanager and a Scarlet Tanager (*P. olivacea*). In the present instance at least, the likelihood of interspecific breeding was greater because of the absence of any female Flame-colored Tanagers.

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LITERATURE CITED

- BLAKE, E. R. 1953. Birds of Mexico. The University of Chicago Press. 644 pp.
 CLARK, T. O. 1984. Notable records of birds from Eastern Sonora, Mexico. *Western Birds* 15: 134-136.
 DAVIS, L. I. 1972. A field guide to the Birds of Mexico and Central America. University of Texas Press. 282 pp.
 TORDOFF, H.B. 1950. A hybrid tanager from Minnesota. *Wilson Bull.* 62: 3-4.

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