

## FEATURED PHOTO

### A POSSIBLE FIRST HYBRID OF *ICTERIA* × *ICTERUS*

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On 10 September 2019, along my typical birding route along San Timoteo Creek near Redlands, San Bernardino County, California, I encountered a rather odd bird. About a mile into the walk I first noticed at a distance what superficially appeared to be a Yellow-breasted Chat (*Icteria virens*). It struck me as interesting initially just because I had not seen a chat well in a few weeks, because it was actually out in the open, and it allowed me to advance up to it slowly for decent photographs (Figures 1 and 2). The bird was silent, and after a minute or two it flew off. The bird was unusual for a chat not only in its approachability but also in its patterned back, more greenish color on the back and head, evident wing bars, and blackish tail.

On a nearly weekly basis I walk along San Timoteo Creek, which is in a broad canyon with a riparian corridor on the coastal slope of southern California (Figure 3). In the summer the site is home to a robust population of the Least Bell's Vireo (*Vireo bellii pusillus*), along with other summer residents such as the Ash-throated Flycatcher (*Myiarchus cinerascens*), Yellow Warbler (*Setophaga petechia*), Blue Grosbeak (*Passerina caerulea*), Hooded (*Icterus cucullatus*) and to lesser extent Bullock's Oriole (*I. bullockii*), and Yellow-breasted Chat ([www.ebird.org/barchart?r=L899956&yr=all&m=](http://www.ebird.org/barchart?r=L899956&yr=all&m=)). In September, many of those summer breeders are beginning to depart, with only a few Bell's Vireos and Yellow Warblers remaining. I had not conclusively seen or heard a Yellow-breasted Chat since 2 August, although I had a brief view of a silent bird resembling a chat on 2 September.

I couldn't help but wonder why the bird appeared so unusual. The pattern didn't seem correct for leucism, and I couldn't find any examples of a juvenile plumage that matched. I sent the photos to some of my local birding friends, and they all agreed that it clearly wasn't a typical Yellow-breasted Chat. I then distributed the photos to expert birders across the country and started to receive feedback over the next day.

On 12 September 2019 I returned to look for the bird again, and after a brief search refound it at nearly the same location, this time feeding in an elderberry tree. Again, I heard no definite vocalizations, but I obtained a few more photos as well as a short video clip of it plucking elderberries (<https://westernfieldornithologists.org/archive/V51/Grube/>). I played songs and calls of the Yellow-breasted Chat, Hooded Oriole, Baltimore Oriole (*Icterus galbula*), Orchard Oriole (*I. spurius*), and Scott's Oriole (*I. parisorum*) but could not detect any physical or vocal response.

On 13 September I returned with a few other local birders, but on this day the bird was much more secretive, and only a few of us had any sort of confirmatory view. The next day we returned again, and with some effort saw and photographed it. Although collection of at least a DNA sample was desirable, because of the habitat and behavior of the bird, collection of a fecal sample did not prove possible. As the land is owned by the city of Redlands, and because the Yellow-breasted Chat is a species of special concern to the California Department of Fish and Wildlife, authorization of any collection would have been time-consuming at the least. Unfortunately, the bird could not be relocated after that final sighting on 14 September, so any further plans to pursue this option were aborted.

From its physical appearance, the bird appears intermediate between a Yellow-breasted Chat and an oriole. It may be a hybrid or, possibly, a Yellow-breasted Chat expressing some latent ancestral genes, resulting in an oriole-like pattern with or without leucism.

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FIGURE 1. Apparent chat  $\times$  oriole in San Timoteo Canyon, San Bernardino County, California, September 2019. Notice how the wing bar can be obscured depending on the bird's posture. An album with additional photos can be found at <https://westernfieldornithologists.org/archive/V51/Grube/>.

*Photos by Matthew Grube*

Of course either option would be extremely odd. I have been unable to find previous documentation of a hybrid Yellow-breasted Chat  $\times$  oriole. In his *Handbook of Avian Hybrids of the World*, McCarthy (2006) mentioned no cases of hybridization concerning the Yellow-breasted Chat. The affinities of the Yellow-breasted Chat, the sole member of genus *Icteria*, have long been unclear. Traditionally it was grouped with the wood-warblers (e.g., American Ornithologists' Union 1998), but more recently, on the basis of DNA-sequencing studies finding it may be slightly closer to the Icteridae than to the Parulidae, has been placed in its own family Icteriidae (Barker et al. 2013, 2015, Chesser et al 2017). Under the current taxonomy, this proposed hybrid may represent the first interfamilial hybrid among the nine-primaried oscines.

Table 1 compares notable features of the apparent hybrid with those of the Yellow-breasted Chat and orioles.

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FIGURE 2. Dorsal view of apparent chat  $\times$  oriole in San Timoteo Canyon, San Bernardino County, California, September 2019.

*Photo by Matthew Grube*

Provided one of the bird's parents was an oriole, ascertaining the species of oriole is a difficult problem. The pattern on the back feathers and scapulars with dark centers and broad greenish edges is reminiscent of the fresh plumage an adult male Hooded Oriole, in which the edges are buff. On the wing, the white median coverts recall Bullock's Oriole.

I cannot say whether this bird was a summer resident in San Timoteo Canyon. The Yellow-breasted Chats at this location often are not seen well, if at all, during



FIGURE 3. Habitat along San Timoteo Canyon. The riparian strip is in the background; some open valley floor lies between the riparian strip and the hills. The apparent hybrid was seen both in elderberry trees in the center of the valley as well as in the edge of the riparian strip.

*Photo by Matthew Grube*

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TABLE 1 Comparison of the Typical Plumage and Structure of the Yellow-breasted Chat and California Orioles with the Possible Hybrid

Feature	Yellow-breasted Chat	Orioles	Possible chat × oriole
Bill	Heavy, gray, fairly short, with curved culmen	Longer and more pointed bill, coming to a sharper tip; culmen nearly straight (e.g., Bullock's, Baltimore) to slightly curved (Hooded); black with the mandible pale bluish basally	Length intermediate; curvature of culmen intermediate; lower mandible bluish
Back pattern	Plain olive	Variable from nearly plain olive to grayish in females and immatures, to black with buff to olive edges in adult males in fresh plumage	Black streaks and chevrons patterned on olive background
Facial markings	Dark lores with white "spectacles"	Variable from plain olive to confluent areas of black; no eye ring	Dark lores with pale malar area, pale supraloral line, narrow white eye ring with slight posterior extension
Wing bars	Absent	Present	White upper wing bar (median coverts)
Scapulars	Plain olive	Variable; dark centers typical for Baltimore and may be seen on Bullock's	Black centers with greenish edges
Tail	Plain, nearly concolor with rest of upperparts	Dull yellow in female and immature, graduated and solid black with white tips in adult male Hooded, and mixture of black and orange in adult male Bullock's	Graduated black rectrices with white tips on the three outer pairs

my typical walks. This bird could well have been present for some time without my encountering it. If it was indeed a local bird, the oriole parentage would be limited to the Hooded and Bullock's. Between those two options, the Hooded Oriole is the far more abundant of the two in my experience, and it tends to occupy habitat similar to that of the Yellow-breasted Chat in the riparian strip. Bullock's is much less common, and I generally see it only in the eucalyptus groves. If this was not a local bird but a migrant passing through, that opens up many more possibilities.

The bird's characteristics and their interpretations are summarized in Table 2. Ultimately, the color patterns of the wing and tail may be the strongest indicators of the possible parent oriole, and would seem to favor the Hooded. The extent of black in the plumage implies the bird is an adult male, provided one parent was an oriole. Therefore even if the hybridization had taken place locally, the bird had migrated and returned at least twice since hatching.

The apparent hybrid was in entirely fresh plumage. The Yellow-breasted Chat differs from the Hooded and Bullock's Orioles in that it molts before migration, in its breeding range, whereas the Hooded and Bullock's Orioles molt after migration. If the bird in question was a hybrid chat × oriole, the freshness of the plumage implies that the chat pattern of molt dominated over the oriole pattern and that the bird may have summered in or near San Timoteo Canyon.

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**TABLE 2** Characteristics of the Proposed Yellow-breasted Chat × Oriole and Their Interpretation

Characteristic	Interpretation
Wing feathers of a single generation of plumage; black in the rectrices, primary coverts, etc.	Bird is an adult male provided that <i>Icterus</i> was one parent
Graduated black rectrices with white tips on the three outer pairs	Favors Hooded; Bullock's would be mostly orange and lacking white tips
White median coverts, but dark greater coverts with white tips	Favors Hooded; an adult male Bullock's with white median coverts should also show mostly white greater coverts.
Black-centered, green-fringed back feathers	Compatible with either species of oriole
Bill shape and color	Might suggest Bullock's, but of limited value

Despite experts' analysis, there still is no absolute way to ascertain this bird's identity. While many of the features suggest a Yellow-breasted Chat × oriole sp., perhaps even a Yellow-breasted Chat × Hooded Oriole, this hypothesis would be hard to prove without analysis of DNA.

I will certainly keep my eyes open for this bird this year when I continue with my usual walks at my home patch in San Timoteo Canyon.

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