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### APPARENT PACIFIC NORTHWEST ORANGE-CROWNED WARBLER (*Leothlypis celata lutescens*) IN KANSAS: A HYPOTHETICAL FIRST STATE RECORD

Jon C. King<sup>1</sup> and Carolyn Schwab<sup>2</sup>

<sup>1</sup>21 W Starr Ave, Columbus, OH 43201 ([jonking271@gmail.com](mailto:jonking271@gmail.com));

<sup>2</sup>6114 NE 24th St, Newton, KS 67114 ([caschwab3591@gmail.com](mailto:caschwab3591@gmail.com)).

#### ABSTRACT

An Orange-crowned Warbler (*Leothlypis celata*), apparently of the far western subspecies (*L. c. lutescens*), was photographed at Lake Scott, Scott County, Kansas, on 24 March 2019. Here we report on that encounter, discuss the identification process, and provide further comments on the status and distribution of Orange-crowned Warbler subspecies in Kansas.

#### OBSERVATION

On the morning of 24 March 2019, Kathy McDowell, Mary Plinsky, and Carolyn Schwab visited Lake Scott State Park, Scott County, Kansas. At 9:00 a.m. Schwab noticed a warbler foraging in a brushy area along Barrel Creek, approximately 100 meters east of the fishing pond. Initially, there was some uncertainty in identifying the warbler, subsequently referred to as the Scott Lake putative *lutescens* (SLPL). Specifically, its plumage seemed overly bright compared to the Orange-crowned Warblers normally encountered in Kansas. The SLPL was observed as close as 10 meters for the next 5-6 min. Schwab obtained photographs with her Canon PowerShot SX60 (Figure 1). Following this initial observation, the observers concluded that the SLPL was indeed an Orange-crowned Warbler. After the observation was posted to eBird, it was suggested that the SLPL belonged to the far-western subspecies *L. c. lutescens*.



**Figure 1. Apparent lutescens Orange-crowned Warbler at Lake Scott, 24 March 2019. Pertinent field marks include the bright yellowish plumage, the lack of grayish coloration on head with essentially zero contrast between head and body, and yellowish eye-ring. Photograph by Carolyn Schwab.**

## DISCUSSION

### Identification Challenges

Identification of the SLPL to species is straightforward, while identification to subspecies requires further explanation. Four “reasonably well-defined” subspecies of Orange-crowned Warbler differ in geographic distribution, plumage color and pattern, size, molt timing, vocalizations, migration timing, and breeding ecology (Dunn and Garrett 1997, Pyle 1997, Gilbert et al. 2010).

The nominate subspecies, *L. c. celata*, breeds throughout the boreal forest and winters from the southeastern United States into Central America. In migration it passes largely through the Great Plains and adjacent portions of the Midwest. The subspecies *celata* is rather drab looking, exhibiting a grayish head that contrasts noticeably with the body, and a whitish eye-ring. The western subspecies, *L. c. orestera*, breeds throughout the interior-west of North America from Yukon south to California and New Mexico, and winters from the southwestern United States to southern Mexico. In appearance, *orestera* is similar to *celata*, although its plumage averages brighter. A third subspecies, *L. c. sordida*, is highly range restricted, and is found only on the California Channel Islands and adjacent portions of mainland

California. Its plumage is rather dusky with heavier streaking. Lastly, subspecies *L. c. lutescens* breeds along the Pacific Coast from Alaska to southern California, and winters from central California east to Arizona, and south to southern Mexico. In contrast to *celata*, *orestera*, and *sordida*, the plumage of *lutescens* is considerably brighter, appearing yellowish-green overall, with little to no grayish coloration on the head. Contrast between the head and body of *lutescens* is minimal and its eye-ring appears yellowish.

Before discussing identification of the SLPL, we must stress that accurate identification of Orange-crowned Warbler subspecies can be challenging, and sometimes impossible. Plumage varies within each subspecies among age and sex classes, and with plumage wear. Sibley (2011) wrote that “Four subspecies groups may sometimes be distinguishable in the field. It may be possible to identify at least Pacific (*V. c. lutescens*) with certainty in the field, but differences are small and need clarification.” It is also important to remember that intergradation between subspecies occurs where ranges meet.

Regarding the subspecies identification of the SLPL, both *celata* and *orestera* can be ruled out using similar reasoning. The plumage of the SLPL is overly bright for these two subspecies and there is no evidence of grayish coloration on the head, and essentially no contrast between the head and body. Additionally, the eye-ring is yellowish. Elimination of *sordida* is more difficult, but considerably darker olivaceous plumage and heavier underpart streaking would be expected in that subspecies. Moreover, vagrancy of *sordida* seems extremely unlikely given its restricted distribution and limited range of migration (Dunn and Garrett 1997). Although identification of the SLPL as *lutescens* seems logical, we lack experience with that subspecies and sought expert opinions. Tony Leukering and Steve Mlodinow (pers. comm.) both were of the opinion that the SLPL was a *lutescens*, noting that while Orange-crowned Warblers can be relatively bright and greenish during spring migration, the SLPL falls outside the range of variation expected for *celata* and *orestera*. Peter Pyle (pers. comm.) also agreed, noting that “It’s an adult male by plumage and looks fine for *lutescens* to me. Almost too bright (abnormal?) but some adult males can be this bright in spring when the fringing wears off and they are at their finest.”

### **Distribution and Migration**

In Kansas, the Orange-crowned Warbler is considered a common migrant in western and central portions of the state, becoming less common eastward (Thompson et al. 2011). Examination of eBird (2020) frequency data for the entire state shows that spring migration takes place largely between mid-April and mid-May, peaking around the beginning of May. In fall, migration takes place during September and October, peaking during the initial half of October. It should also be noted that migratory timing differs longitudinally across the state, and across the southern Great Plains region. More specifically, passage takes place slightly later during spring and slightly earlier during fall in the western portion (i.e. “High Plains”) of the southern Great Plains (eBird 2020). This longitudinal discrepancy in

timing likely reflects passage of two different Orange-crowned Warbler subspecies through the region.

Two subspecies of Orange-crowned Warbler are widely known to occur in the southern Great Plains per review of regional literature the authors had on hand. The boreal subspecies, *celata*, is encountered throughout the region during migration, while the subspecies *orestera* spills over from the Rocky Mountain region onto the High Plains. In Nebraska for example, *celata* occurs statewide, while *orestera* is known only from the Panhandle. Silcock and Jorgensen (2018) note that “Many fall migrants in the Panhandle are brightly colored, especially yellowish underneath, and have gray crowns and napes which contrast with the greenish-olive back, thus resembling Nashville Warblers without eye-rings. These are probably *orestera*.” At Chadron State Park (Dawes County, Nebraska), they mention that 11 *orestera* were banded in 2015 and 2016 between 17 September and 13 October. On 22 September 2015, six *celata* and five *orestera* were banded there. In eastern Colorado, both *celata* and *orestera* pass through during migration. Bailey and Niedrach (1965) considered *orestera* to be “fairly common in migration throughout [that] state” with *celata* “[seemingly] confined to the eastern counties.” In Oklahoma, *celata* occurs statewide and four specimens suggesting *orestera* have been taken in western and central Oklahoma eastward to Cleveland and Marshall Counties (Sutton 1967). In the Texas Panhandle, both *celata* and *orestera* occur. There, Seyffert (2007) states that “much variation in plumage may be observed, ranging from drab olive-gray for *celata* to olive-yellow for *orestera*.” In Kansas, *celata* is encountered statewide and *orestera* is said to occur in the west (Tordoff 1956, Johnston 1965). Exactly how far east *orestera* ranges is a topic of interest. Graber and Graber (1951) collected six specimens in extreme southwestern Kansas (Morton County) during the spring of 1950 and found them to be “rather bright, long-winged examples of the species, though only one, a male (RRG 446), is clearly of the western form *orestera*. The other birds, though large, appear to be intermediate in color between *celata* and *orestera*.” The Graber’s record of *orestera* is apparently Kansas’ earliest known and is presumably the basis for inclusion of that subspecies on Tordoff (1956) and Johnston’s (1965) checklists of Kansas birds.

Discrepancies in migratory timing between eastern and western Kansas further suggest that *orestera* passes through western Kansas. As pointed out by Seltman (1998) on Kansas’ birding listserv (KSBIRD-L), there are “quite a few late August records of Orange-crowned Warbler” in the “western third” and these are “probably birds coming down out of the Rocky Mts. of the race *V. c. orestera*.” Indeed, fall migration of *orestera* begins earlier, during August, whereas fall migration *celata* is notably late (Dunn and Garrett 1997). In eastern Kansas, where only *celata* is expected, Orange-crowned Warblers are rare before mid-September (eBird 2023). In the High Plains region that includes portions of Colorado, Nebraska, Kansas, Oklahoma, Texas, and New Mexico, fall migrants appear during late August and early September (Seyffert 2007, eBird 2023).

Perhaps less appreciated is the presence of very small numbers of *lutescens* Orange-crowned Warblers in the southern Great Plains during fall migration. In



eastern Colorado, approximately 25 fall reports have been accepted in eBird (2023) since 2011, nearly all between the middle of September and early October, with dates ranging from 15 September to 23 November. Over half are documented with photographs. Perusal of eastern Colorado, eBird (2023) data also suggests that between one and three accepted reports per fall might be typical there. Up to six reports were accepted during fall 2014 (eBird 2023). In spring, there are only four reports from Colorado with publicly accessible documentation with dates ranging from 28 April to 5 May (eBird 2023). In Nebraska, occurrence of *lutescens* has not been proven, although suggestive individuals have been reported during fall in both the west in Kimball County (2002) and the east in Lancaster County (in 2017; Silcock and Jorgensen 2018). In Oklahoma, one *lutescens* specimen was collected on 25 September 1933 in Cimarron County (Sutton 1967). Seyffert (2007) reported that in the Texas Panhandle “A few individuals have been reported of so pronounced a yellow that observers were led to speculate that they may have been the far western race, *lutescens*.” In Kansas, we are unaware of any report of *lutescens* to date, and none were apparent in the specimen collection housed at University of Kansas Museum of Natural History (M. Robbins, pers. comm.).

That *lutescens* would eventually be documented in Kansas is not surprising considering existing regional knowledge of Orange-crowned Warbler subspecies. That it happened during spring migration, however, is surprising. Nearly all regional reports of *lutescens* come from fall migration, when species breeding in the northern Rocky Mountain and Pacific Northwest region generally reach their maximum abundance in the Great Plains, presumably due to an eastward shift of their fall trajectories (e.g. Rufous Hummingbird, *Selasphorus rufus*; Cassin’s Vireo, *Vireo cassinii*; Townsend’s Warbler, *Setophaga townsendi*) (Goguen and Curson 2020, Healy and Calder 2020, Wright et al. 2020). It should also be noted that appearance of the SLPL during late March is well-before Orange-crowned Warblers normally return to the region, and is consistent with *lutescens* tendency for early spring migration along the west coast.

In summary, we report the first hypothetical occurrence for Kansas of an apparent *lutescens* Orange-crowned Warbler at Lake Scott. We encourage observers to watch for this subspecies, especially in the western counties where much remains to be learned about the status and distribution of Orange-crowned Warbler subspecies. Obtaining high-quality photographs of Orange-crowned Warblers there and uploading these to eBird (<http://ebird.org/home>) could enable further insights, as would banding studies, and scientific collections.

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