First record of Yellow-browed Warbler (*Phylloscopus inornatus*) for Mexico

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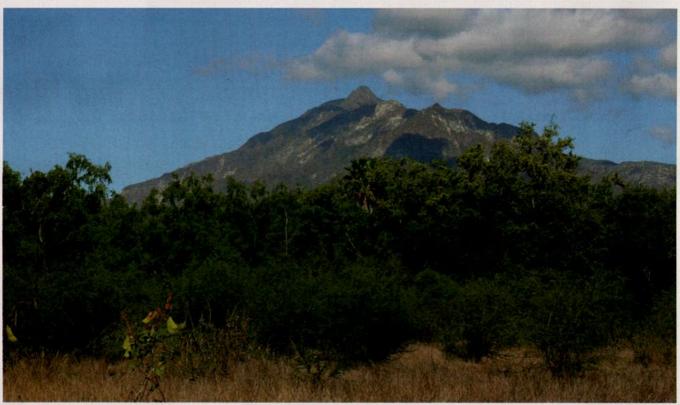


Figure 1. Typical Miraflores thornscrub woodland. This woodland is dominated by legumes in many areas, though some locations have a large live-oak component. Photograph by Steven G. Mlodinow on 25 March 2007.

Abstract

This paper documents the presence of a Yellow-browed Warbler (*Phylloscopus inornatus*) at Miraflores, Baja California Sur, Mexico from 25 March to 7 April 2007. A detailed description of the bird from field notes is provided, supplemented by photographs and a sonogram. The circumstances surrounding this bird's detection are discussed, as is its identification as a Yellow-browed Warbler. Finally, this record is put into context by reviewing Yellow-browed Warbler vagrancy in general and reviewing records of other *Phylloscopus* warblers in North America.

Miraflores

Miraflores is an agricultural village of approximately 1400 people near the foothills of the Sierra de La Laguna. It is at an elevation of approximately 200 meters and lies about 40 kilometers north of San José del Cabo and 40 kilometers inland from the Sea of Cortez. The habitat is predominantly a mixture of planted and fallow agricultural fields (including small mango and palm orchards), plus extensive patches of native thornscrub (see Figure 1). Trees of the legume subfamily Mimosoideae—including Sweet Acacia (Acacia farnesiana), Palo Eban (Chloroleucon mangense), and Guamuchilar (Pithecellobium dulce)—dominate

the native woodlands, but there is also a substantial live-oak (*Quercus* spp.) and hackberry (*Celtis* spp.) component. An arroyo that usually has water (in the form of a flowing stream or pools) skirts the village, and there are often small puddles of water in the fields and orchards from irrigation. Miraflores recently has become well known for harboring vagrant birds, including the Baja California Peninsula's first Streak-backed Oriole (*Icterus pustulatus*) in January 2006 (Erickson et al. 2006a) and a flock of eight Mississippi Kites (*Ictinia mississippiensis*) in October 2005 that furnished the Peninsula's second record (Erickson et al. 2006b).

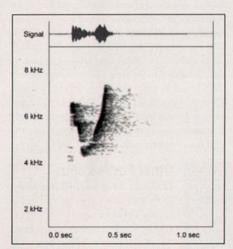


Figure 2. The Yellow-browed Warbler at Miraflores was recorded by Radamaker, yielding this sonogram. As is typical of Yellow-browed Warbler, the frequency exceeds 7 kHz; the call of a Hume's Leaf-Warbler hardly ever exceeds 6 kHz. Furthermore, the duration of 0.30 seconds is also typical of Yellow-browed but is, apparently, outside the range of Hume's. See Luijendijk (2001) for further details. Sonogram by Pierre Deviche and Kurt Radamaker.

Field encounters

On 25 March, at approximately 7:15 a.m. (about 40 minutes after sunrise), Mlodinow was pishing near the arroyo that runs past Miraflores. At this location, fallow fields and pasture meet relatively lush native thornscrub. The pishing rapidly attracted a large flock of passerines dominated by Orangecrowned Warblers (Vermivora celata) into a Guamuchilar. He had been pishing for about five minutes when a small whitish-bellied bird joined the commotion. It was only about ten meters away, and after a period of initial disbelief, Mlodinow recognized it as a Yellowbrowed Warbler. The Yellow-browed Warbler then disappeared and reappeared several times, providing about four minutes of actual observation time over a ten-minute period at distances of ten to 15 meters.

On 7 April, Kurt and Cindy Radamaker went to Miraflores hoping to relocate this bird and eventually found it around 12:00 p.m., fewer than 100 meters from where Mlodinow had originally discovered it. They watched it intermittently over a two-hour period in the dense foliage. It was often relocated by its habit of flicking its wings or hover-gleaning in a kinglet-like fashion.

Description

This was a small passerine with a kinglet-like jizz. It was noticeably smaller than the nearby Orange-crowned Warblers and appeared to be a bit larger than a Ruby-crowned Kinglet (Reg-

ulus calendula), though none of the latter were present for direct comparison. The bill was small and kinglet-like, with a pale pinkishflesh base that extended halfway out the mandible; the maxilla was dark. The tail was short, dark, and notched. The underparts were mostly an unstreaked dull white, but there was some yellow wash along the sides of the breast near the bend of the wing and on the undertail coverts. The back was uniform greenish olive, the exact brightness of which was difficult to judge. The crown was similarly colored and without any crown stripe. There was a bold, long, and yellow-washed supercilium that went from over the bill backwards nearly to the nape. The thickness of this supercilium was fairly uniform, without any obvious posterior flaring, and the two supercilia met over the eye. The eye looked dark. From the bill, through the eye, and to the rear of the auriculars was a narrow but prominent dusky line that was darker than the crown. The actual auriculars were moderately mottled in dusky or olive. Below the eye was a narrow whitish arc. The wings showed two bright whitish wingbars, with the upper wingbar not as thick or long as the lower but still readily apparent. The greater coverts between the wingbars were relatively dark (darker than the back). Similarly, the bases of the secondaries were quite dark,

forming a blackish bar behind the greatercovert wingbar (much as is seen in a Rubycrowned Kinglet). The secondaries otherwise were dark and narrowly edged in yellowish green that was brighter than the color of the back. The blackish tertials were edged brightly in white, with the white tips appearing as a white triangle or chevron at the end of each tertial. The tertial tips appeared whiter than the wingbars. The legs were dusky pinkish.

Mlodinow did not hear the bird call, but the Radamakers did hear it, and through a great deal of persistence, recorded it (Figure 2). The call was a high-pitched disyllabic upward-inflected tse-sweep. The pitch and cadence were much like the position-call of a male Pacificslope Flycatcher (Empidonax difficilis).

Identification

The bird's small size, bright wingbars, white tertial tips, and plain crown eliminate all species except Yellow-browed Warbler and Hume's Leaf-Warbler (*Phylloscopus humei*). Visual criteria for separating Yellow-browed and Hume's Leaf-Warblers are detailed by Baker (1997) and generally supported by the species' accounts in del Hoyo et al. (2006); these firmly point to its identification as a Yellow-browed Warbler, rather than a Hume's (see Figures 3-5):



Figure 3. Yellow-browed Warbler preening in a Guamuchilar at Miraflores, Baja California Sur, 25 March 2007. This pose shows the solid crown and face pattern typical of this species. Note also the pale proximal half to the mandible and somewhat pale legs. This photograph, and others taken on 25 March, portray a yellowish cast to the underparts that is an artifact of lighting. In real life, the bird appeared mostly whitish beneath. *Photograph by Steven G. Mlodinow.*

- 1) In Hume's, the upper wingbar is dull and often absent in worn (spring) plumage.
- The mandible in Hume's shows little or no pale, while the basal half is typically pinkish in Yellow-browed.
- Hume's has blackish-brown legs versus flesh-brown in Yellow-browed.
- Blackish basal color to tertials and wing coverts is typical of Yellow-browed but not of Hume's.
- 5) Secondary edges are more brightly colored than the back in Yellow-browed, most easily noted in moderately worn plumage.
- 6) The bold white edges to the tertials are typical of Yellowbrowed and would be unusual in Hume's, particularly in worn plumage.

Furthermore, analysis of the Miraflores bird's call identify it as a Yellow-browed Warbler. Luijendijk (2001) compared fall and winter call-notes of Yellow-browed and Hume's Leaf-Warblers. demonstrating that the call of Yellow-browed is higher in pitch and longer in duration than that of Hume's. Hume's rarely reaches a frequency higher than 6 kHz, but Yellow-browed almost always reaches a frequency of 7 kHz. Additionally, the typical call of Hume's is short and disyllabic, with the first syllable stressed and an obvious downward inflection on the second part, likened by Marshall J. Iliff (pers. comm.) to the huit call of Hutton's Vireo (Vireo huttoni). In contrast, the pitch, inflection, and duration of the Yellow-browed Warbler's call closely resemble those of a male Pacific-slope Flycatcher's call

(Heindel 2006), as noted by the Radamakers in the field. The sonogram made from the Radamaker's recording matches that of Yellow-browed Warbler not Hume's (Figure 2).

Differences between first-winter and basicplumaged adult Yellow-browed Warblers are very subtle and virtually disappear by spring (Baker 1997). Consequently, we were unable to determine the age of this bird.

Yellow-browed Warbler distribution

Yellow-browed Warbler breeds from the Ural

Mountains east to eastern Siberia and south to Mongolia, northern Manchuria, and possibly northern Korea (Baker 1997). It winters from central Nepal east to southeastern China and Taiwan and south to the Malay Peninsula and Vietnam (Baker 1997). Note that much of the normal wintering range is at the same latitude as Miraflores (23.35 N). Interestingly, Yellow-browed Warbler is one of the most numerous Siberian passerine vagrants to western Europe, with 2648 records between 1958

Figure 4. Yellow-browed Warbler at Miraflores, Baja California Sur, 25 March 2007. Here the bird shows its wing fairly well. Note the bold wingbars with a blackish base to the greater wing-coverts (forming a dark panel between the wingbars) and to the secondaries (forming a dark bar behind the second wingbar). Also note the bright greenish-yellow edges to the secondaries beyond this dark bar and bright white edge to the one visible tertial. Photograph by Steven G. Mlodinow.

and 1985 in Great Britain, almost all from fall (Dymond et al. 1989). Additionally, 81 had been found in Iceland through 2003 (Petursson and Kolbeinsson 2007). The few spring records from Britain and Ireland are from late March through early May (Vinicombe and Cottridge 1996), and del Hoyo et al. (2006) note that northbound migration in Asia begins during late March and early April.

The first North American record of Yellowbrowed Warbler came as recently as 23-24 September 1999 from Gambell, St. Lawrence Island, Alaska (Lehman 2000a, 2000b). The second North American record was also from Gambell on 30 August 2002 (Lehman 2005). Most interesting are two additional sightings from the fall of 2006: one photographed at Attu Island, Alaska on 21 September (Tobish 2007) and a sight record from Milwaukee County, Wisconsin on 21 October that has been accepted by the Wisconsin Bird Records Committee as a single-observer sight record and thus hypothetical (Svingen 2007).

Other Phylloscopus records away from Alaska

Only two other species of Phylloscopus warblers have been recorded in North America away from Alaska: Dusky Warbler (P. fuscatus) and Arctic Warbler (P. borealis). The breeding range of Dusky Warbler fits fairly well into the western half of the range of Yellow-browed Warbler, while its winter range is similar to that of Yellow-browed (Baker 1997). Dusky Warblers have been recorded ten times in California, all between 27 September and 3 November, and all but one record was coastal (Hamilton et al. 2007). There are also two records from the northern half of the Baja California Peninsula, 15 October 1991 and 20-23 October 1995 (Erickson et al. 2001). Interestingly, Dusky Warbler, like Yellowbrowed Warbler, has occurred predominantly as a fall vagrant in Beringia (Lehman 2005).

Arctic Warbler is a fairly common breeder in western and central Alaska (Heindel 2006), yet it has been recorded but seven times away from that state. There are four records from coastal central California spanning 7 September through 1 October (Hamilton et

al. 2007), plus records from Baja California Sur's Vizcaino Peninsula, 12 October 1991 (Pyle and Howell 1993) and the Canadian Arctic at Prince Patrick Island, Northwest Territories, 21 July 1949 (Godfrey 1986, Jantunen 2003).

Other Phylloscopus species from Alaska

The occurrence of Yellow-browed and Dusky Warblers south of Alaska, despite relatively few records from that state, suggests that it



Figure 5. Yellow-browed Warbler at Miraflores, Baja California Sur, 25 March 2007. This photo best illustrates the pinkish basal half to the mandible and pale legs/feet. *Photograph by Steven G. Mlodinow.*

would be worthwhile to look at the other species of *Phylloscopus* that have occurred in Alaska but have not yet been detected elsewhere on the continent. There have been two Wood Warblers (*Phylloscopus sibilatrix*): one on Shemya Island, 9 October 1978 (Gibson 1981) and one on St. Paul Island, 7 October 2004 (Tobish 2005). Willow Warbler (*Phylloscopus trochilus*) has been recorded once (Gambell, 25-30 August 2002; Lehman 2003), and Pallas's Leaf-Warbler (*Phylloscopus proregulus*) has been recorded once (Gambell, 25-26 September 2006; Lehman and Rosenberg 2007).

Discussion

Had this bird spent the winter locally or was it a northbound migrant? It was not seen in Miraflores during a January visit by Mlodinow and others, but it could easily have been missed. Furthermore, the Radamakers found the bird 13 days after Mlodinow, which seems like a long time for a migrant to remain in one place, especially during spring migration. Additionally, through-migrant passerines are thought to occur almost exclusively during fall in southernmost Baja California Sur (Erickson and Howell 2001). On the other hand, Mlodinow found many more passerines at

Miraflores during March 2007 than during January 2007 (S. Mlodinow, unpubl. data).

This local increase in passerine numbers could be due to the arrival of northbound migrants, but it could also be the result of local movements. Insight can be gained by examining the region's climate. Precipitation and humidity in the Cabo San Lucas/La Paz region peak in August and September and reach their nadir from March through May (International Station Meteorological Climate Summary, version 4.0). Consistent with these data, southernmost Baja California (from La Paz southward) appeared distinctly more verdant in January 2007 than during March (Mlodinow, pers. obs.). This seasonal variation in precipitation would likely lead to a decline in the availability of moist habitats as winter progresses into spring. Consequently, it is quite conceivable that insectivorous and frugivorous passerines would be more widely distributed during early winter and midwinter, later concentrating in the remaining moist areas as

the surroundings become more arid. The concurrent bloom of the thornscrub trees (including Pithecellobium dulce and Acacia farnesiana) at these oases, with its attendant invertebrates, would provide a particularly attractive food source. A similar phenomenon appears to take place in southeastern Arizona's deserts, where willows (Salix spp.) bloom in March, suddenly attracting both vagrant and regularly occurring passerines (W. Russell, pers. comm.). While southern Baja California Sur's aridity during spring might concentrate locally wintering birds, it would also make the region unattractive to migrants, especially as they would have to cross open water for a relatively small target. For any individual bird, such as this Yellow-browed Warbler, no determination can be made, but given the details described above, it seems quite likely the bird had wintered nearby and was not a mi-

Was the Miraflores Yellow-browed Warbler part of a larger phenomenon? The two Yellow-broweds found during fall 2006 would suggest so, at least for that species. Furthermore, Great Britain also had an unusual number of Yellow-browed Warblers during fall 2006, with 526 reported, the fourth highest total in the past 20 years (L. Evans, UK400

Club master database). On the other hand, there was not an unusual number of Siberian passerines in general found on mainland North America during the fall and winter of 2006 (P. E. Lehman, T. Tobish, G. McCaskie, R. A. Erickson, pers. comm.). Consequently, it seems that the Miraflores Yellow-browed Warbler was part of an unusual year for vagrancy in that species, but it was not part of a phenomenon that increased passerine vagrancy from Siberia to mainland North America as a whole.

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