

FIRST RECORDS OF THE WHITE-WINGED JUNCO FOR CALIFORNIA

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The White-winged Junco (*Junco [hyemalis] aikenii*) is a United States endemic with a limited range and few acceptable extralimital records. Two of these extralimital records have been in California in recent years, thus adding a taxon to the list of birds recorded in the state. The first of these records was of a bird photographed at a feeder at San Rafael, Marin County, December 1990–23 March 1991 (Yee et al. 1991a, 1991b). The second record was of a bird observed at Lake Tamarisk, Desert Center, Riverside County, 3 November 1996 (McCaskie 1997). Even though each of the taxa discussed are currently recognized (A.O.U. 1983) as subspecies or subspecies groups of the Dark-eyed Junco (*Junco hyemalis*), for clarity's sake we use common names for their distinct forms.

The White-winged Junco at San Rafael was first noted by Carter L. Faust in December 1990 as it visited his feeder with a small flock of Oregon Juncos (probably *J. h. shufeldti* and *J. h. thurberi*). This bird was seen regularly over the next month by Faust but was not confirmed as a White-winged Junco until 28 January 1991 by Stallcup, and subsequently by Bailey on 14 March 1991. On these occasions, the White-winged Junco was carefully studied at close range and was photographed (Figure 1). The following characters were critical in diagnosing this bird as California's first record of this taxon: (1) the narrow, complete, bilaterally symmetrical white wingbars, (2) the overall blue-gray plumage, lacking any black tones, (3) the excessive white in the lateral rectrices, (4) the white terminal tail band, and (5) the large size overall and large bill. The following description of this bird was edited from an account written by Bailey (with some additions to the description from notes taken by Stallcup):

The White-winged Junco could be picked out easily by its big white tail flash at a distance of at least 15 m, even when one was not looking directly at the bird. It was an obvious junco. In direct comparison with the accompanying Oregon Juncos, it was clearly larger and especially longer and less compact in shape. Most obviously longer was the tail. The legs were also obviously longer; the White-winged stood taller than any of the perhaps 20 Oregon Juncos present. The head and body looked a little larger. When I thought to look at the bill, it was definitely somewhat larger than that of any of the Oregons' bills, especially the maxilla. It was about the same sharp-tipped conical shape as the Oregons' bills, or maybe a bit longer in proportion. The bill was all whitish-pink. The eyes were dark. The long, slender tarsi were pale, but I did not note their exact color.

Except for the wingbars and tail, the White-winged Junco was colored like a male Slate-colored Junco [i.e., a male *J. h. hyemalis*], but paler. The overall color was a medium-pale gray with absolutely no brownish tones in any light conditions but instead a slight bluish cast in some lights. This color covered the upperparts and most

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Figure 1. White-winged Junco (*Junco [hyemalis] aikeni*) at San Rafael, Marin County, California, 28 January 1991.

Photograph by Rich Stallcup

of the head, throat, breast, sides, and flanks. It gradually darkened into the face, so that the loreal region (and perhaps the chin) was quite dark gray though not black. The belly, vent, and undertail coverts were white. The boundary between the white belly and the gray breast, sides, and flanks curved in a high arc (convex upward), similar to the pattern on a Slate-colored Junco, although the gray may have come slightly lower on the lower breast. The gray flanks looked more extensive than on a Slate-colored.

The wings, both coverts and remiges, were a good shade paler than expected in a Slate-colored Junco, and this color was a flat gray. Each greater and median secondary covert was neatly tipped in white, forming a pair of narrow white wingbars on each wing. These were clear when the bird was seen well. Against the flat, rather pale gray background color the pair of narrow white wingbars did not contrast strikingly; wingbars of that strength would have been more noticeable against the darker background color of a Slate-colored Junco's wing. The wingbars were bilaterally symmetrical.

The tail had about twice as much white as an Oregon Junco's tail. There were perhaps four white rectrices on each side of the tail. On one occasion when the tail did not fold completely, the right side was largely exposed and it looked (to the naked eye) completely white except for the completely dark central rectrices. A narrow white tip crossed the tail because the tail tip was slightly forked and the central rectrices (one or two pairs) were slightly shorter than all of the white rectrices. Thus from a dorsal view the white of the longer rectrices showed just past the tips of the dark central rectrices. From a ventral view the tail looked completely white.

The Desert Center White-winged Junco was observed (using binoculars) by Patten and Jutta C. Burger at close range (to 5 m) from 0930 to 0950 PST under excellent conditions (clear and $\pm 75^{\circ}$ F, with a steady Beaufort 2 northwest wind). The bird was with a flock that included ± 25 Oregon Juncos

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(probably *J. h. montanus* and *J. h. thurberi*), one male Slate-colored Junco (*J. h. hyemalis*), a few Savannah (*Passerculus sandwichensis nevadensis*) and White-crowned (*Zonotrichia leucophrys gambelii*) sparrows, and a single Song Sparrow (*Melospiza melodia*, probably *M. m. fisherella*). Numerous other Oregon Juncos, two additional Slate-colored Juncos, two Gray-headed Juncos (*J. h. caniceps*), and a single Pink-sided Junco (*J. h. mearnsi*) were also observed at Desert Center on 3 November 1996 (Patten pers. obs.). The following description of the White-winged Junco is taken from Patten's field notes:

The White-winged Junco was substantially larger (bigger, bulkier, and longer-tailed) than all of the other juncos present. Even more striking was the bird's larger, heavier bill (it was a bit longer and distinctly deeper than a "typical" junco bill). The bill was uniform pink and had a straight culmen. The irides were dark. The plumage was highly distinctive. The overall coloration was a *uniform* soft mouse-gray (with a slight bluish-gray cast) throughout the head, mantle, wings, uppertail, breast, and flanks. There was absolutely no darkening on the lores or around the eyes (i.e., unlike on *caniceps* and *mearnsi*), and the head and breast were not even close to the dark slate-gray of a Slate-colored Junco (i.e., the overall gray shade was more like that of a *caniceps*, although slightly paler than even that). There was absolutely no contrast between the mantle and wings and the head and breast. There were bold white tips to the median coverts, forming distinct upper wingbars. The greater coverts were tipped with pale whitish-gray, such that at some angles (e.g., when it was on the ground) the lower bars did not stand out, but at others (e.g., when it was perched eye-level in a *Nerium oleander*) the lower wingbars were quite evident. The tail was extensively white; the three outermost rectrices on either side of the tail appeared to be wholly white, and rectrix 3 on either side appeared to be mostly white. Indeed, in flight and on the ground, this bird looked like it had a white tail with a dark stripe (i.e., its central rectrices) running down the center. The central belly and undertail coverts were clean white, with this white meeting the gray in a smooth, inverted U shape. Its call was a typical junco "tip" note.

The Desert Center bird was also observed in the afternoon of 3 November 1996 by Vernon Howe and Andrew Howe, but it could not be relocated on subsequent days, despite considerable effort (R. A. Erickson pers. comm., G. McCaskie pers. comm.). Although the White-winged Junco winters regularly west to southwestern Colorado (see below), the Desert Center record corresponded with exceptionally high numbers of them in that region during the winter of 1996/1997 (T. Leukering in litt.). A 10 October–2 November 1996 report from Cheyenne, Wyoming (Truan and Percival 1997), and a February 1997 report from western Texas (*fide* T. Leukering) also fit this pattern, although the latter lacks sufficient documentation (G. W. Lasley pers. comm.).

DISTRIBUTIONAL SUMMARY

The White-winged Junco has an extremely restricted breeding range, being basically confined to the Black Hills region of South Dakota. Specifically, it breeds in the Rosebud Mountains and Long Pine Hills of southeastern Montana, in the Black Hills, Short Pine Hills, and Custer in southwestern South Dakota, in the Bearlodge Mountains, Sundance, and Black Hills in northeastern Wyoming, and in the Pine Ridge of northwestern Nebraska

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(A.O.U. 1957, Rising 1996). White-winged Juncos regularly winter throughout their breeding range and south through southwestern Colorado (Andrews and Righter 1992), north-central New Mexico (Hubbard 1978), and western Oklahoma and western Kansas (A.O.U. 1957), and east to central South Dakota (Rising 1996). They are more scarcely recorded at this season in central Kansas and central Oklahoma (Rising 1996).

There are few extralimital records of the White-winged Junco, and "almost no instances of migration out of the plains and Rocky Mountain regions that are based on critically determined specimens" (Miller 1941:346). However, it has been recorded once in Texas (a specimen from Briscoe County), it has been reported from Tennessee (Rising 1996:230), central Nebraska (A.O.U. 1957), and south-central Wyoming (Truan and Percival 1997), and there is a putative report from Massachusetts (Harlow 1995).

Most of the Rocky Mountains, there are at least nine records for Arizona, with most in a single winter: a minimum of seven birds, six collected and one banded, were located from 21 November 1936 through 26 February 1937 in northeastern Arizona, particularly around Flagstaff, Coconino County (Hargrave et al. 1939). Since that winter, there have been but two records (Monson and Phillips 1981): one was collected 23 February 1971 at Flagstaff (Russell P. Balda; specimen at the Museum of Northern Arizona), and one was observed 13–14 November 1971 at Roll, lower Gila River, Yuma County (Amadeo M. Rea).

Aside from the two California records we present, the only other record of *aikeni* for western North America is of one photographed 25 February–7 March 1987 at a feeder in Bend, Oregon (Crabtree 1987, Gilligan et al. 1994). Although the bird may occur in Utah (Behle and Perry 1975, Behle et al. 1985), there are no definite records (Ella D. Sorenson pers. comm.); thus, the single published sight record for that state (near Soapstone, Summit County, 15 August 1960) is best treated as hypothetical (Behle 1985:115).

IDENTIFICATION SUMMARY

When all characters are considered together, the White-winged Junco presents a relatively straightforward field identification. Also, the White-winged Junco is less sexually dimorphic in both size and coloration than any other junco in the United States (Rising 1996:228), reducing the need for consideration of intersexual variation. The White-winged Junco is most similar to the nominate Slate-colored Junco (and to the similar *J. h. carolinensis* of the Appalachian Mountains) in overall plumage pattern and coloration, in that both are largely uniform gray, without a contrasting head or back. However, the White-winged differs significantly and consistently from the Slate-colored in several key ways; indeed, Miller (1941:346) noted that "In spite of the approach of *J. h. hyemalis* and *aikeni* in all essential points of difference, the absence of any consequential overlap in a large number of characters precludes the possibility of confusion of the two forms when all of them are considered. I have yet to examine an equivocal specimen, so far as these two forms are concerned. Their status as distinct species seems entirely satisfactory."

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These plumage differences led Hargrave et al. (1937) to remark that “in life *aikeni* much more closely resembles *caniceps* than it does either *hyemalis* or *mearnsi*, and that any competent observer familiar with the species mentioned here can properly distinguish all under normal field conditions.” This statement probably stemmed from the pale gray head, breast, and flank coloration of *caniceps*, which matches *aikeni* better than does the dark slate coloration of *hyemalis*. The cool bluish-gray of head coloration of *mearnsi* is probably a better match still, although *aikeni*, unlike *mearnsi*, *caniceps*, and *dorsalis*, shows little to no blackish darkening in the lores. A review of specimens revealed that this mark is variable, with some *aikeni* showing a faint dark mask, and others have a concolorous head. The San Rafael bird showed some loreal darkening, but the Desert Center bird showed none. Such differences did not appear to be related to sex, but more work is needed to be certain.

Also unlike any Oregon, Gray-headed, Red-backed (*J. [h.] dorsalis*), Pink-sided, or *henshawi* [= *cismontanus*] Slate-colored junco, White-winged Juncos usually do not show brown or rust coloration in the back, although a hint of this color may be present, especially on immature females (T. Leukering in litt., B. E. Webb in litt). Like the Gray-headed, male *hyemalis* and *carolinensis* Slate-colored, and Red-backed juncos, the White-winged Junco always shows gray flanks that do not contrast with the breast and head. Only the nominate and *carolinensis* Slate-colored Juncos combine the concolorous gray mantle, head, breast, and flanks, and the distinctly contrasting white belly and undertail coverts, that *aikeni* shares. The White-winged Junco further shares the all-pink bill and white belly meeting the gray breast in an inverted U.

The White-winged is the largest of all juncos in the United States, surpassing even the Pink-sided in overall size and bulk. Thus, *aikeni* is much larger than *hyemalis*, a feature especially evident in direct comparison. Aside from overall bulk, the best size distinctions are the proportionately longer tail of *aikeni* and the distinctly longer, straighter, deeper bill of *aikeni* (Miller 1941, Rising 1996).

The most consistent plumage distinctions between the White-winged and Slate-colored juncos are (1) the overall pale bluish-gray coloration of *aikeni*, in contrast to the much darker, slate-gray of the aptly named Slate-colored Junco (e.g., the illustration of *hyemalis* on Plate 23 of Byers et al. 1995 is much too pale gray), (2) the narrow white wingbars of *aikeni* (but see below), and (3) the more extensive white in the tail of *aikeni*. With regard to this last point, the extent of white on rectrices 3 and 4 (with rectrix 6 being the outermost on each side) is the key. Rectrix 4 is typically uniform white (or nearly so) in *aikeni*, but with much more blackish (especially on the outer web) in *hyemalis* (Rising 1996:225), such that in *hyemalis* at most 80% of this feather is white (Figure 2). Only 2% of *hyemalis* show white on rectrix 3 (and then usually only at the tip), whereas 94% of *aikeni* show white along the shaft (Figure 2; Miller 1941:346, Rising 1996:225).

The most problematic aspect of field identification is occasional white tips to the secondary coverts on other juncos. The frequency of white “wingbars” on other juncos ranges anywhere from 1% in the Oregon (*J. h. thurberi*; Miller 1941:277) to 1.8% in the Pink-sided (Miller 1941:347) to 3% on the

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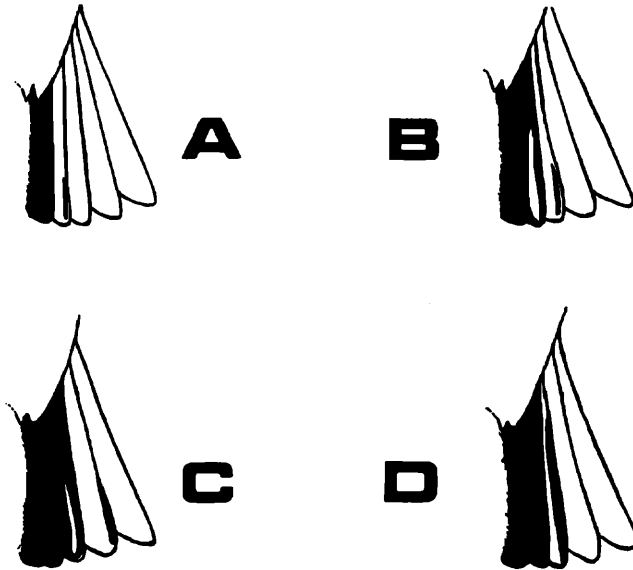


Figure 2. Tail patterns of the White-winged (*Junco [hyemalis] aikeni*) and Slate-colored (*J. h. hyemalis*) juncos. (A) Typical White-winged Junco, especially males. (B) Dark extreme for the White-winged Junco. (C) Typical female Slate-colored Junco. (D) Typical male Slate-colored Junco.

Slate-colored (Miller 1936, 1941:346); they also have been noted on the Gray-headed Junco (Killpack 1986). Aside from *aikeni*, "white tips on the wing coverts occur more frequently in *hyemalis* than in any other form" (Miller 1941:315). Conversely, about 12% of White-winged Juncos (especially females) lack white wingbars, and about 5% have only one obvious wingbar, on the middle coverts only (Miller 1941:347). If white is absent, *aikeni* shows light gray margins to these feathers, unlike *hyemalis* (Miller 1941:346); such birds can still be identified as *aikeni* by overall size and color, bill size and shape, and tail pattern (Figure 2). Few if any *aikeni* have broad bright wingbars like those shown in some field guides (e.g., Pough 1949, Robbins et al. 1983).

A Slate-colored Junco with white wingbars can give the impression of a White-winged Junco (Killpack 1986, Rising 1996), leading to misidentifications (e.g., Robbins and Easterla 1992:345-346); conversely, an *aikeni* lacking white wingbars may be mistaken for a *hyemalis*. Both Killpack (1986) and Robbins and Easterla (1992:346) published photographs of Slate-colored Juncos with white wingbars, and Rising (1996, Plate 20) included an illustration of one. The cases discussed by Killpack (1986) and Robbins and Easterla (1992) involved mist-netted birds studied and verified to be aberrant Slate-colored Juncos by their overall darker slate-gray coloration, less white in their tail, and smaller size. The authors in each case

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emphasized the dangers of relying only on the presence of white wingbars for identification, with Robbins and Easterla (1992:346) further stating that *hyemalis* can have “white-tipped wing coverts (giving the appearance of wing-bars) and an unusual amount of white in the tail.” As discussed above, there exists plenty of evidence for white tips to the wing coverts on *hyemalis*, but we question the basis for the statement about the “unusual amount of white in the tail” because it does not match Miller’s (1941) analysis or the identification criteria provided by Rising (1996). For example, a specimen at the Natural History Museum of Los Angeles County (LACM 90805) is a male *hyemalis* with white wingbars taken 30 November 1976 at Gaithersburg, Maryland. Despite the wingbars, the tail pattern is distinctly that of *hyemalis*: rectrices 5 and 6 are white, but a mere 30% on the vane of the inner web of rectrix 4 is white.

Thus, a combination of overall size (preferably in direct comparison with other juncos), tail length, bill depth, overall coloration, the presence of white wingbars, and the extent of white in the tail ought to serve as conclusive identification criteria for the White-winged Junco.

ACKNOWLEDGMENTS

Carter L. Faust kindly allowed Stallcup and Bailey to see the junco in his yard. Kimball L. Garrett (Natural History Museum of Los Angeles County) and Philip Unitt (San Diego Natural History Museum) facilitated access to junco specimens in their care. Richard A. Erickson provided useful discussion and references to pertinent literature. Greg W. Lasley and Ella D. Sorenson supplied information about White-winged Junco records in Texas and Utah, respectively. The paper benefitted from thoughtful reviews by Tony Leukering, Philip Unitt, and Bruce E. Webb.

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Accepted 2 November 1997