

A PARTLY ALBINO WILSON'S WARBLER (*Wilsonia pusilla*)

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On 20 September 1995 at 11:15 MST, during routine mist-netting for a study investigating the use of the middle Rio Grande riparian habitat by migratory land birds at Rio Grande Nature Center, Bernalillo County, New Mexico, we were surprised to discover a light yellowish warbler in one of the nets. After careful examination and comparison, the bird was identified as a hatching-year (by incomplete skull ossification) Wilson's Warbler with albino plumage. The sex was not determined.

This is the first documented occurrence of albinism in Wilson's Warbler in the United States to our knowledge. The species is not listed in the Gross (1965) compilation of albinism in North America birds. The body plumage of the bird was light yellowish, and the primaries, secondaries, and rectrices were whitish with a small amount of light yellow at the edges and the irides appeared completely black (Photo 1). The bird otherwise had no dark or black color, except that the head had an illusive hint of contrast between the crown and the sides of the head reminiscent of a normal male Wilson's Warbler (Photo 1). No obvious or unusual wear on the body plumage, primaries, or rectrices was observed. The bill and feet of the bird were pinkish and the skin was light pink. The bird was small and body mass was low (wing chord 54 mm, tail 47 mm, and body mass 6.2 g) compared to normal hatching-year Wilson's Warblers (wing chord 55.8 ± 1.8 (SD) mm, tail 49.5 ± 2.5 mm, and body mass 7.3 ± 0.6 g, $N = 1,067$, Yong unpubl. data). The bird was banded, photographed in the hand, and released about one hour after capture. The bird was not recaptured or seen again, despite continuous netting and survey of the area through the fall migration season.

The capture site is a riparian forest (bosque) along the Rio Grande within the city limits of Albuquerque. The habitat is dominated by Rio Grande cottonwood (*Populus fremontii* var. *wislizeni*) with Russian olive (*Elaeagnus angustifolia*) dominating the understory. This area is an important stopover site for many neotropical migratory land birds, especially during fall migration (Finch et al. 1995, Yong et al. 1995). A banding program was established at this site in 1979 by Rio Grande Bird Research Inc. About 30,000 land birds including approximately 2,000 Wilson's Warblers were captured from 1979 to 1994, and this is the first albino warbler encountered.

The colors of birds result from deposition of pigments, mainly melanins and carotenoids, in integumentary structures, chiefly the feathers (Ralph 1969). Albinism is caused by the reduction or absence of pigment. Four types of albinism have been identified in birds, including total albinism, when pigment is completely absent; incomplete albinism, when pigment is completely absent from the plumage, or irides, or skin, but not from all three; imperfect albinism (leucism or dilution), when pigment is reduced or diluted in any or all three areas, but never completely absent from anyone; and partial albinism, when pigment is completely or partially absent from localized areas (Pettingill 1970). In total albinism, the feathers' structure reflects light, giving white. In imperfect albinism, if only a single pigment is lacking, e.g., the melanins, a bird may change its color from a dark to a light yellow, retaining only its carotenoid pigments (Welty 1982). The skin without pigment will have a light red or pink color, owing to the blood showing through from the capillaries. The abnormal Wilson's Warbler in this case could be a combination of leucism and partial albino because the bird had diluted yellow pigment on the body plumage, blackish irides, but whitish wing and tail feathers, a pinkish bill, and pinkish feet and skin.

Gross (1965) studied the incidence of albinism in North American birds and compiled a list of 1,847 albino sightings or specimens of 304 species of 54 families. Sage (1963) recorded 3,134 albinos in Great Britain birds of 163 species of 42 families. Both studies found complete albinism was not common in birds. Gross found that the incidence of albinism was much greater in certain species such as American Robin (*Turdus migratorius*), House Sparrow (*Passer domesticus*), American Crow (*Corvus brachyrhynchos*), Red-winged

Blackbird (*Agelaius phoeniceus*), and Mallard (*Anas platyrhynchos*). Sage (1963) observed that species with the highest incidence of albinism were either social in their breeding habitats or fairly sedentary.

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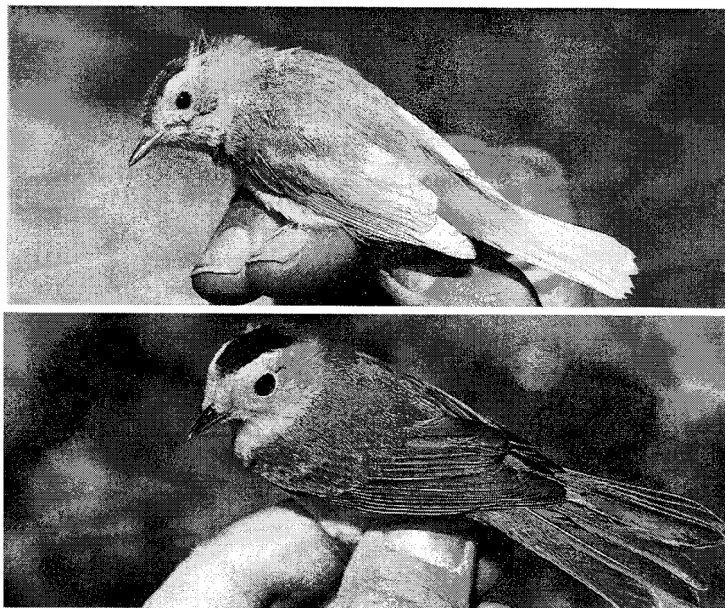


Photo 1. Comparison of the albino (top) and regular hatching-year male (bottom) Wilson's Warblers. The two birds were photographed at same time on 20 September 1995 at Rio Grande Nature Center, Bernalillo County, New Mexico.

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