Leucism in a Glittering-bellied Emerald Chlorostilbon lucidus (Apodiformes: Trochilidae) and a Bay-winged Cowbird Agelaioides badius (Passeriformes: Icteridae) in southern Brazil

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Birds generally may present six types of chromatic aberration: melanism, leucism, albinism, schizochromism, carotenism and dilution¹. These may be caused by differences in gene expression² and/or mutations in alleles³. Leucism is the most common chromatic aberration in birds, and it is commonly confused with albinism. It differs in maintaining the normal colors in regions such as skin, beak, eyes and feet, affecting only the feathers⁴. Cases of total and partial leucism and other anomalies have been documented for many species of birds, in wild and captive populations, presenting a wide variation in the patterns and places of the body where it occurs^{5,6}.

On 18 November 2012 a leucistic adult male *Chlorostilbon lucidus* (Shaw, 1812) (Figure 1) was spotted singing inside a small clump of *Baccharis uncinella* D.C (Asteraceae), in the city of Clevelândia, Paraná, Brasil (26°23'17.97"S, 52°24'51.08"W). It had mutant whitish plumage on its head, extending from the front to the pileum. This is the first record of leucism in *C. lucidus* in the state of Paraná. On 30 March 2013 one individual of *Agelaioides badius* (Vieillot, 1819) with leucism (Figure 2) was sighted foraging with other normal individuals of the species, in the vicinity of a cattle shed, also in the municipality of Clevelândia. The bird had mutations in the primary and secondary remiges, these being in a lightcolored tone, almost white.

Chromatic aberrations in birds of the Trochilidae family are uncommon, with only a few records known, for example, one leucistic Eupetomena macroura (Gmelin 1788)7.8. Leucism cases in Passeriformes are common and have already been observed in the species Turdus rufiventris (Vieillot 1818)9,10, Sporophila angolensis (Linnaeus 1766)¹¹, Volatinia jacarina (Linnaeus 1766)¹², among others. In general, birds with chromatic anomalies tend to have a shorter lifespan, becoming more visible to predators because of the striking plumage¹³. Some albino birds tend to suffer in intraspecific conflicts, being persecuted by normal individuals of their own flock, as observed in Nannopterum brasilianus (Gmelin 1789)14. The same may occur with leucistic individuals, as observed in the species Paroaria coronata (Miller 1776), where the individual with this anomaly did not interact with others of the same species¹⁵.

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Figure 1. Male adult individual of Glittering-bellied Emerald (*Chlorostilbon lucidus*) with partial leucism. Author: João Vitor Andriola, 2012.



Figure 2. Bay-winged Cowbird (*Agelaioides badius*) with partial leucism. Author: João Vitor Andriola, 2013.