Brazilian Journal of Biology
ISSN 1519-6984 (Print)
ISSN 1678-4375 (Online)

https://doi.org/10.1590/1519-6984.218532
Notes and Comments

First record of leucism for the Toco Toucan, *Ramphastos toco* (Piciformes: Ramphastidae)

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Received: January 12, 2019 – Accepted: July 18, 2019 – Distributed: August 31, 2020
(With 1 Figure)

Several factors can alter bird coloration patterns (Guay et al., 2012) and reports exist for different groups of birds (e.g. Urcola, 2011; Cadena-Ortiz et al., 2015). Regarding the different types of color alterations, leucism (Grouw, 2006) appears to be the most common type. Despite being the most common color pattern alteration in birds, no record was made for this species, the Toco Toucan (*Ramphastos toco*) (Muller, 1776).

The family Ramphastidae comprises about 50 species distributed in 5 genera, whose distribution is restricted to Central and South America. They have a long, narrow and brightly colored beak with either small or large serrations (Short and Horne, 2019). To our knowledge, to date, only three cases of leucism have been recorded for this family, being these species *Andigena hypoglauca* (Gould, 1833), *Aulacorhynchus haematopygus* (Gould, 1835) and *Pteroglossus torquatus* (Gmelin, 1788) (Cadena-Ortiz et al., 2015). Additionally, a distinct type of leukosis aberration, called schizochroism, occurs in *Pteroglossus erythropygius* (Gould, 1843) (Hosner and Lebbin, 2006).

Here, we report the first time a case of leucism in the Toco Toucan. The record was made on 04/04/2013 in an urban area of Brasília (area with predominance of grasses, roads and spaced trees), Brazil (15° 48' 39.75" S 47° 51' 59.37" W). The Toco Toucan has a distinct coloration, with the body being predominantly black, while the chat, throat and rump are white, and red undertail coverts (Sick, 1984). According to the spotting pattern of the individual observed (Figure 1), we can state that it exhibits partial leucism, because the pigmentation of the eye was normal and the black portion of its body had white spots, indicating that the pigment is produced, but is not properly deposited in the feathers (Grouw, 2006).

Wild birds with some type of alteration in their color patterns are common, and there has been an increase in the number of reports (Carbó-Ramírez et al., 2011). This increase in recordings may be related to the increased number of observers and the advent of the technology for image capture (Fuentes and González-Acuña, 2011). Additionally, this may also happen due to the increase in the number of aberrations in animal colorations, which may be related to the an expanded degree of isolation of the populations and endogamy (Bensch et al., 2000; Grouw, 2014), exposure to chemical substances (Ellegren et al., 1997), or radiation (Møller et al., 2013).

The detection of leucistic individuals is considered difficult because these animals are more visible to predators and, consequently, more easily preyed upon (Møller and Mousseau, 2001). In addition, such changes in coloration

Figure 1. Partial leucism in Toco Toucan individual from an urban area of the Federal District, Brazil. Partial leucistic (Top) and Normal (Bottom), for comparison.

may prevent reproduction for individuals (e.g. Blohowiak and Siegel, 1983; Parker et. al. 2003) or even hinder their regulation of body heat, considering that it is a large black bird (see Konter 2015). It is speculated that, due to an ever-increasing urban expansion (Seto et al., 2012), urban reports (such as in this case) may indicate a decrease in the predation pressure (Shochat et al., 2004), which in turn may lead to an increased survival rate of individuals with this type of alteration in their coloration (Gonçalves et al., 2008). Thus, the rarity of this event makes these records relevant.

Acknowledgements

We are grateful to Lorrayne Dias who made the registration and made the photo available for publication.

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