

NEW RECORD OF ERYTHRISM IN *Psittacara leucophthalmus* (Statius Muller, 1776) (PSITTACIFORMES: PSITTACIDAE) IN SOUTHERN MINAS GERAIS STATE, SOUTHEASTERN BRAZIL

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Abstract. The scientific literature mentions that neotropical birds of the family Psittacidae have some tendencies to natural and artificial changes (human food or manipulation) in their plumage colours. In studies of plumage aberrant of the parrots were categorized six types: albinism, erythrism, leucism, xantocroism, cyanism and melanism. We present a register of erythrism in species of Brazilian native parrot *Psittacara leucophthalmus* (Statius Muller, 1776). On the world, there is only one report of this type of aberrant plumage for *Amazona aestiva* (Linnaeus, 1758) and another to an African species *Agapornis roseicollis*, thus highlighting the importance of this record.

Key-words: Bird, Parrot, Aberrant plumage.

Resumo. Registro de Eritrismo em *Psittacara leucophthalmus* (Statius Muller, 1776) (Psittaciformes: Psittacidae), para o sul do Estado de Minas Gerais, sudeste brasileiro. Na literatura é mencionado que as aves neotropicais da família Psittacidae possuem algumas tendências a alterações naturais e artificiais (manipulação humana alimentar ou genética) na coloração de suas plumagens. Em estudos de aberração de plumagem em Psitacídeos foram categorizados seis tipos: albinismo, eritrismo, leucismo, xantocroismo, cianismo e melanismo. Apresentamos aqui um registro de eritrismo em espécie de Psitacídeo nativa brasileira *Psittacara leucophthalmus* (Statius Muller, 1776). Há apenas um relato deste tipo de plumagem aberrante para *Amazona aestiva* (Linnaeus, 1758), e um para a espécie africana *Agapornis roseicollis*, destacando assim a importância deste registro.

Palavras-chave: Ave, periquitão, plumagem aberrante.

Psittacara leucophthalmus (Statius Muller, 1776), locally known as “Periquitão”, is one of the eighty-seven species of the Psittacidae family currently registered in Brazil (PIACENTINI *et al.*, 2015). The species belonged to the genus *Aratinga* (CBRO, 2011), and is currently the only representative of the *Psittacara* genus (CBRO, 2014). According to SICK (1997), *P. leucophthalmus* occurs from the Guianas to Argentina, and is spread in almost all of Brazil. The

specie is green-headed with some red feathers on the sides of the head and neck, yellow underwing-coverts, and individuals measuring approximately 32 cm in size.

In the literature, it is mentioned that the Neotropical birds of the Psittacidae family have some tendencies to natural and artificial changes (human food or manipulation) in the coloring of their plumages (SICK, 1997; NEMÉSIO, 1999; SMITH & RÍOS, 2017). In a study of aberrant plumages in Psittacids, TEIXEIRA (1985) classified these variations into six terms: albinism, erythrism,

leucism, xantocroism, cyanism, and melanism.

On September 30, 2017, at the campus of the Federal University of Lavras (UFLA), in Lavras county, southern of Minas Gerais State, Southeastern of Brazil, we visualized a flock of *Psittacara leucophthalmus*. Among the birds, there was one prominent individual with non-standard plumage, presenting a predominant yellow color, and red feathers on the head and on the upper wing coverts, with remnants of the right side still conserving some of the characteristic green color of the species (Figure 1).



Figure 1. Record of erythrism in *Psittacara leucophthalmus* (Statius Muller, 1776) at the Federal University of Lavras (UFLA) Campus, Lavras, southern of Minas Gerais state, Southeastern of Brazil. A = *P. leucophthalmus* with plumage of normal color next to the individual with erythrism; B = *P. leucophthalmus* with erythrism in the dorsal view; C = *P. leucophthalmus* with erythrism next to two individuals with normal colored plumage; C = *P. leucophthalmus* with plumage of normal color next to the individual with erythrism (Photos by Marco Aurélio L. Fontes).

The landscape of the UFLA campus is composed by fragments of Semideciduous Seasonal Forest, *Eucalyptus* sp. and *Pinus* sp. plantations, built-up areas (buildings, sheds, avenues, greenhouses), experimental pastures, cropland-sand orchard, gardens and ponds. The record of the flock of *P. leucophthalmus* was obtained in an area of experimental corn cultivation, just after the harvest, where the “straw” covered the soil (21°13'29.92"S/44°58'23.14"W, 922 m altitude) (Figure 2). The climate of the site, according to Köppen climatic classification is Cwa, with average an-

nual precipitation of 1,529.7 mm and average annual temperature of 19.4 °C (ALVARES *et al.*, 2013).

We refer to this record as an example of erythrism, which according NEMESIO (1999) is a plumage aberration considered rare among the species of Psittacidae, and involves the replacement of the pigment (natural color) by the red color (BUCLEY, 1982), due to the excess of carotenoids (HOSNER & LEBBIN, 2006) and psittacofulvins (MCGRAW & NOGARE, 2005), as observed in the present report, where pigments

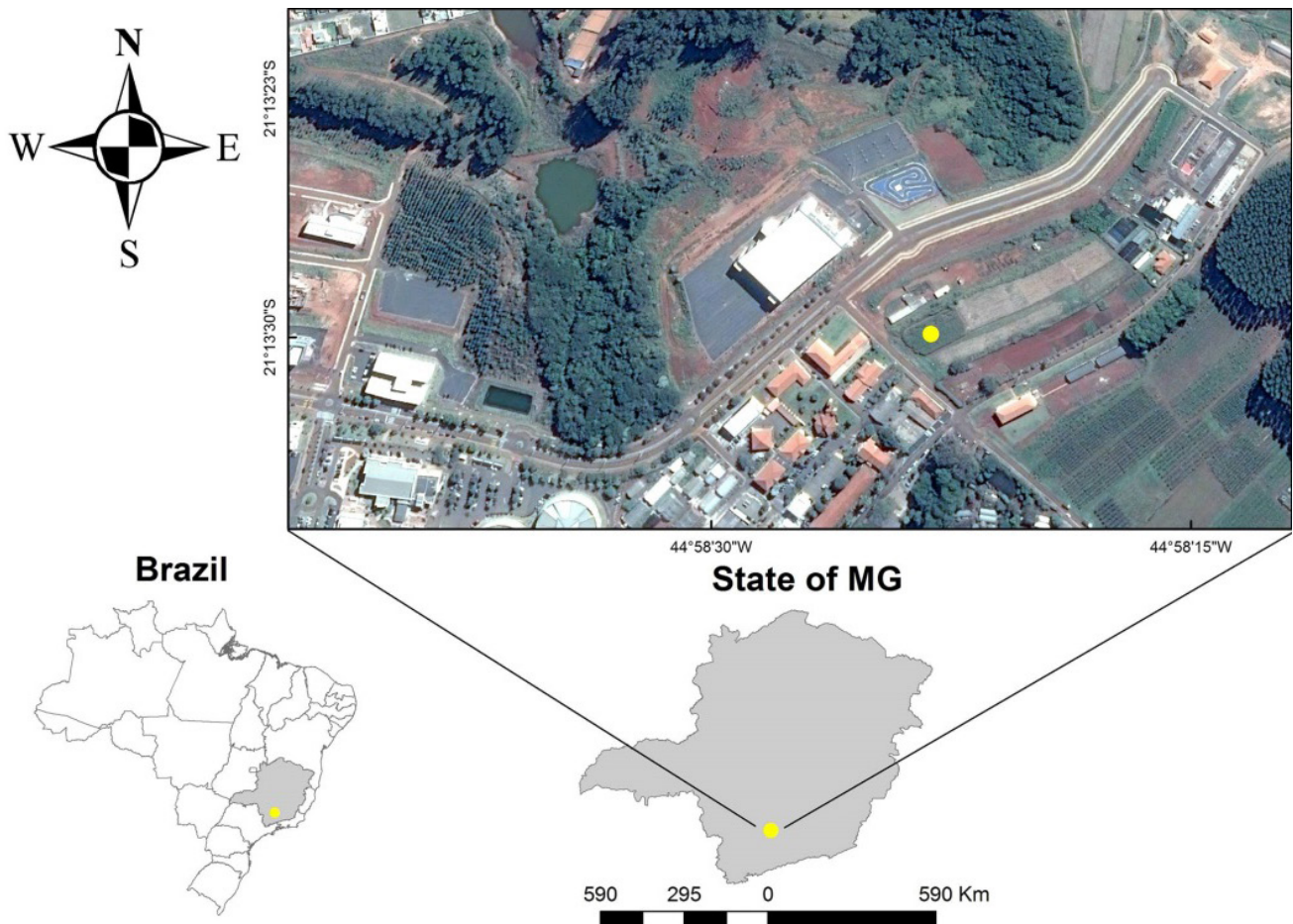


Figure 2. Observation site (yellow dot) with record of erythrism in *Psittacara leucophthalmus*. Campus of the Federal University of Lavras (UFLA), Lavras county, Southern of Minas Gerais state, Southeastern of Brazil.

were exchanged on the head, wings, and upper wing coverts (small and large) (Figure 1). During the classification of the phenomenon, the other types of variation in the plumage were discarded. According to SICK (1997), in Flavism the birds are presented with a greenish-yellow coloration, and have the normal iris coloration. In Luteinism, the birds present a yellow-gold color, with the red feathers intensifying, and the iris has a red color (NEMÉSIO, 1999). Albinism, melanism and cyanism were easily discarded because this phenomenon are different of the observed case.

We present here a case of erythrism, a rare phenomenon, in a Brazilian native species of Psittacidae (*P. leucophthalmus*). There are only two reports of this type of aberrant plumage that we are aware of: *Amazona aestiva* (Linnaeus, 1758) by TEIXEIRA (1985), and for an African species *Agapornis roseicollis* (NEMÉSIO, 1999), thus highlighting the importance of this note. It also provides a basis for studies of mutations in bird plumages, which in the future, from the knowledge of its mechanisms, may possibly aid in the understanding of evolutionary processes (NEMÉSIO, 1999).

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