

RECORD OF LEUCISM IN *PASSER DOMESTICUS* (LINNAEUS, 1758), IN PONTA GROSSA, PARANÁ, BRAZIL

Luiz Liberato Costa Corrêa^{1,2*}
Rafael Lucchesi Balestrin³
Darliane Evangelho Silva^{1,2}
Stefan Vilges de Oliveira^{2,4}

ABSTRACT

We present here the record in leucism in a Sparrow, *Passer domesticus* in the urban area in the city of Ponta Grossa, Paraná, contributing for information on variation of plumage of this species in Brazil.

Keywords: Leucistic; Plumage; Passeridae;

REGISTRO DE LEUCISMO EM *PASSER DOMESTICUS* (LINNAEUS, 1758), EM PONTA GROSSA, PARANÁ, BRASIL

RESUMO

Apresentamos o registro de leucismo em Pardal, *Passer domesticus*, em perímetro urbano, da cidade de Ponta Grossa, Paraná, contribuindo com informações acerca de variações de plumagem dessa espécie no Brasil.

Palavras chave: Leucismo; plumagem; Passeridae.

¹ PPG em Ambiente e Desenvolvimento, Centro Universitário UNIVATES, Avenida Avelino Tallini, 171, CEP 95900-000, Lajeado - RS, Brasil.

² Organização Não Governamental - Interação de Trabalhos Ambientais Caçapava do Sul - RS, Brasil.

³ Laboratório de Herpetologia, Depto de Zoologia, Instituto de Biociências, Universidade Federal do Rio Grande do Sul, Avenida Bento Gonçalves, 9500, prédio 43435, CEP 91501-970, Porto Alegre, Rio Grande do Sul, Brasil.

⁴ PPG em Medicina Tropical da Universidade de Brasília, Campus Universitário Darcy Ribeiro, CEP 70910-900, Brasília - DF, Brasil.

*Corresponding author: lc_correa@yahoo.com.br

INTRODUCTION

Leucism is a genetic anomaly characterized by the loss or reduction of pigments in parts of the body, like the feathers, beak, legs or eyes (BUCKLEY, 1982), this mutation is mistaken with albinism (GRILLI et al., 2006; VAN GROUW, 2006). The cause of such changes can be related to mutant alleles (BENSCH et al., 2000) or the divergence in genes that end up preventing the normal development of pigmentation (MØLLER and MOUSSAEU, 2001).

Chromatic variations in plumages of birds have frequently been registered (PEREIRA et al., 2008) and leucism has been identified more frequently (FORREST and NAVEEN, 2000). These episodes normally happen in samples kept in captivity, it can be related to stress and feeding disorders (PIACENTINI, 2001), registers in free-living birds are not common (SANTOS et al., 2011).

Sparrows with aberrant coloring were outlined by Lordello (1951); Gross (1965); Hanebrink (1968); Pereira et al. (2008); Corrêa et al. (2011); Ribeiro and Gogliath (2012), and these variations of coloring or depigmentation can vary from totally albinos specimens to leucistics or the ones with deformed tonality in cinnamon coloring, out of the species coloration standard (SICK, 1984, 1997).

The Sparrow *Passer domesticus* (LINNAEUS, 1758), is a Passeriforme of the family Passeridae (CBRO, 2011), original from Europe and placed in Brazil in 1906 (HÖFLING and CAMARGO, 2002). These specimens present sexual dimorphism where the males distinguish from females by a black spot on the throat, even gray pileus and a black beak, while the black spot on females doesn't exist, presenting grayish plumage with a light marking around eyes that goes down a little and the lower side dirty white and a dark gray beak. The sparrow is a city living bird that, nowadays, presents a wide geographical distribution in the world (Sick, 1984; Belton, 1994).

This paper reports on the record of leucism in *Passer domesticus*, in the city of Ponta Grossa, Paraná - Brazil, thus contributing to new information of color variation in sparrows.

DESCRIPTION OF THE OCCURRENCE

A sample of leucistic *Passer domesticus* was seen on December 10th, 2011 (12/10/2011), in the city of Ponta Grossa, Paraná, Brazil. The bird was found in the urban area ("S 25°04'41.6" W 50°11'11.0"), on Minas Gerais Street, near Princess Hotel.

The specimen *Passer domesticus* was watched in the morning for about an hour, from 08:00AM to 09:00AM. During foraging activity it didn't show any unusual behavior, in brief attempts it landed on the ground picking up food scraps and soon after it took off to take refuge on the power grid and on roofs of houses. It was observed that the leucistic bird didn't stay with other sparrows of standard coloration, remaining near the flock. Similar behavior of *Passer domesticus* were recorded by Pereira et al. (2008); Corrêa et al. (2011) and Ribeiro and Gogliath (2012). The coloration of the leucistic sample registered in Ponta Grossa - PR, (Figure 1), differs from the pattern of normal specimens of *Passer domesticus* (BELTON, 1994).



Figure 1 - Leucistic individual of *Passer domesticus* in the city of Ponta Grossa, Paraná.

All feathers and plumages are depigmented in a tonality of light brownish cinnamon. Beaks and tarsus also show depigmentation (Figure 2).



Figure 2 - Leucistic individual of *Passer domesticus* in the city of Ponta Grossa, Paraná.

The register of leucism on *Passer domesticus* brings additional information for the literature to the state of Paraná seeking their aid in the detection of standards and the investigation of possible causes and effects.

REFERENCES

- BELTON W. **Aves do Rio Grande do Sul: Distribuição e Biologia**. São Leopoldo: Unisinos.1994.
- BUCKLEY, P.A. Avian Genetics. In: Petrak, M. (ed.). **Diseases of cage and aviary birds**, 2nd ed. pag. 21-110. Lea and Febiger, Philadelphia.1982.
- COLLINS, C.T.A. Leucistic Willet in California. **Western Birds**, v. 34, p. 118-119, 2003.
- CBRO. **Lista das aves do Brasil** - Comitê Brasileiro de Registros Ornitológicos. Versão 10º ed. 2011. Disponível em: <http://www.cbro.org.br> acesso em Junho de 2012.
- CORRÊA, L.L.C.; SILVA, D.E. ; TRINDADE, A.D.O.; OLIVEIRA, S.V.D. Registro de Leucismo em Pardal (*Passer domesticus*) (Lineaeus, 1758), para o Sul do Brasil. **Biodiversidade Pampeana**, v. 9, n.1, p.12-15, 2011.
- DE LA PEÑA, M.R.; BRUNO, F. Albinismo en aves argentinas. **Eco Ciencia y Naturaleza**, v. 10, p. 34-38, 2008.
- FORREST, S.C.; NAVEEN, R. Prevalence of Leucism in Pygocelid Penguins of the Antarctic Peninsula. **Waterbirds**, v. 23, n. 2, p. 283-285, 2000.
- GROSS, A.O. The incidence of albinism in North American birds. **Bird-Banding**, v.36, n. 2. p. 67-71, 1965.
- HANEBRINK, E.L. A survey of albino birds in Arkansas. **Arkansas Academy of Science Proceeding**, n. 22, p. 17-28, 1968.
- HÖFLING, E.; CAMARGO, H.F.A. **Aves no Campus**.3º ed.: São Paulo, EDUSP.2002.
- LORDELLO, L.G.E. *Passer domesticus* albino e considerações acerca de algumas anomalias de plumagens verificadas em aves do Brasil. **Dussenia**, v. 2, n.6, p. 361-364, 1951.
- MØLLER, A.P.; MOUSSAEU, T.A. Albinism and phenotype of barn swallows (*Hirundo rustica*) from Chernobyl. **Evolution**, v. 55, p. 2097-2104, 2001.
- GRILLI, P.G.; MOSCHIONE, F.N.; BURGOS, F.G. Leucismo parcial en pepitero de collar *Saltator aurantiirostris* en Santa Bárbara, Jujuy, Argentina. **Cotinga**, n.25, p. 89-90, 2006.

VAN GROUW, H. Not every white bird is an albino: sense and nonsense about color aberrations in birds. **Dutch Birding**, n.28, p. 79-89, 2006.

PEREIRA, G.A.; DANTAS, S.M.; PERIQUITO, M.C.; BRITO, M.T.; FARIAS, G.B.; MIGUEL RIZZO, M.; VIANA, R.E.; COELHO, G.; SILVA, M.F. Registro de algumas mutações em pardais (*Passer domesticus*) no Brasil. **Atualidades Ornitológicas**, n. 146, p. 45-47, 2008.

PIACENTINI, V.Q. Novos registros de plumagens aberrantes em Muscicapidae e Emberizidae neotropicais. **Tangara**, v.1,n 4,p. 183-188,2001.

RIBEIRO, L.D.B.; GOGLIATH, M. Um caso de leucismo em pardal, *Passer domesticus* (Linnaeus, 1758) em uma ilha do rio São Francisco, nordeste do Brasil. **Revista Biotemas**, v.25, n.1, p. 187-190, 2012.

SANTOS, K.K.; LOMBARDI, V.T.; NETO, S.D.A.; MIGUEL, M.; FAETTI, R.G. Registros de plumagens aberrantes em *Patagioenas picazuro* (Columbiformes, Columbidae), *Knipolegus lophotes* (Passeriformes, Tyrannidae) e *Turdus rufiventris* (Passeriformes, Turdidae) no estado de Minas Gerais. **Atualidades Ornitológicas**, n.160, p.4-6,2011.

SANTOS, T. Variantes de plumajes y malformaciones en *Turdus* spp. **Ardeola**, v. 28, p. 133-138, 1981.

SICK, H. **Ornitologia Brasileira, Uma Introdução**. Brasília: 3º ed. Vol. I- II. Editora Universidade de Brasília, 1984.

SICK, H. **Ornitologia Brasileira**. Rio de Janeiro: Nova Fronteira. 1997.