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RECORD OF LEUCISM IN *Ammodramus humeralis* (BOSC, 1792) (PASSERIFORMES: PASSERELLIDAE) IN CENTRAL-WEST BRAZIL

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Abstract: Several cases of chromatic mutation in birds have been reported in the scientific literature and, apparently, leucism cases are the most frequent. This study reports a case of partial leucism in *Ammodramus humeralis* (Passeriformes, Passerellidae) in the Mato Grosso State, Brazil: the first chromatic mutation case for this species in Brazil and most likely for the Neotropical region either.

Keywords: aberrant; chromatic mutation; Grassland sparrow.

The Grassland sparrow *Ammodramus humeralis* (Bosc, 1792), belongs to the order Passeriformes, and to the Passerellidae family. It is a small bird that inhabits field environments (rural and agriculture areas) in Argentina, Bolivia, Brazil, Colombia, French Guiana, Guiana, Uruguay, Suriname, Paraguay, Peru, and Venezuela (Sick 1997, BirdLife International 2017). The species original coloration is predominantly grey and brown, with a blackish streaked back. Supercilium and shoulders are rich yellow (Sick 1997).

The leucism mutation may be defined as total or partial, due to the hereditary absence of melanin cells, which results in the depigmentation of the plumage, presenting a whitish tone (van Grouw 2006, van Grouw *et al.* 2011). In total leucism, all feathers are white, and in partial leucism, only some feathers are affected. In contrast to albinos, the eye color remains normal in leucistic individuals. Probably, leucism is one of the most frequent chromatic mutations recorded in bird species (van Grouw 2006, 2013), with several cases reported for Passeriformes in Brazil, such as *Passer domesticus* (Corrêa *et al.* 2011), family Passeridae; *Paroaria coronata* (Corrêa *et al.* 2012), *Tangara sayaca* (Wagener *et al.* 2017), *Tangara fastuosa* and *Sporophila ardesiaca* (Lopes & Freitas 2017), family Thraupidae; *Cyanoloxia brissoni* (Lopes & Freitas 2017), family Cardinalidae; and *Turdus leucomelas* (Silva *et al.* 2016, Lopes & Freitas 2017) and *Turdus rufiventris* (Junior & Corrêa 2017, Lopes & Freitas 2017), family Turdidae. However, other chromatic aberrations are also commonly reported in the scientific literature for birds, such as albinism, brown, dilution, ino, melanism, xanthochroism and progressive greying (*e.g.*, van Grouw *et al.* 2011, van Grouw 2013).

We recorded a case of partial leucism in *A. humeralis* in a rural area (09º37'39.7"S, 56º08'46.3"W) in the municipality of Alta Floresta, Mato Grosso state, Brazil. The individual presented partial depigmentation in feathers, showing a whitish tonality. Supercilium and shoulders remains yellow. The mutant specimen was observed on August 13, 2016 and later in

August 14, 2017 (Figure 1). The mutant individual was accompanied by another bird of the same species (apparently a couple), of normal plumage, and both were foraging on the ground. This is the first documented case of this kind of plumage mutation for *A. humeralis* in the Brazilian territory, and possibly for the Neotropical region.

Apparently, mutant individuals tend to have short lifetimes in the wild, because their aberrant coloration calls the attention of possible predators (van Grow 2013). However, the mutant individuals of *P. domesticus* and *P. coronata* reported by Corrêa *et al.* (2011, 2012) in southern Brazil, were once again recorded living in the wild in 2016 (L. L. C. Corrêa, personal communication). Also, it is known that mutant individuals may form breeding pairs and present breeding success (*e.g.*, van Grow 2006, 2013, Mohr *et al.* 2017). Thus, any ecological and biological information regarding such mutant individuals are needed in the scientific literature,

Figure 1. A Grassland sparrow *Ammodramus humeralis* (Passeriformes, Passerellidae) presenting partial leucism in Mato Grosso state, Brazil. Specimen registered on August 13, 2016 (a; Photo: Mario Martins), and the same individual on August 14, 2017 (b; Photo: Marcelo Quirino).

although these information are often ignored in studies reporting color mutations (Sainz-Borgo *et al.* 2016, Corrêa *et al.* 2017, Finger *et al.* 2017, Petry *et al.* 2017). The knowledge on aberrant plumage and other chromatic variations in birds may contribute to future studies regarding population genetics and ecology of species, since chromatic mutations are caused by naturally rare recessive genes (van Grow 2006, 2013).

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