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Nota científica
(Short communication)**FIRST RECORD OF LEUCISM IN *TROPIDURUS HISPIDUS* (SPIX, 1825) (SQUAMATA: TROPIDURIDAE) IN NORTH BRAZIL, EASTERN AMAZON****PRIMER REGISTRO DEL LEUCISMO EN *TROPIDURUS HISPIDUS* (SPIX, 1825) (SQUAMATA: TROPIDURIDAE) EN EL NORTE DE BRASIL, AMAZONIA ORIENTAL****PATRICK RIBEIRO SANCHES, FILLIPE PEDROSO DOS SANTOS, CARLOS EDUARDO COSTA CAMPOS***

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ABSTRACT. In vertebrates leucism does not occur frequently in nature but has been recorded in amphibians and reptiles. Herein we report the first record of leucism in *Tropidurus hispidus* from north Brazil, Eastern Amazon. During fieldwork in an amphibian and reptile assessment, we photographed on a rocky surface and leaf litter an individual *T. hispidus* with leucism.

Key words: Coloration patterns; Lizard; Leucism

Sanches, P. R., Santos, F. P., Costa-Campos, C. E. (2019). Primer registro del leucismo en *Tropidurus hispidus* (Spix, 1825) (Squamata: Tropiduridae) en el norte de Brasil, Amazonia oriental. *Acta Zoológica Mexicana (nueva serie)*, 35, 1–4. <https://doi.org/10.21829/azm.2019.3502202>

RESUMEN. En los vertebrados el leucismo no ocurre con frecuencia en la naturaleza, pero se ha registrado en anfibios y reptiles. Aquí informamos el primer registro de leucismo en *Tropidurus hispidus* del norte de Brasil, Amazonas Oriental. Durante el trabajo de campo en una evaluación de anfibios y reptiles, fotografiamos sobre una superficie rocosa y hojarasca un individuo de *T. hispidus* con leucismo.

Palabras clave: Patrones de coloración; Lagarto; Leucismo

Leucism is an unusual coloration pattern caused by developmental anomalies in the differentiation of the pigment cells, usually due to genetic mutations or environmental factors that cause an excess or deficit in the metabolism of dermal pigmentation, restricted to specific body region or throughout the entire body (Duellman & Trueb, 1994). In vertebrates leucism does not occur frequently in nature but has been recorded in amphibians (Keely & Maldonado, 2013; Moraes & Kaefer, 2015) and reptiles (Noronha *et al.*, 2013;



Kornilios, 2014). Among the hereditary chromatic anomalies, there are several classifications based on pigmentation loss, being leucism and albinism the main recognized types (Miller, 2005; Abreu *et al.*, 2013). Although the terminology used is divergent and many authors consider leucism as partial albinism (Rodríguez-Pinilla & Gómez-Martínez, 2011; McCardle, 2012). Leucism occurs when the body of the animal is partially or totally depigmented, but the remaining margins of the body and the eyes remain pigmented, while albinism occurs in animals with complete absence of pigmentation, including the eyes, which become reddish or pink (Fertl & Rosel, 2002; Miller, 2005). Here we present the first record of leucism in *Tropidurus hispidus*.

Lizards of the genus *Tropidurus* (Wied, 1820) are abundant diurnal species found in open formations and forested habitats, distributed from southern Venezuela, through the Guianas to northeastern Brazil, from there west south of the Amazon region to eastern Bolivia, extreme northern Uruguay, and central Argentina (Frost, 1992; Frost *et al.*, 2001). *Tropidurus hispidus* is a heliothermic species belonging to the *T. torquatus* species group, widely distributed throughout northeastern South America, including the Caatinga of northeastern Brazil, with a southern limit in Bias Fortes, Minas Gerais, Brazil (Rodrigues, 1987; Frost *et al.*, 2001).

At 1055 h on 21 September 2015, a leucistic male of *Tropidurus hispidus* was photographed on a rocky surface and leaf litter around the Fortaleza de São José de Macapá (0.031058 °N, 51.049133 °W, datum WGS84), municipality of Macapá, Amapá state, Brazil. The lizard exhibited some level of depigmentation, with a white-grayish tone throughout the posterior half of the body, as well as in the hind limbs and digits, except for darkly pigmented eyes and some parts of the animal's skin. The front half of the body and the entire head were gray or dark brown (Fig. 1), confirming a case of leucism.



Figure 1. Leucistic adult specimen of *Tropidurus hispidus* found at Fortaleza de São José de Macapá, municipality of Macapá, Amapá state, Brazil.



Phenotypic abnormalities in coloration patterns are rare in wild populations (Bechtel, 1995) mainly due to the low survival rates (Krečsák, 2008; Virens *et al.*, 2017). For species with diurnal activity the loss of pigmentation makes individuals more susceptible to selective pressures related to visually-oriented diurnal predators. Also, unusual coloration may be associated with morphological and immunological abnormalities (Parsons & Bonderup-Nielsen, 1995). Recently, Ayala-Monedero & Álvares-León (2014) reported a case of incomplete leucism in the green iguana (*Iguana iguana iguana*) of the Caribbean Colombian. To our knowledge, this is the first report of partial leucism in *T. hispidus* in Eastern Amazon and come to enhance the knowledge about the occurrence of this type of abnormality in natural populations of reptiles.

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