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**First record of albinism in *Coendou (Coendou) longicaudatus*
Daudin, 1802 (Rodentia, Erethizontidae) in the state
of Rondônia, Brazil**

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ABSTRACT

In July 2021, an albino Amazonian long-tailed porcupine of the species *Coendou (Coendou) longicaudatus* was observed in the vicinity of the Samuel Dam lake in the Amazon region of Rondônia, northern Brazil. To the best of our knowledge, this individual, an adult found upon a dead tree near the lake shore, is the species' first record of albinism.

Keywords: Amazon, Dam, Neotropical mammal, Melanin, Porcupine

RESUMO – O primeiro registro de albinismo em *Coendou (Coendou) longicaudatus* Daudin, 1802 (Rodentia, Erethizontidae) no estado de Rondônia, Brasil

Em julho de 2021, um ouriço-cacheiro *Coendou (Coendou) longicaudatus* foi observado na área da Represa da Usina de Samuel, construído na Amazônia, em Rondônia, norte do Brasil. Era um indivíduo albino adulto, isolado em uma árvore morta perto da margem do lago. Este é o primeiro registro de albinismo da espécie.

Palavras-chaves: Amazônia, Mamífero neotropical, Melanina, Ouriço-caixeiro, Usina Hidrelétrica

Albinism, characterized by a deficiency in melanin production, is a rare recessive genetic abnormality that can influence the survival of affected individuals in their natural environment (Montoliu et al. 2014). It is a notably rare trait in Neotropical rodents. Given that animals with this condition are rendered more conspicuous, it may contribute to increased susceptibility to predation (Romero et al. 2018), particularly in anthropized environments (Almeida et al. 2022). This rare condition has not been previously recorded in *Coendou (Coendou) longicaudatus*.

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The Amazonian long-tailed porcupine *Coendou (Coendou) longicaudatus* Daudin, 1802 is a large arboreal Neotropical rodent that is widely distributed in the Amazon, east of the Andes, although its range is currently limited to the left bank of the Xingu River, being the only species of the genus occurring in the study area (Menezes et al. 2021). From the dorsal view, it is characterized by a dark brown coloration, streaked with short white dashes (Menezes et al. 2021). With respect to predation, there are occasional records of this porcupine being preyed upon by the ocelot *Leopardus pardalis* (Arias-Alzate et al. 2017; Griffiths et al. 2020) and harpy eagle *Harpia harpyja* (Costa & Nunes 2017), and is also potentially hunted for consumption by humans (Oliveira et al. 2022). Moreover, in other regions of Brazil, representatives of the genus *Coendou* are used in folk medicine (Alves et al. 2008; Alves & Rosa 2010).

Hitherto, the occurrence of a leucistic individual of *C. (Coendou) longicaudatus* has been recorded in Colombia (Romero-Briceño & González-Carcacia 2020), although currently, there are no records of albinism in this species. Here, we report what we believe to be the first record of albinism in *C. (Coendou) longicaudatus*.

The individual in question was observed in the vicinity of the Samuel Hydroelectric Plant lake, near to the Samuel Ecological Station (latitude 9.060749; longitude 63.290839) at around 09:35 on July 9, 2021 (Figs. 1 and 2). This was an opportunistic observation made by the author Prestes A. L. C., and for this reason the individual was not collected. The individual was found perched upon the top of a partially submerged dead tree, located approximately 80 m from the lake shore. The identification of the species was possible because of its body length (about 50 cm) and the tail size being about the same as the body size (Fig. 1). The area is characterized by a large number of dead trees scattered at different points in the lake, which are remnants of the forest area flooded during the construction of the dam from 1988 to 1989. The vegetation surrounding the lake is predominantly Dense Ombrophilous Tropical, and in the vicinity of the site of observation there are several farms of differing sizes. Confirmation of the albinism of this specimen was based on our field observations of the eyes, which were completely red.

Different mammal species tend to be characterized by the differing extent of albinism, which may be total or partial, with records in *Didelphis aurita* (Wied-Neuwied, 1826) (Vanstreels et al. 2021), *Cuniculus paca* (Linnaeus, 1766) (García-Casimiro & Santos-Moreno 2020), *Eira barbara* (Linnaeus, 1758) (Aximoff & Rocha 2016), *Proechimys gardneri* da Silva, 1998 (Dalapicolla et al. 2020), *Tapirus terrestris* (Linnaeus, 1758) (Landis et al. 2020) and different bat species (e.g., Romano et al. 2015; Rosa et al. 2017; me et al. 2021; Ventorin et al. 2021). being reported for South American rodents. Although the factors that contribute to the development of chromatic disorders such as albinism or leucism in Neotropical porcupines have yet to be established (Romero et al. 2018), it has been found that albino individuals can undergo visual- and behavioral-related changes (Creel 2015; Tavares et al. 2020). However, the effects on their survival should be further investigated, particularly in altered environments.

The order Rodentia encompasses the widest diversity of living mammals (Wilson & Reeder 2005), with new species continuously being described or identified (e.g.,



Menezes et al. 2021; Teta et al. 2022). In Brazil, 770 mammal species have been formally recorded to date, among which 34.68% are rodent species (Abreu et al. 2021). To date, albino individuals have been recorded in 73 rodent species worldwide (e.g., Mandal & Ghosh 2000; Łopucki & Mróz 2010; Pelaez-Tapia et al. 2021; Rice et al. 2022), which corresponds to less than 2% of the species in this order (Romero et al. 2018). Among the Neotropical rodents, albinism has been reported in two species in the family Erethizontidae, *Coendou rufescens* in Ecuador (Romero et al. 2018) and *Erethizon dorsatum* in Alaska, Canada, and USA (Pennant 1784; Seton 1909; Dunn 1921; Struthers 1928; Reeks 1942; Shadle et al. 1946; Hewston 1962; Roze 2012), being this the first record for the species *C. (Coendou) longicaudatus*.

The observations reported herein advance our current knowledge regarding albinism in rodents, particularly in *Coendou (Coendou) longicaudatus*. Future studies should focus on understanding the factors that cause albinism, particularly among those mammals distributed in the southwestern Brazilian Amazon.

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Figure 1. An albino individual of the porcupine *Coendou (Coendou) longicaudatus* recorded in the present study (Photo: André Luiz da Cruz Prestes) and a normal-colored individual occurring in the same locality (Photo: Ricardo Melo).

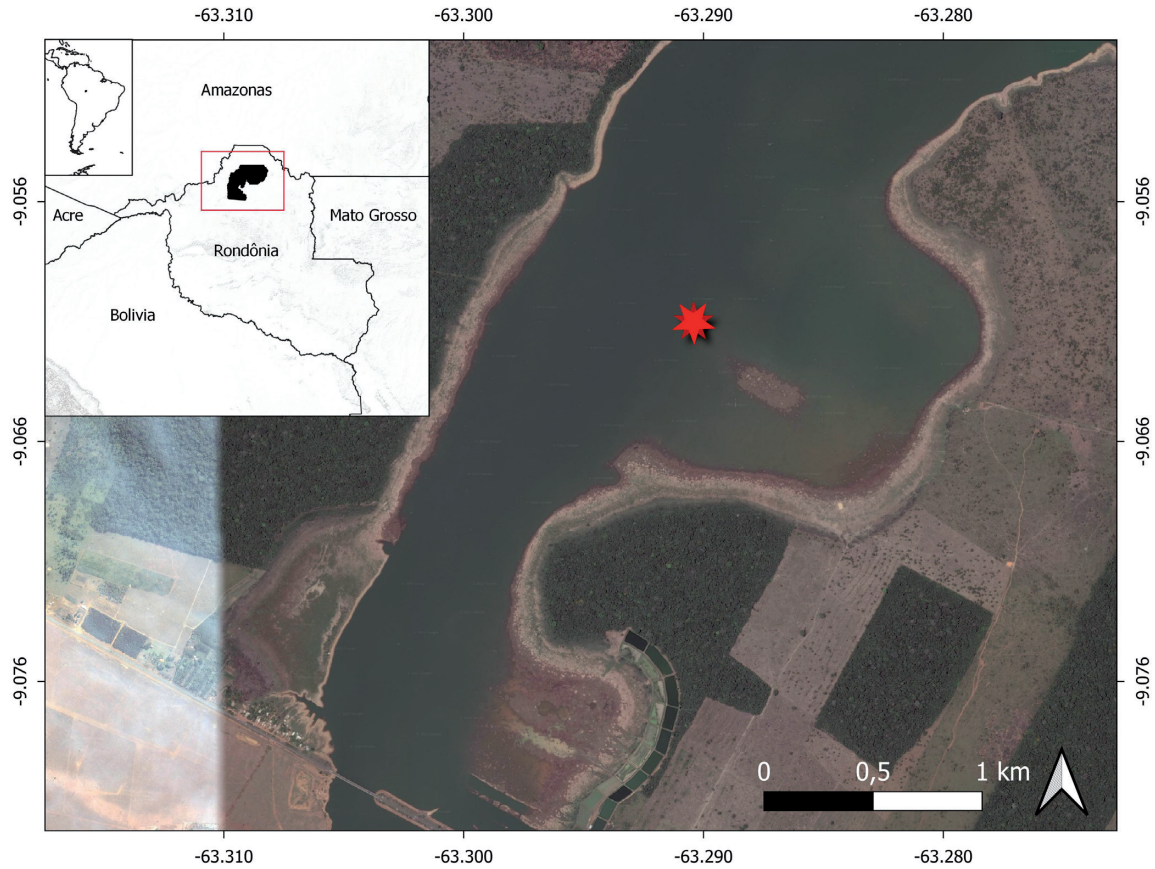


Figure 2. Location of the recorded albino individual of *Coendou* (*Coendou*) *longicaudatus* in Candeias do Jamari, Rondônia, Brazil.

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