

Nature Notes

First record of an albino Lowland Paca *Cuniculus paca* in Trinidad, West Indies

In natural environments, animals displaying abnormal coloration, such as albinism, often have a lower survival rate compared to animals with typical colouring due to increased vulnerability to predation and decreased efficiency in capturing prey (Miller 2005; Silva-Caballero *et al.* 2014; Espinal *et al.* 2016). Albinism is characterized by a complete absence of melanin pigment resulting in white hair, skin, and frequently in pink eyes (Fertl and Rosel 2009). Additionally, reduced pigmentation can manifest in two other conditions: leucism, characterized by white or pale patches alongside normal eye colour, and piebaldism, body pigmentation missing in only some areas (Fertl and Rosel 2009). A decrease in pigmentation, as observed in prey species such as the *Cuniculus paca* (Linnaeus, 1766) reported here, is considered a disadvantage because it heightens the probability of detection by potential predators (Nedyalkov *et al.* 2014; Sobroza *et al.* 2016). While colour abnormalities can be associated with diseases such as sensory or nerve defects, anaemia, low fertility, increased susceptibility to disease, and impaired vision (Acevedo and Aguayo 2008), individuals with varying colour abnormalities have been documented in adult animals (Espinal *et al.* 2016).

This paper presents the first documented case of albinism in paca *Cuniculus paca* in Trinidad and Tobago's forests, although local hunters have previously shared anecdotal accounts with the authors. Notably, García-Casimiro and Santos-Moreno (2020) highlighted the first-ever documented

case of albinism in pacas, making this Trinidadian account the second documented case globally. The first fully documented case was reported in southeast Mexico, despite earlier mentions of albino pacas in Brazil by Oliveira (2009).

The paca, a caviomorph rodent found in neotropical regions, is known for its solitary, territorial and nocturnal behaviour (Pérez 1992). With a robust and heavy physique, its upper coat varies in colour from reddish-brown to dark brown or smoke-grey, marked by irregular white or pale-yellowish spots along the lateral flanks. These spots, usually forming about four longitudinal rows, extend from the neck to the ventral area (Pérez 1992).

During a five-month biodiversity survey from 9 April to 12 August 2023, on a property near Mount Harris located in the Sangre Grande district of Trinidad, an albino paca was recorded on one of our camera traps on 30 April 2023, at 2105hr (Fig 1). This albino paca had a completely white body. We were unable to obtain pictures of its eyes and flanks, and based on the the single grayscale photo we cannot be certain which form of albinism is being exhibited. The albino individual in Fig 1 can be compared to Fig 2 of an adult female paca, showcasing typical colouring, captured on a different camera at the same survey site location on 18 April 2023.

The sex and current status of this albino paca remain uncertain. Its subsequent presence was not observed during the rest of the survey period.



Fig. 1. Albino *Cuniculus paca* walking through a forested area. Photo captured on a Reconyx HC600 camera trap 30 April 2023 at 2105h.



Fig. 2. Female *Cuniculus paca* exiting her hole into a stream. Photo captured on a Reconyx HC600 camera trap 18 April 2023 at 1514h.

We would like to thank the Environmental Management Authority for loan of their equipment to conduct surveys and for their continued support, Grosvenor Estate for allowing us access to their property, Howard Nelson for comments made on this manuscript, and Sabira Ali for providing us with transportation to conduct regular maintenance and services.

REFERENCES

- Espinal M., Mora J.M., Ruedas L.A., López L.I. and Marineros L.** 2016. A case of albinism in the Central American spider monkey, *Ateles geoffroyi*, in Honduras. *Mastozoología Neotropical*, 23: 63–69.
- Fertl D. and Rosel P.** 2009. Albinism. In: Perrin W.F., Würsig B. and Thewissen J.G.M. (Eds) *Encyclopedia of Marine Mammals*. Academic Press. San Diego, USA, 24–26.
- García-Casimiro E. and Santos-Moreno, A.** 2020. First record of albinism in the Paca *Cuniculus Paca* (rodentia, Cuniculidae) in southeast Mexico. *Neotropical Biology and Conservation*, vol. 15, 2020, p. 195–200.
- Miller J.D.** 2005. All about albinism. *Missouri Conservationist Magazine*, 66: 4–7.
- Nedyalkov N., Koshev Y., Raykov I., and Bardarov G.** 2014. Color variation of small mammal's (Mammalia: Rodentia and Insectivora) coats from Bulgaria. *North-Western Journal of Zoology*, 10: 314–317.
- Oliveira, S.V.** 2009. Albinismo parcial em cutia *Dasyprocta azarae* (Lichtenstein, 1823) (Rodentia, Dasyproctidae), no sul do Brasil. *Biotemas*, 22: 243–246.
- Pérez E.M.** 1992. *Agouti paca*. *Mammalian Species*, 404: 1–7.
- Silva-Caballero A., Montiel-Reyes F., Sánchez-Garibay E. and Ortega J.** 2014. Leucismo en el coatí de nariz blanca *Nasua narica* (Mammalia: Carnivora), en Quintana Roo, México. *Therya*, 5: 839–843.

Shaquille Everod George

West Indian Herping Organisation
georgewildlife@outlook.com

and **Zakariyya Ali**

West Indian Herping Organisation
zakwildlifepphoto@gmail.com