

**Tail use by *didelphis albiventris* (didelphimorphia-didelphidae)  
to carry vegetable material in a pine grove in the Southeastern Brazil**  
**Uso da cauda por *didelphis albiventris* (didelphimorphia-didelphidae)  
para carregar material vegetal em um pinheiro no sudeste do brasil**

LAIS R. PEREIRA<sup>1\*</sup>, MARCELO N. SCHLINDWEIN<sup>1</sup>

In this note, we report an apparent behavior not described yet of *Didelphis albiventris* species, with the recording of an individual carrying vegetable elements with its tail at two different times. These records were part of a wildlife survey, through camera traps, that was carried out in a farm located in the city Araçoiaba da Serra, São Paulo, Brazil (23°34'33.75"S e 47°32'16.33"O). The goal was to identify the mammals species present in different environments, including areas used for crop, fragments of Atlantic Forest and a reforestation area of pine (*Pinus elliottii*).

In each area five cameras "Bushnell Trophy Cam HD" without bait were placed, with 50 m from each other and between 35 and 50 cm from the ground. All camera traps were configured in size 320x240, video mode with length and timespan of 10 and 30 seconds, respectively, LED mode "low", shutter mode "high", sensor mode "high", in activity 24 hours a day.

In June and September 2016, were conducted surveys lasting 15 days without change of the sampled points. The images below (Fig. 1) are from the videos with better definition, being possible to see the date and time of recordings. Analyzed the memory cards of all sampled areas, *D. albiventris* was the unique opossum species recorded, appearing in the fragment of Atlantic Forest and in the pine reforestation area, being the latter where the event occurred. This area has 2.3 ha and is bordered by an internal road, with a fragment of natural regeneration, with a pasture and the farmhouse.

In the recording of the first sampling (A), the opossum passes in front of the camera carrying with its tail what appears to be an amount of leaves, and then, it is shown to be about to climb a tree in the right corner of the video. In the final seconds of another recording it is possible to see the animal really climbing up the tree with leaves in the tail. In the recording obtained in the second sampling (B), the opossum walks toward the camera with vegetable material in the tail. Other records of de same period revealed interesting behaviors, such as an individual leaning on its hind legs, and another one that apparently puts something in the pouch and immediately rolls leaves on the tail.

In both videos exemplified above, the white-eared opossum uses the tail to do the behavior discussed in this work. Regarding tail use to carry vegetable material, a publication recently reported such behavior for *D. marsupialis* which also used the pouch for the same purpose (Delgado-V et al., 2014).

---

<sup>1</sup>Laboratório de Ecologia e Conservação, Universidade Federal de São Carlos. Rodovia João Leme dos Santos (SP-264), Km 110, Itinga, Sorocaba, São Paulo, Brazil, CEP 18052-780 [].

\* Corresponding author:  
laisrp@yahoo.com.br



**Figure 1.** Recording of *D. albiventris* (circled in yellow) obtained in the first (A) and second (B) sampling, both in a pine grove.

Overall, the tail of opossums is a thin, muscular organ, usually longer than the length of the head and body together and the exposed skin presents gray or brown pigmentation (Voss & Jansa, 2009). The tip is strong enough to grasp objects and *D. albiventris*'s tail is a bit shorter than the measure of body and head (Emmons & Feer, 1997), and, being prehensile, it helps the legs in the process to hold and climb (Cunha & Vieira, 2002).

Behavior studies with opossums have gained significant space since it began to be observed similar characteristics between generalist marsupials and generalists eutherian mammals (Kimble, 1997). Thus, the description of behavioral events reinforces the relevance of studies with marsupials, especially with *Didelphis* genus. As mentioned earlier, behavior of *D. albiventris* is often trivialized and, thus, not published, resulting in an outdated understanding about the biology of these animals. As an example of this issue, a recent study has described a group with 13 individuals resting together, without agonistic behavior, introducing a discussion on the solitary habit always pointed in the behavior repertoire of the specie (Ástua et al., 2015).

## References

- ASTÚA D, CARVALHO RA, MAIA PF, MAGALHÃES AR, LORETTO D. 2015. First evidence of gregarious denning in opossums (Didelphimorfia, Didelphidae), with notes on their social behaviour. *Biology Letters* 11:1-5.
- CUNHA AA, VIEIRA MV. 2002. Support diameter, incline, and vertical movements of four didelphid marsupials in the Atlantic forest of Brazil. *The Zoological Society of London* 258:419-426
- DELGADO-V CA, ALZATE AA, ARANGO AS, LONDOÑO JDS. 2014. Uso de la cola y el marsúpio en *Didelphis marsupialis* y *Metachirus nudicaudatus* (Didelphimorfia: Didelphidae) para transportar material de anidación. *Mastozoología Neotropical*, Mendoza 1:129-134.
- EMMONS LH, FEER F. 1997. Neotropical rainforest mammals: a field guide. The University of Chicago Press, Chicago 2<sup>a</sup> ed.
- KIMBLE DP. 1997. Didelphid behavior. *Neuroscience and Biobehavioral Reviews*, Eugene 3:361-369.

VOSS RS, JANSA SA. 2009. Phylogenetic relationships and classification of didelphid marsupials, an extant radiation

of a new world metatherian mammals. *Bulletin of the American Museum of Natural History*.