


FIRST NECROPHAGY RECORD FOR THE GENUS *LEIOCEPHALUS*  
(SQUAMATA: LEIOCEPHALIDAE) IN CUBAPrimer registro de necrofagia para el género *Leiocephalus*  
(Squamata: Leiocephalidae) en CubaLuis F. de Armas<sup>1\*</sup> & Manuel Iturriaga<sup>2</sup><sup>1</sup>Apartado Postal 4327, San Antonio de los Baños, Artemisa 38100, Cuba.<sup>2</sup>Instituto de Ecología y Sistemática. Carretera Varona # 11835/Oriente y Lindero, Rpto. Parajón, Boyeros, La Habana, Cuba. [manueliturriaga83@gmail.com](mailto:manueliturriaga83@gmail.com);  <https://orcid.org/0000-0003-0231-1366>\*Corresponding autor: [luisdearmas1945@gmail.com](mailto:luisdearmas1945@gmail.com);  <https://orcid.org/0000-0002-9096-3382>

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## ABSTRACT

In the backyard of an urban residence in San Antonio de los Baños, Artemisa Province, Cuba, an adult *Leiocephalus c. carinatus* Gray, 1827 was observed performing necrophagy over a two-week period. The lizard consumed domestic cockroaches (*Periplaneta americana*) and a ground beetle (Carabidae), both of which were fully dehydrated and had been dead for at least three weeks. This behavior is the first instance of necrophagy recorded in Cuba for a *Leiocephalus* species. Additionally, a list of all the recorded cases of necrophagy in this genus is provided.

**Keywords:** lizard, natural history, diet, Antilles, Cuba.

## RESUMEN

En el patio trasero de una residencia urbana en San Antonio de los Baños, provincia de Artemisa, Cuba, se observó a un *Leiocephalus c. carinatus* Gray, 1827 adulto que practicó necrofagia durante un período de dos semanas. El lagarto consumió cucarachas domésticas (*Periplaneta americana*) y un escarabajo terrestre (Carabidae), ambos completamente deshidratados y muertos desde hacía al menos tres semanas. Este comportamiento es el primer caso registrado en Cuba de necrofagia en una especie de *Leiocephalus*. Además, se proporciona una lista de todos los casos registrados de necrofagia en este género.

**Palabras clave:** lagarto, historia natural, dieta, Antillas, Cuba.

The Saw-scaled Curlytail (*Leiocephalus carinatus* Gray, 1827), known in Cuba as “perrito de costa” (coastal little-dog), is distributed in Bahamas, Cuba, Cayman Islands and Florida (USA) where it was introduced (Powell & Henderson, 2012). In Cuba, it is represented by seven subspecies (Rodríguez-Schettino, 2000), of which *L. c. carinatus* ranges from Matanzas



to Pinar del Rio province, mainly in coastal areas (Schwartz & Henderson, 1991). Recently, an introduced population of this subspecies was recorded from a small urban area in San Antonio de los Baños, Artemisa Province (Armas, 2022).

Like its congeners, *L. carinatus* is a generalist and opportunistic species that mainly feeds on arthropods (insects, arachnids, myriapods, crabs, wood-lice) and vegetable material (flowers, seeds, fruits, shoots), although sauropagy and cannibalism have also been recorded (Armas, 1987; Fong & Garcés, 2002; Kircher et al., 2014; Schoener et al., 1982). Even remains of human food have been reported to be consumed by these lizards (Cajigas et al., 2015; Martínez & Moreno, 2003).

While necrophagy is a known behavior in many terrestrial predators (Sazima & Strüssmann, 1990), it has been poorly documented in the genus *Leiocephalus* (Table I). In mid-July 2024, in the backyard of an urban house in San Antonio de los Baños city, an adult *L. c. carinatus* was observed (Fig. 1) in the same area where the species was recorded by Armas (2022). One of the lizard's most frequented spots is near the domestic waste container, where it easily catches flies attracted by food remains.



Figure 1. *Leiocephalus c. carinatus*. Adult in the backyard of an urban residence in San Antonio de los Baños city, Artemisa Province, western Cuba.

On August 20, a domestic cockroach (*Periplaneta americana*) and a ground beetle (Carabidae), both completely dehydrated and dead for at least three weeks, were hurled to the backyard, in the territory occupied by the Saw-scaled Curlytail. The insects were eaten by the lizard as soon as it detected and examined them. The beetle was entirely eaten; while the cockroach (Fig. 2) was half-eaten (anterior wings and three legs were not consumed).



Figure 2. Remains of a dehydrated adult *Periplaneta americana*, dead for at least three weeks, consumed by an adult *Leiocephalus c. carinatus* in an urban area from San Antonio de los Baños city, Artemisa Province, western Cuba.

To verify whether the observed event was an isolated incident or if necrophagy is a habitual behavior for this individual, on August 22, six adult cockroaches were collected, sacrificed and dehydrated through exposure to the sun for five consecutive days (approximately 30 hours of sun exposure in total). Between August 28 and 30, each morning two of those cockroaches were placed in the area where the lizard typically perches, before it began its daily activities. In all observations, the cockroaches were accepted and consumed.

On August 31, an adult cockroach, which had been dead for more than 24 hours and had an evident stench, was placed in the lizard's territory. As in the previous observations, it was totally eaten by the lizard. Similar behavior was observed on September 5, when two cockroaches (dead for 36 hours and emitting a repulsive odor) were eaten by the lizard in less than two minutes (Fig. 3). In these instances, when the potential prey was detected, the lizard remained still, observing the prey for 10–20 minutes before approaching and capturing it.

As suggested by Hüppop (2012), necrophagy in predatory lizards may be result of scarcity of prey. Examination of feces from this individual demonstrated the presence of small insects (mainly dipterans and ants).

This is the first necrophagy record for a *Leiocephalus* species in Cuba, and it also corresponds the second *L. carinatus* subspecies involved in this behavior (Table I). As proposed by Iverson & Smith (2006), this behavior might be more extended among leiocephalid lizards than present-day known.





Figure 3. Adult *Leiocephalus c. carinatus* in the backyard of an urban residence in San Antonio de los Baños city, Artemisa Province, Cuba, eating consecutively the first (A) and the second (B) of two cockroaches, both dead 36 h before and having stench.

Table I. Necrophagy events recorded for *Leiocephalus* species and subspecies.

Taxon	Country	Data	References
<i>L. carinatus carinatus</i>	Cuba	During two weeks, an adult (near 180 mm SVL) was observed several times, in the backyard of an urban residence, eating dehydrated, long-time dead cockroaches and a ground beetle (Carabidae).	This paper
<i>L. carinatus granti</i>	Cayman Islands	Scavenging a dead fish ashore in a Little Cayman beach.	Powell (2004)
<i>L. psammodromus</i>	Turks and Caicos	On Pine Cay (21°54'N, 72°06'W, 1.5 m a.s.l.), at 0950 h a male lizard (91 mm SVL) was consuming a dead <i>Anolis scriptus</i> which had been regurgitated by a <i>Cyclura carinata</i> at least 20 h before.	Iverson & Smith (2006). Henderson & Powell (2009).
		At 12:00 h, on Big Ambergris Cay (21.299°N, 71.633°W; 11 m a.s.l.), a young adult female (ca. 60 mm SVL) was observed feeding on the carcass of a road-killed conspecific adult male (ca. 85 mm SVL). Possibly the male was recently killed by the traffic and repetitively run over.	Reynolds (2009)
<i>L. schreibersii</i>	Dominican Republic	In three occasions, after eating the ants around a dead beetle or cockroach, the lizard ate the insects.	Schreiber et al. (1993)

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