

ISSN 2413-337X

REVISTA NICARAGUENSE DE BIODIVERSIDAD

N° 133

Noviembre 2025

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Lepidoptera) in Honduras

Alex M. Cubas-Rodríguez & Lashmi Montes



PUBLICACIÓN DEL MUSEO ENTOMOLÓGICO
LEÓN - - - NICARAGUA

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Cover photo: Juvenile *Ctenosaura similis* preyed upon by a domestic cat (*Felis catus*) in Útila, Islas de la Bahía, Honduras (photograph © XXX).

Domestic cat predation events on wild fauna (Squamata; Lepidoptera) in Honduras

Alex M. Cubas-Rodríguez^{1,2*}  & Lashmi Montes¹ 

Resumen

Eventos de depredación por gatos domésticos sobre fauna silvestre (Squamata; Lepidóptera) en Honduras

Los gatos domésticos (*Felis catus*) son depredadores eficientes que representan una amenaza para la biodiversidad. Se reportan dos nuevos casos en Honduras: un ataque a la polilla nocturna *Ascalapha odorata* en Santa Ana, Francisco Morazán (zona continental), y la depredación de un juvenil de *Ctenosaura similis* en la Isla de Útila, Islas de la Bahía (región insular). Estos registros destacan la necesidad de mitigar el impacto ecológico de los gatos sobre los insectos y reptiles silvestres.

Palabras claves: depredación, reptiles, insectos, fauna silvestre.

DOI: 10.5281/zenodo.17562009

Abstract

Domestic cats (*Felis catus*) are efficient predators that pose a threat to biodiversity. We report two new cases from Honduras: an attack on the nocturnal moth *Ascalapha odorata* in Santa Ana, Francisco Morazán (mainland), and the predation of a juvenile *Ctenosaura similis* on Útila Island, Islas de la Bahía (insular region). These records highlight the need to mitigate the ecological impact of cats on wild insects and reptiles.

Keywords: predation, reptiles, insects, wildlife.

¹Escuela de Biología, Facultad de Ciencias, Universidad Nacional Autónoma de Honduras, Departamento Francisco Morazán, Tegucigalpa, Honduras. <https://orcid.org/0000-0001-6426-1101> / <https://orcid.org/0009-0005-1107-7841>

²Centro de Investigaciones Biológicas de Honduras (CIBIOH), 5to piso edificio palmira, Departamento Francisco Morazán, Tegucigalpa, Honduras.

* Correspondencia: alexmcubas@gmail.com

Introduction

The domestic cat (*Felis catus*) is one of the most widespread carnivores in the world, and its feral populations have caused the decline and even extinction of numerous species (Dickman, 1996). Depending on their lifestyle, cats are classified into three categories: indoor, free-ranging, and feral. Indoor cats remain within the household, free-ranging cats spend part of their time outdoors but maintain contact with humans, and feral cats are not socialized (Bradshaw *et al.*, 2012; Pestsmart, 2018). Both feral and free-ranging cats represent a serious threat to biodiversity, as they are instinctive predators that attack wildlife even when regularly fed (Woods *et al.*, 2003; Baker *et al.*, 2005; Wildlife Society, 2018).

In recent years, it has been demonstrated that domestic cat predation on wildlife constitutes a serious global ecological problem (Gillies & Clout, 2003; Mori *et al.*, 2019). Nevertheless, its ecological consequences are poorly known by society, particularly by pet owners (Mella-Méndez *et al.*, 2022).

In Honduras, Cubas-Rodríguez *et al.* (2024) addressed for the first time the issue of dogs, chickens, and domestic cats preying on snakes, with cats being the main responsible predators between 2020 and 2023, attacking more than 14 native species. The aim of this contribution is to report two new predation events by domestic cats on wild species (insects and reptiles), described below.

Description of events

The first event occurred in Santa Ana, Francisco Morazán Department, Honduras, on October 2, 2024, at 19:00 h, where a domestic cat was observed attacking and consuming a nocturnal moth from *Ascalapha odorata* (Fig. 1A).

Comment: In the case of *A. odorata*, the barbed hairs present on its tegument apparently do not provide any significant defensive advantage against predators such as insectivorous bats. This is likely because these structures do not alter the acoustic signature perceived through echolocation nor constitute an effective physical barrier during contact (Barber & Conner, 2007; Fullard *et al.*, 2008). Likewise, such barbed hairs would not be expected to offer any protection against mammalian predators, including domestic cats or other small felines, as these predators rely primarily on visual or mechanical cues rather than ultrasonic detection. Therefore, the function of these barbed hairs may be unrelated to antipredator defense and could instead be associated with sensory or camouflage roles (Fullard *et al.*, 2008).



Figure 1. Predation event of a domestic cat (*Felis catus*) on the nocturnal moth *Ascalapha odorata* in Santa Ana, Francisco Morazán, Honduras.



Figure 2. A: Juvenile *Ctenosaura similis* preyed upon by a domestic cat (*Felis catus*) in Útila, Islas de la Bahía, Honduras. B: The cat holding the dead iguana, reflecting instinctive hunting behavior.

The second event was recorded on June 19, 2025, at 09:24 h, on Útila Island, Islas de la Bahía Department, Honduras. During a visit to a household in an urban area, distant from the conservation site Iguana Station an organization focused on the reproduction and conservation of *Ctenosaura bakeri* a domestic cat (*Felis catus*) was observed with a juvenile *Ctenosaura similis* (Fig. 2A), commonly known as the black iguana or garrobo. The iguana was already dead at the time of observation, and the cat held it as prey (Fig. 2B), suggesting instinctive hunting behavior rather than predation for consumption.

Discussion

These events reinforce the evidence of domestic cat predation on various wildlife taxa. In the case of *A. odorata*, previous studies, such as Sánchez-Soto (2019), have documented cats preying on nocturnal moths in Mexico, confirming that this phenomenon occurs in the region. Regarding *C. similis*, this species had already been documented in Útila Island as a predator of *C. bakeri*, which is categorized as Critically Endangered by the IUCN (Maryon et al., 2020). Additionally, *C. similis* has been reported as prey for the snake *Oxybelis fulgidus* (Colubridae) (Brown et al., 2019). This study represents the first record of *C. similis* predation by domestic cats.

The threat posed by feral cats to insular reptile populations is well documented (Bonnaud et al., 2011), but they also constitute a significant threat to continental reptiles, particularly threatened species (Dickman, 1996). In southern Australia, annual predation by cats has been estimated at approximately 700 reptiles, compared to 150 birds and 50 native mammals (Read & Bowen, 2001).

Finally, we recommend implementing mitigation measures to reduce the ecological damage caused by cats, as there is sufficient evidence of their global impact (Clodoaldo et al., 2023; Armas, 2021). Although none of the species preyed upon in this study are currently listed as threatened by the IUCN Red List (2025), it is very likely that this phenomenon occurs near protected areas with endemic and threatened species in Honduras (Cubas-Rodríguez & Cupul-Magaña, 2024).

Acknowledgements

The co-author of this work expresses her gratitude to the Centro de Estudios Marinos (CEM) for their support. We also thank Dr. Eric Pierre Van den Berghe for his assistance in identifying the nocturnal butterfly. Our sincere appreciation goes to Editor Jean-Michel Maes for his support throughout the editorial process, as well as to the anonymous reviewers for their valuable observations and comments.

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