

FIRST RECORD OF A PREDATION EVENT ON A COMMON HOUSE GECKO *HEMIDACTYLUS FRENATUS* (SQUAMATA: GEKKONIDAE) BY A MILK FROG *TRACHYCEPHALUS TYPHONIUS* (ANURA: HYLIDAE) IN AN URBAN AREA

PRIMER REGISTRO DE DEPREDACIÓN DE UN GECKO CASERO COMÚN *HEMIDACTYLUS FRENATUS* (SQUAMATA: GEKKONIDAE) POR UNA RANA LECHERA *TRACHYCEPHALUS TYPHONIUS* (ANURA: HYLIDAE) EN ZONA URBANA

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Resumen.— La dieta de la rana lechera (*Trachycephalus typhonius*) consiste principalmente de artrópodos terrestres, aunque hay algunas observaciones que involucran pequeños vertebrados como ranas, lagartijas y murciélgos. Reportamos el primer registro de un evento de depredación de *T. typhonius* sobre un gecko casero común (*Hemidactylus frenatus*) en una zona urbana. La observación ocurrió en la cochera de una vivienda en la ciudad de Chetumal, Quintana Roo, México.

Palabras clave.— Ambiente antropizado, Chetumal, dieta, lagartijas introducidas, México, Quintana Roo, ranas arborícolas.

Abstract.— The diet of the milk frog (*Trachycephalus typhonius*) consists mainly of terrestrial arthropods, although there are some observations involving small vertebrates such as frogs, lizards and bats. We report the first record of a predation event of *T. typhonius* on a common house gecko (*Hemidactylus frenatus*) in an urban area. The observation took place in the garage of a house in the city of Chetumal, Quintana Roo, Mexico.

Keywords.— Anthropized environment, Chetumal, diet, introduced lizards, Mexico, Quintana Roo, tree frogs.

Trachycephalus typhonius, the milk frog, is widely distributed in the lowlands of the Neotropical region, from Mexico southward to northern Argentina (Savage, 2002; AmphibiaWeb, 2024). In Mexico, it inhabits the Pacific Ocean slope from southern Sinaloa to Chiapas, and the Gulf of Mexico slope from central Tamaulipas to the Yucatán Peninsula (AmphibiaWeb, 2024; Marín & Mora, 2022). This species is catalogued as Least Concern (LC) in The International Union for Conservation of Nature's Red List of the Threatened Species (IUCN SSC Amphibian Specialist Group, 2023).

The milk frog is considered a generalist and opportunistic nocturnal predator, which allows it to occupy natural and human-disturbed environments, including urban areas (Mineros-

Ramírez, 2016). It feeds mostly on terrestrial arthropods (Lee, 1996; Mineros-Ramírez, 2016) but small vertebrates such as anurans (Dundee & Liner, 1985; Campbell, 1998; Loebmann, 2013), lizards (Marín & Mora, 2022) and bats (Strüssmann & Sazima, 1991) have also been recorded as prey items.

Hemidactylus frenatus, the common house gecko, is a lizard native to Asia and the Indo-Pacific region but due to introductions by human means outside of its natural range, currently it is established in at least 87 locations around the world, including Mexico, where it inhabits both natural and disturbed environments (Díaz-Gamboa et al., 2020; Global Invasive Species Database, 2024). Like the milk frog, this gecko is a mainly nocturnal opportunistic hunter, it preys on a wide range of insects and spiders (Global Invasive Species Database, 2024). Both species are commonly found foraging on building walls near artificial lighting (Lee, 1996; Díaz-Gamboa et al., 2020;



Figure 1. *Trachycephalus typhonius* y *Hemidactylus frenatus* forrajeando en el exterior de una casa habitación en Bacalar, Quintana Roo, México. Observación realizada el 20 de octubre de 2024 a las 19:24 h. Foto: José Rogelio Cedeño-Vázquez.

Figure 1. *Trachycephalus typhonius* and *Hemidactylus frenatus* foraging outside a house in Bacalar, Quintana Roo, Mexico. Observation made on 20th October 2024 at 19:24 h. Photo: José Rogelio Cedeño-Vázquez.

Global Invasive Species Database, 2024; personal observation, Fig. 1), which allows them to interact more easily in urban areas. Herein, we report the first record of a predation event of *T. typhonius* on *H. frenatus* in an urban area of the Mexican Caribbean.

On September 27th, 2024 at 22:48 h an adult milk frog was observed feeding on a common house gecko. At the moment of the finding only the toe tips of the left rear limb and part of the gecko's tail was visible out of the frog's mouth (Fig. 2). The event occurred in a garage at a residence of Chetumal, Quintana Roo, Mexico (18.50002° N, 88.32579° W; 10 m a.s.l.). The frog consumed the gecko on a wood column at 1.69 m above the ground, close to a lamp located above the predation scene.

A previous record of a predation event of *T. typhonius* on *H. frenatus* was documented in a house wall located in a grassland area with scattered trees, near to a mangrove swamp at Bajamar, Puntarenas, Costa Rica on the Pacific Ocean slope (Marín & Mora, 2022). To the best of our knowledge, our observation is the first to occur in an urban area on the Caribbean coast of Mexico. This report confirms that this predatory relationship is common, particularly in human housing situations (Marín & Mora, 2022).

This observation contributes to a better understanding of herpetofaunal interactions in the trophic webs of the Yucatán Peninsula (Carbajal-Márquez et al., 2019). Predator-prey interaction may play an important role in the population control of introduced exotic species as in the case of the common house gecko, which constitutes the main food source for the Yucatecan cantil (*Agkistrodon russeolus*) on the northern coast of Yucatán (Ortiz-Medina et al., 2022). Regarding ecological impacts, it's

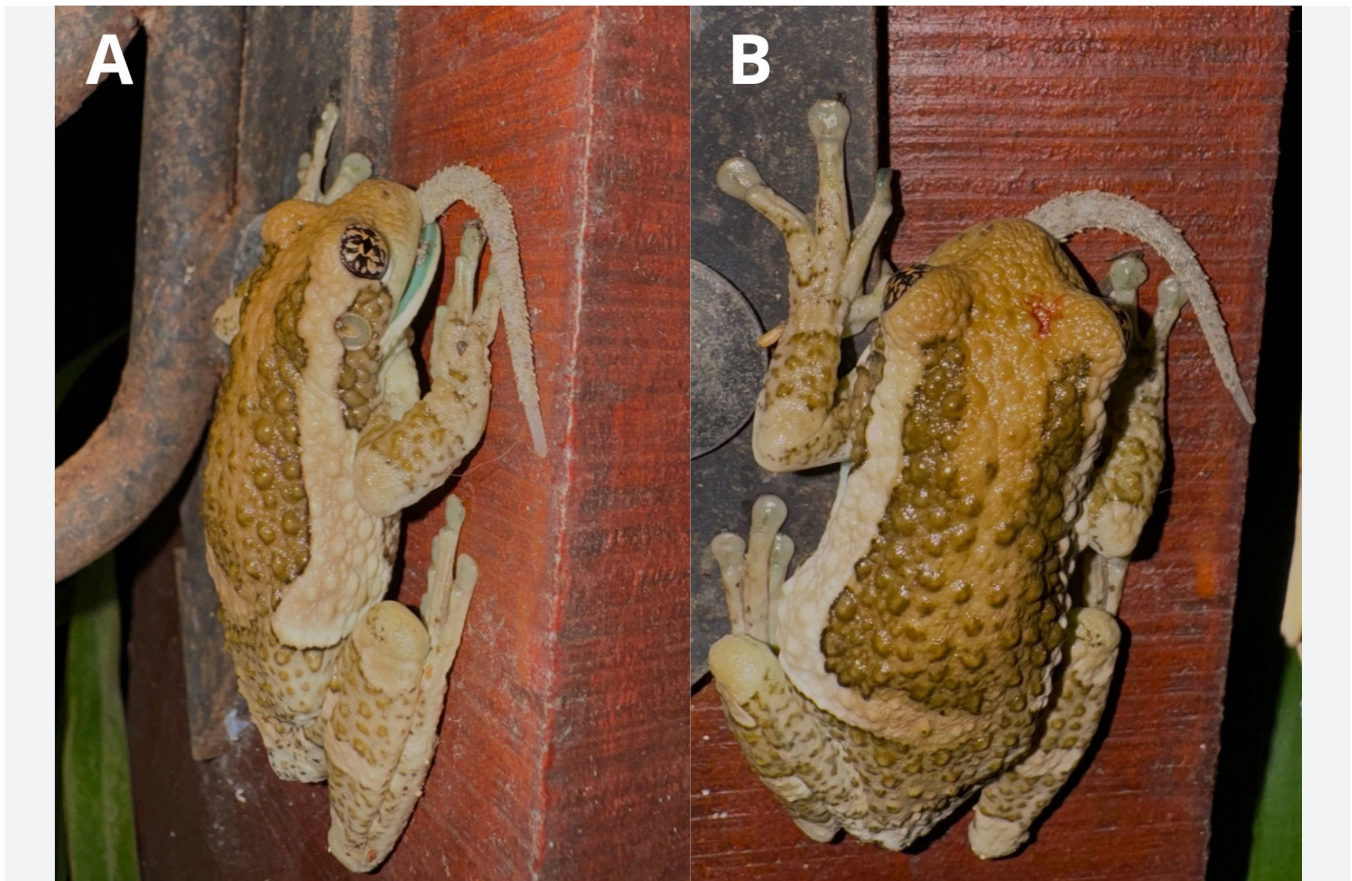


Figura 2. Vistas lateral (A) y dorsal (B) de una rana lechera adulto (*Trachycephalus typhonius*), alimentándose de un geco casero común (*Hemidactylus frenatus*) en la cochera de una vivienda de la ciudad de Chetumal, Quintana Roo, México. Fotos: José Rogelio Cedeño-Vázquez.

Figure 2. Lateral (A) and dorsal (B) views of an adult milk frog (*Trachycephalus typhonius*), feeding on a common house gecko (*Hemidactylus frenatus*) in the garage at a house in the city of Chetumal, Quintana Roo, Mexico. Photos: José Rogelio Cedeño-Vázquez.

known that the replacement of locally native gecko species by *H. frenatus*, is more pronounced in urban contexts (Global Invasive Species Database, 2024).

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