



## Predation Attempt by a Tropical House Gecko, *Hemidactylus mabouia* (Gekkonidae), on a Cuban Blue Anole, *Anolis allisoni* (Dactyloidae), in South-central Cuba

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Island ecosystems are particularly vulnerable to the introduction of alien invasive species. Multiple examples document population declines and even extinctions of insular species as a consequence of interference competition and/or direct predation by introduced species (e.g., Vitousek et al. 1996; Hanley et al. 1998; Mooney and Cleland 2001; Collins et al. 2002; O'Dowd et al. 2003; Blackburn et al. 2004; Freed et al. 2008). In the case of reptiles, invasive geckos of the genus *Hemidactylus* (Gekkonidae) have been reported as having deleterious effects on insular lizard populations (for reviews see Howard et al. 2001; Dame and Petren 2006; Rödder et al. 2008; and references therein).

The genus *Hemidactylus* comprises about 80 species naturally distributed in Africa and Asia (Carranza and Arnold 2006; Weiss and Hedges 2007). Eight species in particular are highly successful colonizers, and human-mediated introductions have occurred in many parts of the world, including South America and the West Indies (e.g., Kluge 1969; Carranza and Arnold 2006; Dame and Petren 2006; Bomford et al. 2009). In Cuba, four species (Tropical House Gecko, *H. mabouia*; West African House Gecko, *H. angulatus*; Common House Gecko, *H. frenatus*; and Mediterranean House Gecko, *H. turcicus*) have been introduced; only *H. turcicus* apparently is not established (Díaz 2014; Borroto-Páez et al. 2015). The Tropical House Gecko is the most widely distributed species of *Hemidactylus* in the insular Caribbean, with reports from over one hundred islands (Henderson and Powell 2009; Powell and Henderson 2012; Díaz 2014). The species was first reported in Cuba by Cocteau and Bibron (1843) and it is currently abundant all over the island, particularly in anthropogenic environments, where it can be observed active mostly at night on the walls and roofs of human buildings (Powell et al. 1998; Díaz 2014; Borroto-Páez et al. 2015). This gecko, which frequently forages around artificial lights

(see Henderson and Powell 2009 for a review), has a diet comprised mostly of insects, arachnids, centipedes, small crustaceans, and molluscs (e.g., Bonfiglio et al. 2006; Rocha and Anjos 2007; Iturriaga and Marrero 2013; Armas 2014, 2021, 2022; Drüke and Rödder 2017). The few documented



**Fig. 1.** Adult Tropical House Gecko (*Hemidactylus mabouia*) preying on an immature Cuban Blue Anole (*Anolis allisoni*) in an apartment in Cienfuegos, Cuba. Photograph © Rosalina Montes Espín.

accounts of saurophagy by *H. mabouia* always involved cannibalism (Zamprognio and Teixeira 1998; Bonfiglio et al. 2006; Pombal and Pombal 2010). Herein we report the first instance of a predation attempt by *H. mabouia* on a native Cuban lizard, the Cuban Blue Anole (*Anolis allisoni*).

At 2150 h on 27 January 2016, we observed a juvenile *A. allisoni* (SVL ca. 35 mm) sleeping on the frame of a window of an apartment in the Junco Sur neighborhood, Cienfuegos, Cienfuegos Province, Cuba (22.130357°N, 80.426587°W; elev. 10 m asl) that fled suddenly when pursued by an adult *H. mabouia* (SVL ca. 55 mm), which soon captured it. The gecko grasped the anole by the snout, moved its bite to the neck, and shook it vigorously (Fig. 1). After several minutes, the gecko dropped its prey and escaped, apparently disturbed by the flashlights of the camera. We immediately examined the anole and found that it was dead.

In Cuba, the Cuban Blue Anole (Fig. 2) ranges from Artemisa Province in the west to Holguín and Granma Provinces in the east and from the sea level to an elevation of 760 m asl (Rodríguez Schettino et al. 2010, 2013). The species is frequently associated with urban environments (see Henderson and Powell 2009 for a review), where the probability of interactions with *H. mabouia* is high. Observations of this and other human-commensal anoles (e.g., Cuban Green Anole, *A. porcatatus*, Cuban Brown Anole, *A. sagrei*) using human buildings as sleeping sites across the country are not unusual (T.M. Rodríguez-Cabrera, pers. obs.). Although anoles and geckos of the genus *Hemidactylus* usually differ in times when they are active, scenarios such as the one described here might be more frequent than previously thought. Also, these lizards might encounter one another near artificial lights, where anoles such as *A. allisoni* are frequently observed at night (e.g., Perry and Fisher 2006; Perry et al. 2008). During crepuscular hours in such conditions,

*H. mabouia* has been observed displaying aggressive behavior toward *A. porcatatus*, possibly a means of avoiding interference competition (Armas 2022).

To the best of our knowledge, this is the first evidence of a Tropical House Gecko outside of its native range attempting to prey on a lizard other than a conspecific. The possible impact of introduced geckos on populations of native lizards is unknown. Fortunately, most native Cuban species of lizards associated with urban environments (Rodríguez Schettino et al. 2013) are not listed in any threat category (González Alonso et al. 2012). Notable exceptions are the Cuban Broad-banded Geckolet (*Sphaerodactylus torrei*) (listed as Endangered), which is relatively common in urban environments of eastern Cuba (Fong 2017a), and the Cuban Croaking Gecko (*Aristelliger reyesi*) (listed as Critically Endangered), which may occur in rustic human buildings in western Cuba (Fong 2017b), either of which could be negatively impacted by introduced House Geckos (*Hemidactylus* spp.).

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**Fig. 2.** Male (left) and female (right) Cuban Blue Anoles (*Anolis allisoni*). This species is an abundant human commensal widely distributed in Cuba. Photographs © Raimundo López-Silvero.



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## Erratum

In this note, we stated that “the few documented accounts of saurophagy by Tropical House Geckos (*Hemidactylus mabouia*) always involved cannibalism” and that “this is the first evidence of a Tropical House Gecko outside of its native range attempting to prey on a lizard other than a conspecific.” However, we overlooked reports of this gecko preying on lizards native to the Western Hemisphere (see Borroto-Páez and Reyes Pérez 2020 and references therein). Moreover, competitive interference between this gecko and Cuban Green Anoles (*Anolis porcatius*) has been reported not only by Armas (2022), but also by Borroto-Páez and Reyes Pérez (2019).

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