



Herpetofauna of the Elemento Natural Destacado Dunas de Playa Pilar, Ciego de Ávila, Cuba

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Amphibians and terrestrial reptiles are good indicators of ecosystem health due to territoriality and their sensitivity to local changes such as habitat fragmentation (Zug et al. 2001). The Sabana-Camagüey Archipelago of Cuba is home to a wide variety of amphibians and reptiles (e.g., Garrido 1973; Estrada 2012), but it also is a territory with extensive development for tourism. Of particular interest are areas that have not been extensively studied; for example, Cayo Guillermo was not included in some surveys of the archipelago (e.g., Rivalta González et al. 2014).

The Elemento Natural Destacado Dunas de Playa Pilar (Fig. 1), designated as a protected area in 2019 as a 35-ha

extension of the Buenavista Protected Area of Managed Resources, is at the western end of Cayo Guillermo (31.30°N, 73.70°W) (Zulueta-Villaurrutia et al. 2021). Mean annual temperature is 26.5 °C, mean annual humidity is 79%, and annual rainfall of 990–1,200 mm varies seasonally with a dry season that extends from November through April. Three vegetative formations (Capote and Berazaín 1984), sandy coastal vegetation complex, sandy coastal scrub, and swamp forest, where Red Mangrove (*Rizophora mangle*) is dominant, are present (Zulueta-Villaurrutia et al. 2021).

Estrada (2012) listed 13 species of reptiles plus one questionable record, Rodríguez Schettino et al. (2013) listed 13



Fig. 1. Elemento Natural Destacado Dunas de Playa Pilar, Ciego de Ávila, Cuba.

species of reptiles, and Rodríguez-Batista et al. (2014) listed three species of amphibians and 13 species of reptiles for all of Cayo Guillermo. However, because information on which

of these species were present in the Dunas de Playa Pilar was unavailable, we conducted surveys by day (0900–1300 h) and night (2000–2300 h) twice each month from May to

Table 1. Amphibians and reptiles of the Elemento Natural Destacado Dunas de Playa Pilar, Ciego de Ávila, Cuba. Habitats: SCS = sandy coastal scrub; SF = swamp forest; SCVC = sandy coastal vegetation complex.

Species	SCS	Habitat SF	SCVC
AMPHIBIANS (ANURA)			
Bufonidae			
Eastern Cuba Giant Toad (<i>Peltophryne peltoccephala</i>)	x	–	–
Hylidae			
Cuban Treefrog (<i>Osteopilus septentrionalis</i>)	x	x	x
Eleutherodactylidae			
Cuban Flat-headed Frog (<i>Eleutherodactylus planirostris</i>)	x	–	–
REPTILIA (SQUAMATA)			
Sphaerodactylidae			
White-throated Clawed Gecko (<i>Gonatodes albogularis</i>)	x	–	–
Three-banded Geckolet (<i>Sphaerodactylus nigropunctatus granti</i>)	x	–	–
Phyllodactylidae			
American Wall Gecko (<i>Tarentola americana americana</i>)	x	–	x
Dactyloidae			
Cuban Blue Anole (<i>Anolis allisoni</i>)	x	–	x
Cuban Twig Anole (<i>Anolis angusticeps</i>)	x	–	x
Cuban Coast Anole (<i>Anolis jubar santamariae</i>)	x	–	x
Cuban Green Anole (<i>Anolis porcatius</i>)		–	x
Cuban Brown Anole (<i>Anolis sagrei sagrei</i>)	x	–	x
Iguanidae			
Cuban Iguana (<i>Cyclura nubila</i>)	x	x	–
Leiocephalidae			
Cuban Striped Curlytail (<i>Leiocephalus stictigaster septentrionalis</i>)	x	–	x
Teiidae			
Cuban Groundlizard (<i>Pholidoscelis auberi orlandoï</i>)	x	–	x
Amphisbaenidae			
Cuban Brown Wormlizard (<i>Amphisbaena cubana</i>)	x	–	–
Boidae			
Cuban Boa (<i>Chilabothrus angulifer</i>)	x	–	x
Dipsadidae			
Cuban Lesser Racer (<i>Caraiiba andreae morenoi</i>)	x	–	–
Cuban Racer (<i>Cubophis cantherigerus schwartzi</i>)	x	–	–
REPTILIA (CROCODYLIA)			
Crocodylidae			
American Crocodile (<i>Crocodylus acutus</i>)	–	x	–

October 2020 throughout the three vegetative formations in the newly designated protected area.

We found three species of amphibians and 16 species of reptiles in the Dunas de Playa Pilar (Table 1; Fig. 2). Although Rodríguez-Batista et al. (2014) also listed three species of amphibians, their list included the Cuban Groin-spotted Frog (*Eleutherodactylus atkinsi*), which we did not find during our surveys, although we did encounter Cuban Flat-headed Frogs (*E. planirostris*), which had not been recorded from the key. We failed to find two reptilian species, the Central Pallid Anole (*Anolis centralis*) and the Cuban Brown Blindsnake (*Typhlops*



Fig. 2. Some of the reptilian species that occur in the Elemento Natural Destacado Dunas de Playa Pilar, Ciego de Ávila, Cuba. From top to bottom: Cuban Striped Curlytail (*Leiocephalus stictigaster septentrionalis*), Cuban Iguana (*Cyclura nubila*), Cuban Twig Anole (*Anolis angusticeps*), and Cuban Lesser Racer (*Caraiba andreae*). Photographs by Odey Martínez Llánes.

lumbricalis), that had been recorded from Cayo Guillermo (Estrada 2012; Rodríguez Schettino et al. 2013; Rodríguez-Batista et al. 2014), nor did we find the Cienfuegos Blindsnake (*Cubatyplops satelles*) that Estrada (2012) had listed as a questionable record. However, we did find the White-throated Clawed Gecko (*Gonatodes albogularis*), Cuban Blue Anole (*Anolis allisoni*), Cuban Green Anole (*Anolis porcatius*), Cuban Boa (*Chilabothrus angulifer*), and Cuban Lesser Racer (*Caraiba andreae morenoi*), none of which had been recorded from Cayo Guillermo. The three lizards, all known as human commensals (e.g., Henderson and Powell 2009; Armas 2020; Rodríguez-Cabrera et al. 2022), might well have arrived only recently, likely with shipments of ornamental plants destined for nearby tourist developments. We found only two individuals each of the two species of snakes, three in leaf litter in coastal scrub and one boa in the sandy coastal vegetation complex. Based on the low number of encounters, we believe that these snakes are not abundant and might have been overlooked during previous surveys.

All of the 19 species we found in the Dunas de Playa Pilar occur elsewhere in Cuba, but *Leiocephalus stictigaster septentrionalis*, *Pholidoscelis auberi orlandoi*, *Cubophis cantherigerus schwartzi*, and *Caraiba andreae morenoi* are subspecies endemic to the Archipelago Sabana-Camagüey (Rodríguez-Batista et al. 2014). Of the 19 species, 17 are listed as being of Least Concern (LC) on the IUCN Red List (IUCN 2022); only the Cuban Iguana and American Crocodile are considered Vulnerable (VU).

Acknowledgements

We thank Frank González Blanco and Janny Prado Rojas from “Flora and Fauna” for their help with the inventories, Odey Martínez Llánes (Empresa Provincial Company de Protección de Flora y Fauna) for permission to use his photographs, and Lillian Martínez Pérez for helpful comments on an earlier draft of this manuscript.

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