REPTILES & AMPHIBIANS

INTRODUCED SPECIES

The Rainbow Boa, *Epicrates cenchria* (Linnaeus 1758) (Squamata: Boidae), Another Established Non-native Snake in Florida

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The Rainbow Boa, *Epicrates cenchria* (Linnaeus 1758), is indigenous to much of the Amazon Basin of South America, with a disjunct population in the Atlantic Forest of Brazil (Passos and Fernandes 2009). It has been introduced in non-indigenous regions of Brazil and Chile (Eterovic and Duarte 2002; Kraus 2009) and Florida, USA (Krysko et al. 2011). This nocturnal species reaches 185 cm SVL and 210.5 cm TL (Passos and Fernandes 2009) and is characterized by having a brown dorsal background with lighter tan black-bordered blotches and lateral black with a light crescent of blotches, and a solid light-colored venter (Passos and Fernandes 2009). It inhabits Amazonian and Atlantic vegetation associations (Passos and Fernandes 2009). This species is popular in the pet trade (Mattison 2007), which makes it susceptible to being either accidentally or intentionally introduced. In this paper, we document numerous (n = 9) adults and neonates of both sexes in a small, mostly undeveloped area of Homestead, Miami-Dade County in southern peninsular Florida. This area is located just to the west of the Turkey Point Power Plant and the entrance to Biscayne National Park and has an arbitrary boundary from SW 301st Street to the north, SW 344th Street to the south, Biscayne Bay to the east, and just west of the Homestead-Miami Speedway to the west (Fig. 1). Habitats in this area consist of tropical hardwood hammocks with oolitic limestone at the surface, tree farms, and farm fields.

In August 2019, the first known neonate of unknown sex was collected alive-on-road (AOR) on SW 177th Avenue, 0.12 km north of SW 328th Street (25.46429, -80.37933) by Mark Lampart (photographic voucher UF-Herpetology 194711). In August 2019, a neonate of unknown sex was collected AOR on SW 177th Avenue, 0.12 km north of SW 328th Street (25.46429, -80.37933) by an unidentified person (photographic voucher UF-Herpetology 194712). On 27 July 2021 at 0723 h, an adult of unknown sex was collected dead-on-road (DOR) on SW 344th Street and SW 117th Avenue (25.44812, -80.37946) by Michael Lloret (photographic voucher UF-Herpetology 194713). In August 2021, a male neonate was collected AOR on SW 328th Street, 2.48 km east of SW 117th Avenue (25.46292, -80.35485) by Ryan Terry (Fig. 2A; photographic voucher UF-Herpetology 194714). In August 2021, an adult female was collected AOR on SW 344th Street, 0.25 km west of SW 142 Avenue (25.44790, -80.42256) by Keith Wildman (Fig. 2B; photographic voucher UF-Herpetology 194715). In July 2022, a female neonate was collected AOR on SW 117th Avenue, 0.12 km south of SW 320th Street (25.46919, -80.37952)

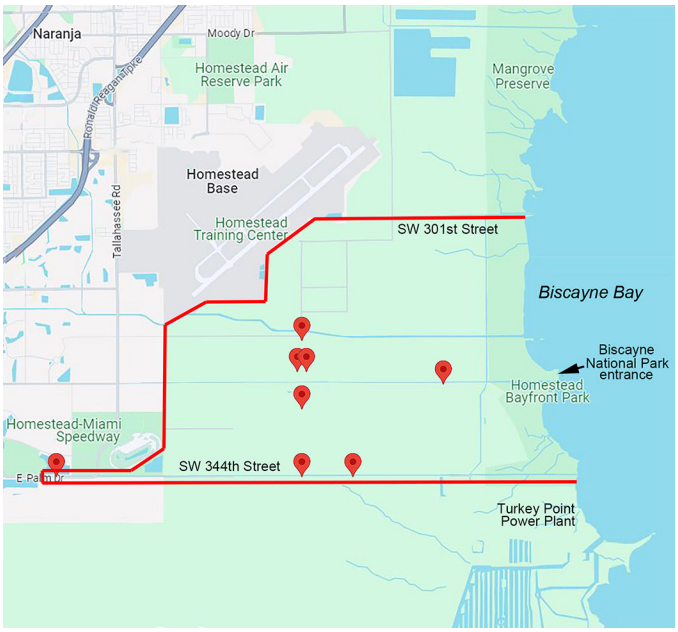

Figure 1. Study area in Homestead, Miami-Dade County, Florida, where Rainbow Boas (*Epicrates cenchria*) have been collected (red symbols). Note that no physical barriers separate the area north of SW 344th Street and the undeveloped area (~230 km^2) to the south, which is bounded by Card Sound to the south, Biscayne Bay to the east, and U.S. Highway 1 to the west.

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by an unidentified person (Fig. 2C; photographic voucher UF-Herpetology 194716). In July 2022, an adult male was collected AOR on SW 344th Street, 0.79 km east of SW 117th Avenue (25.44798, -80.37162) by an unidentified person (photographic voucher UF-Herpetology 194717). In July 2022, an adult of unknown sex was collected AOR within the boundaries of the area surrounding the entrance to Biscayne National Park (Fig. 1) by an unidentified person (Fig. 2D; photographic voucher UF-Herpetology 194718). On 21 September 2022 at 0802 h, an adult of unknown sex was collected DOR on SW 117th Avenue, 0.34 km south of SW 328th Street (25.45974, -80.37956) by Michael Lloret (photographic voucher UF-Herpetology 194719).

All Rainbow Boas were found crossing roads at night or in the early morning. Additional capture reports from this area exist beyond this paper; however, we did not receive permission to use this additional information. Although we provide street names that show an arbitrary boundary of collection localities and allow vehicle access to the general area, much more undeveloped areas exist to the north and south where snakes likely persist without being detected. For example, three known individuals were collected on SW 344th Street and because no physical barriers define the southern right of way, this species has likely invaded the large adjacent area to the south. This area has gated access only and is managed by the South Florida Water Management District and Turkey Point Power Plant, and consists of approximately 230 km^2, bounded by Card Sound to the south, Biscayne Bay to the east, and U.S. Highway 1 to the west, of undeveloped land crossed transversely with manmade freshwater canals and ditches. Although *E. cencrhria* has been introduced via the pet trade without evidence of establishment in other areas of Florida such as Alachua and Sumter counties (Krysko et al. 2011), the multiple captures consisting of adults of both sexes and neonates for more than three years in Homestead, Miami-Dade County suggest reproduction has occurred in the wild and the species is now established (Krysko et al. 2016). At least 40 known introduced species of snakes have been recorded in Florida (Krysko et al. 2016, pers. obs.), six of which are now established (Krysko et al. 2011, 2016, 2019).

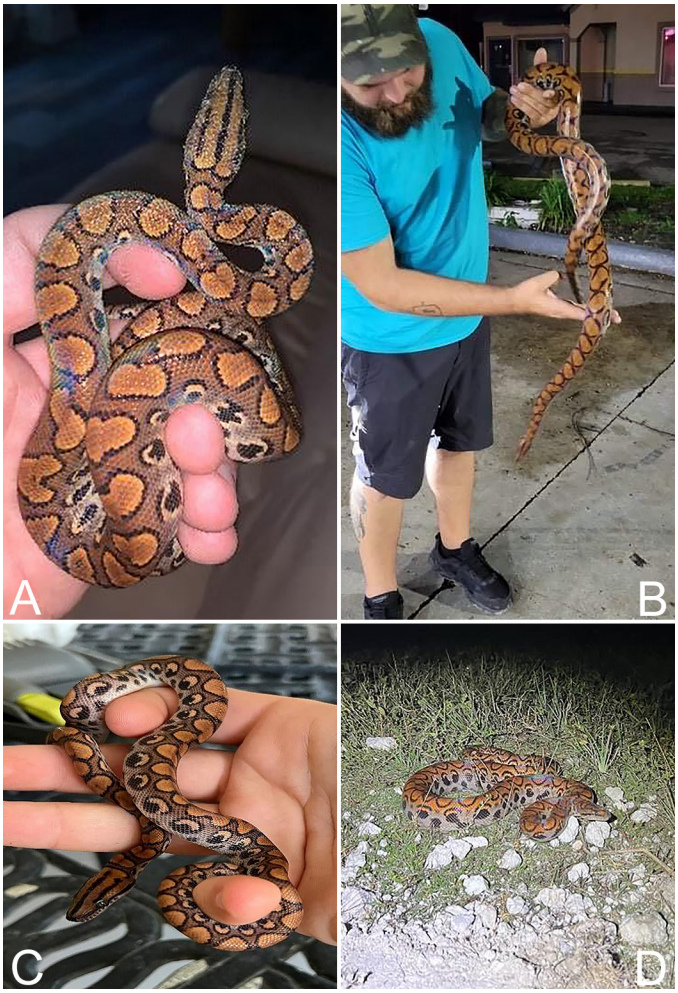

Figure 2. Introduced Rainbow Boas (*Epicrates cenchria*) from Homestead, Miami-Dade County, Florida, USA: Neonatal male (photographic voucher UF-Herpetology 194714), photograph by Jonathan G. Asher (A); adult female (photographic voucher UF-Herpetology 194715), photograph by Keith Wildman (B); neonatal female (photographic voucher UF-Herpetology 194716), photograph by Jonathan G. Asher (C); adult of unknown sex (photographic voucher UF-Herpetology 194718), unidentified photographer (D).

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