New County Records for Introduced Reptiles in St. Lucie County, Florida, with Some Observations on Diets

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During field surveys from July through November 2018, the University of Florida (UF) documented new county records of several introduced reptilian species in St. Lucie County, Florida. Dr. Coleman Sheehy III, Florida Museum of Natural History, confirmed the identity of all species from the cited photographic vouchers.

Dumeril’s Boa, *Acrantophis dumerili*, is a common constrictor in forests and cultivated areas of Madagascar (Raxworthy 2003; Glaw and Vences 2007). Eight introductions (to Broward, Miami-Dade, Collier, and Okaloosa Counties) have been reported previously from Florida (Hanslowe et al. 2015; www.eddmaps.org). On 10 September 2018, homeowners removed a neonatal *A. dumerili* (photographic voucher UF-Herpetology 188617; SVL 493 mm; Fig. 1) from their property in Fort Pierce, St. Lucie County, Florida (27.447601°N, -80.431949°W; datum WGS84). On 2018, we collected a roadkilled *Chamaeleo calyptratus* along Orange Avenue, 0.27 km west of the Florida Turnpike in St. Lucie County, Florida (27.447601°N, -80.431949°W; datum WGS84). At 2024 h on 4 September 2018, we observed a live *C. calyptratus* sleeping out of reach in a tree 0.28 km west of the Florida Turnpike in St. Lucie County (27.447169°N, -80.430139°W; datum WGS84). At 1158 h on 13 August 2018, we collected a roadkilled *Chamaeleo calyptratus* from the Florida Turnpike in St. Lucie County, Florida (27.447601°N, -80.431949°W; datum WGS84). At 1051 h on 26 October 2018, we collected a live adult male *C. calyptratus* (photographic voucher UF-Herpetology 188618; Fig. 2) that was foraging in a tree about 1 m above the ground.

**Fig. 1.** Neonatal Dumeril’s Boa, *Acrantophis dumerili* (photographic voucher UF-Herpetology 188617) collected in 2018 and transferred by Ken Gioeli, Fort Pierce, Florida. Photograph by Emily Gati.
on Orange Avenue, 0.25 km west of the Florida Turnpike in St. Lucie County (27.447278°N, –80.430179°W; datum WGS84). On 29 October 2018, we collected another live adult male *C. calyptratus* (photographic voucher UF-Herpetology 188619; Fig. 3) basking on a fence at 1159 h, about 1 m above the ground and 0.1 km west of the previous sighting (27.44739°N, –80.431191°W; datum WGS84). The dominant vegetation surrounding the site is *Sabal palmetto*. The source of these animals is likely on adjacent private property that includes the former residence of a reptile dealer, where owners did not grant access and indicated that they will prosecute trespassers.

The Tokay Gecko, *Gekko gecko*, which is native to southeastern Asia, has been established elsewhere in Florida since the 1960s as a result of intentional releases around residences and independent introductions through the pet trade (King and Krakauer 1966; Krysko and Daniels 2005). At 2008 h on 7 November 2018, we collected a male *G. gecko* (photographic voucher UF-Herpetology 188620; Fig. 4) from the side of a bridge in St. Lucie County, Florida (27.44793°N, –80.427628°W; datum WGS84). Previous investigations of the diet of this species in Florida revealed primarily roaches,
caterpillars, spiders, and beetles (Meshaka et al. 1997). However, *G. gecko* is known to readily consume other prey, including small vertebrates such as birds, reptiles, and rodents, which may have implications for the potential impact of this species on native wildlife in Florida (Bucol and Alcala 2013).

We collected an adult male Red-footed Tortoise, *Chelonoidis carbonarius* (photographic voucher UF-Herpetology 188621; Fig. 5) at 1215 h on 31 October 2018 from the side of Orange Avenue, 0.27 km west of the Florida Turnpike in St. Lucie County (27.447296°N, –80.430179°W; datum WGS84). This species has been introduced into Florida via the pet trade, but without any evidence of reproduction (Meshaka et al. 2004; Krysko et al. 2011a). At least one reported sighting occurred in the same area months prior to our observation (EDDMS 2018), but this is the first vouchered individual for St. Lucie County. We documented the presence of Gopher Tortoises (*Gopherus polyphemus*), a state-threatened species, in adjacent areas. Further investigation of the area may shed light on the potential for interspecific competition.

In addition to these new county records, we provide the first known dietary observations for Dumeril’s Boa, *Acrantophis dumerili* Jan 1860, and Veiled Chameleon, *Chamaeleo calyptratus* Duméril and Bibron 1851, in their introduced ranges in southern Florida. This information, although anecdotal, can improve our understanding of potential effects on local ecosystems.

*Acrantophis dumerili* is an opportunistic feeder that can be active both nocturnally and diurnally and can exhibit both arboreal and terrestrial behavior (Raxworthy 2003; Vences and Glaw 2003; Gardner et al. 2017). The juvenile (Fig. 1) had attempted to consume an invasive Cane Toad (*Rhinella marina*) when found during the day. We performed a necropsy on the specimen and found the upper gastrointestinal tract (GI) empty. However, some remains in the lower GI revealed insect fragments, indigestible plant material, and detritus (grains of sand or quartz), all of which were probably ingested adventitiously while attempting to capture prey or originated in the gut of a prior prey item such as a lizard or amphibian (Pendlebury 1974).

*Chamaeleo calyptratus* is primarily arboreal and insectivorous and forages actively during the day (Schmidt 2001). We examined a fecal sample that one of the chameleons (Fig. 2) egested two days after capture. Most of the sample had been digested, leaving only chitinous insect fragments (Fig. 6) or...
indigestible plant material. We identified insects to family when possible and found at least two individual broad-headed bugs (family Alydidae), one leaf-footed bug (Coreidae), one green lacewing (Chrysopidae), two wasps (Scoliidae and Tippiidae), one cicada (Cicadidae), an unidentified beetle, and an unidentified caterpillar. Most of the ingested plant material consisted of Brazilian Pepper (Schinus terebinthifolius) seeds, a highly invasive plant in Florida sometimes dispersed through reptilian feces (Jackson and Jackson 2007).

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Literature Cited


