



Attempted Predation on a Smooth-scaled Worm Lizard, *Gymnophthalmus underwoodi* (Grant 1958) by a Rainbow Whiptail, *Cnemidophorus lemniscatus* (Linnaeus 1758) in Suriname

Rawien Jairam

Vertebrate Department, National Zoological Collection of Suriname, Anton de Kom University, Leysweg-86, Suriname (rawien_2000@yahoo.com)

The lizard genus *Cnemidophorus* (Wagler 1830) comprises sixteen currently recognized species (Harvey et al. 2012). The Rainbow Whiptail (*Cnemidophorus lemniscatus*) ranges throughout much of Central and northern South America. Most prey items taken by *C. lemniscatus* are invertebrates (Hoogmoed 1973; Avila Pires 1995), but plant material (Vitt et al. 1997; Mijares-Urrutia et al. 1997), including fruits (Vitt and Carvalho 1995; Vitt et al. 1997), also are consumed. Although the diet might vary seasonally (Mesquita and Colli 2003), I found no record of *C. lemniscatus* taking any vertebrate prey.

I herein document the first observed predation attempt by *C. lemniscatus* on a Smooth-scaled Worm Lizard (*Gymnophthalmus underwoodi*) on Tonka Island (4°55'N, 55°07'W), located in the Professor Dr. Ir. W. J. van Blommenstein Lake in Suriname. The van Blommenstein Lake, more commonly referred to as Lake Brokopondo due to its location in the district of Brokopondo, is one of the oldest reservoirs in the tropics (Van der Heide 1982; Mol et al. 2007). The Brokopondo Lake has a surface area of approximately 1,600 km² and contains approximately 1,100 islands (Van der Heide 1982), although this number varies when high water levels “create” new islands or low levels connect islands close to shore with the mainland. Tonka Island, which has been isolated from the mainland for approximately 52 years, is a well-known tourist destination. In addition to accommodating tourists, its owner, Frits van Troon, actively promotes biodiversity-related research. The presence of basic accommodations, a relatively short distance from the capital, and a diversity of habitats make it an ideal location for students.

During a fieldtrip in April 2016, I led a group of five students conducting a survey of the herpetofauna on the grounds. We noticed a *C. lemniscatus* apparently disturbed

by us walking through the trimmed grass field. Closer inspection revealed that it had something in its mouth that was still



Fig. 1. A Rainbow Whiptail (*Cnemidophorus lemniscatus*; top) and a Smooth-scaled Worm Lizard (*Gymnophthalmus underwoodi*) from Tonka Island, Suriname.

moving. Approaching carefully, we identified the object as a *G. underwoodi*, a species we had already documented during the morning survey. Although we retreated quietly, the *C. lemniscatus*, disturbed by our presence, shook the captured *G. underwoodi* a few times and then released it. I captured the *C. lemniscatus* and, after some searching in the grass, spotted the *G. underwoodi*, which was collected by one of the students. Unfortunately, photographs taken of the *C. lemniscatus* with the *G. underwoodi* in its mouth failed to show the predation attempt due to distance and the inadequacies of our simple camera. After completion of the survey, I placed both individuals in a container hoping that the *C. lemniscatus* would resume its efforts to catch the *G. underwoodi*, but apart from biting it a few times, which might have occurred due to the stress of confinement, we observed no other predatory behaviors. Both specimens were euthanized, fixed in 4% formalin in the field, subsequently transferred to 70% ethanol, and accessioned in the National Zoological Collection of Suriname (NZCS) as NZCS R683–684.

One possible explanation for the selection of *G. underwoodi* as prey by *C. lemniscatus* would be the relative abundance of the former on Tonka Island. During the two-hour survey, which covered an area of approximately 3.4 ha, we counted 22 *C. lemniscatus* and 15 *G. underwoodi* (Fig. 1). The only other lizard species observed were Giant Ameivas (*Ameiva ameiva*), introduced Tropical House Geckos (*Hemidactylus mabouia*), and Mourning Geckos (*Lepidodactylus lugubris*). An analysis of the stomach contents of the *C. lemniscatus* specimen revealed only a few invertebrates. Additional examination of stomach

contents of *C. lemniscatus* and *A. ameiva* might determine whether or not this predation attempt was an isolated event.

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