

Possible predation on the frog *Leptodactylus validus* (Anura: Leptodactylidae) by the spider *Ancylometes bogotensis* (Ctenidae) in Trinidad, W.I.

Spiders are known to feed on a variety of species, including reptiles (Correy 1988), fish (Deacon *et al.* 2015), crustaceans (Bhukal *et al.* 2015), and amphibians (White 2015). Indeed, predation on amphibians by spiders has been recorded quite frequently, and encompasses a variety of species of amphibians (Menin *et al.* 2005; Toledo 2005). In the Neotropics, the family Ctenidae has been reported as one of the dominant groups of spiders preying on amphibians (Menin *et al.* 2005; Barbo *et al.* 2009; Pinto and Costa-Campos 2017). Although these predation reports highlight species of frogs belonging to a variety of families, including Leptodactylidae, none, as far as we are aware of, include the species *Leptodactylus validus* (Garman 1888).

On 18 November 2017, at 1900h, while conducting a herpetofauna field trip in the Bush Bush Wildlife Sanctuary, Nariva Swamp, Trinidad (UTM 20N 714726, 1148978) at an elevation approximately 15–25 m above sea level), we witnessed possible predation on the frog *L. validus* by the spider *Ancylometes bogotensis* (Keyserling 1877) (Figure 1). We did not observe the initial capture of the frog by the spider, but we stayed to observe the behaviour for about ten minutes. The spider appeared to have had its fangs gripped onto the rear end of the frog, between its hind legs. The frog was active and appeared to be trying to escape, thus we believe the capture of the frog probably occurred just prior to our initial observation. The frog was able to move a few centimetres but it was unable to break free of the spider. The apparent predation took place along a trail that had leaf litter on the forest floor, with mostly closed canopy above. There was a tree stump on the trail and a two-foot-wide ditch of water nearby where the attack occurred. The trail was approximately 3 m across. The forest type in Bush Bush Wildlife Sanctuary consists of seasonal evergreen forest (Beard 1946). We observed many other *L. validus* in the leaf litter nearby and along the trail, and we speculate that *A. bogotensis* may be commonly preying on this species in the area.

We identified *L. validus* based on the description in Murphy (1997) and Murphy *et al.* (2018), and the identification was subsequently confirmed by John Murphy from the photograph. *Leptodactylus validus* is a medium-sized terrestrial frog attaining a maximum snout-to-vent length of 50 mm which is widespread throughout Trinidad and has been recorded in Bush Bush Wildlife Sanctuary prior to our observation (Murphy 1997). The tympanic fold of *L. validus* extending to the shoulder, lack of a white lateral blotch bordered by a more dorsal dark stripe, and a lack of a mid-dorsal stripe on the dorsum

will readily distinguish it from other Leptodactylidae species on Trinidad, including *Adenomera* and *L. nesiotus* (Murphy *et al.* 2018). We noted the similarity of *A. bogotensis* by comparing our photographs to those in other recent publications of the spider preying on a variety of species in Trinidad (Bhukal *et al.* 2015; Deacon *et al.* 2015; White 2015). This identification was confirmed by Dr Höfer of the State Museum of Natural History Karlsruhe in Germany who added that the spider was a female *Ancylometes*. *Ancylometes bogotensis* is found throughout the Neotropical region from Bolivia to Nicaragua, and is the only species from this genus known from Trinidad (Höfer and Brescovit 2000). We did not collect any specimens, as an additional permit is required to collect within the Wildlife Sanctuary. As such, we did



Fig. 1. *Ancylometes bogotensis* with captured *Leptodactylus validus*. Photo Renoir J. Auguste

not gather measurements of the frog and the spider, nor did we stay long enough to witness *A. bogotensis* consuming the *L. validus*. We postulate that our report further adds to the literature that spiders are important predators to a variety of amphibian species.

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