Amphibians have a wide variety of predators in all major groups of vertebrates, in many of invertebrates and even in carnivore plants (Duellman and Trueb, 1994; Wells, 2007). Due to their gregarious behaviour, abundance and diversity in microhabitats used during different life-stages, they may contribute significantly to the dynamics of communities in energy flow (McCormic and Polis, 2005; Wells, 2007; Cortés-Gómez et al., 2015), although there is few quantitative information about these interactions (Toledo, 2005). In the Neotropics, spiders (Arachnida, Araneae) are considered an important source of mortality in amphibians, with cases reported for the families Ctenidae, Lycosidae, Pisauridae, Sparassidae and Theraphosidae (Menin, Rodrigues & Azevedo, 2005; Toledo, 2005; Pombal Jr, 2007; Barbo et al., 2009; De-Carvalho et al., 2010; Maffei et al., 2010; Amaral et al., 2015).

Leptodactylus fuscus (Schneider, 1799) is a medium sized (32.4–53.3mm) leptodactylid frog broadly distributed throughout South America, from Panama to northern Argentina (Heyer, 1978; De Sá et al., 2012). Presently, there are three lineages recognized for the species (Camargo et al., 2006; De Sá et al., 2012): the first one that includes Central American, Guianan and Amazonian populations, the second including Bolivia and northwest Argentina, and the last including populations from the east and southern part of South America. Populations of at least the first and the southeastern clades present similar reproductive ecology (Lucas et al., 2008), where males build ovoid subterranean chambers in the dry margin of ponds, exhibit territorial defense in the surrounding area and attract females leading them to the chambers. For Cerrado and Pantanal populations (probably south clade), it has been stated that they have opportunistic and generalist feeding behavior (De-Carvalho et al., 2008; Sugai et al., 2012).

Ancylometes concolor (Perty, 1833) is a large spider belonging to the ecological guild of the nocturnal ground ambushers (Dias et al., 2010), distributed throughout southern to central South America in Brazil, Bolivia, Paraguay and Argentina (World Spider Catalog, 2018). It is also considered to be an aquatic spider because it can be encountered in moist neotropical environments near water where the spider may either stay on the water surface or go below. This species is one of the largest araneomorph spiders, with the male body length of approximately 20 mm and the female body length of 32 mm. Ancylometes concolor males are lighter brown whereas females are generally darker brown. They have been observed preying on insects, tadpoles, fish and frogs like hylid frogs (Carvallo & Martinez, 1961; Höfer & Brescovit, 2000).

On December 27th, 2017 at 19:51 hours we found an adult female of Ancylometes concolor (29.8mm SVL) preying on a Leptodactylus fuscus (aprox. 35mm SVL). The observation was made in the city...
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of Caraguatay (Cordillera Department, Paraguay), at the Vapor Cué Museum, at the border of a ditch full of water whose edges had herbaceous and shrubby vegetation (25.2300°S 56.7875°W). In the area there were also active ground species of *Elachistocleis bicolor*, *Leptodactylus elenae*, *Physalaemus cuvieri* and *Rhinella schneideri*, albeit in lower densities. One of the authors saw the spider jumping onto the frog, grabbing it and inserting its chelicerae into its ventral area of the hind legs and abdomen. The individual of *L. fuscus* emitted agonistic sounds and barely moved its legs in attempts to escape. When disturbed, the spider did not release the frog, even when it was caught to be collected for observation. About 10 minutes later the frog died, and the spider continued to feed for about an hour and released it afterwards, probably due to the handling and movement made by the authors in the transport. At dawn the next day, the frog was almost completely degraded, remaining only some hard parts (bones) and the digested debris of other tissues, as well as fragments of the frog’s recent insect meals. The adult female specimen of *Ancylocetes concolor*, IBNP-002.373, is housed in the Invertebrate collection of the Museo Nacional de Historia Natural del Paraguay. The remains of the digested frog, mixed with fragments of the frog’s recent insect meals, are with the spider in the same vial of alcohol.

Predation on leptodactylid frogs by spiders were previously reported (Boistel and Pauwels, 2002; Menin, Rodrigues & Azevedo, 2005; Barbo et al., 2009; Menin et al., 2009; Calzada-Arciniega, 2014; Amaral et al., 2015). However, this note represents the first report of *Ancylocetes concolor* preying on *Leptodactylus fuscus*. At local level is possible that this predation event is recurrent, since several individuals of *Leptodactylus fuscus* were observed active (although not making mating calls), as well as several spiders. This opens the assumption that *Leptodactylus fuscus* is possibly part of the regular diet of *Ancylocetes concolor* where they share space. To corroborate this hypothesis are needed.

Figure 1. *Leptodactylus fuscus* being preyed upon by the spider *Ancylocetes concolor* on the vegetation near the full of water ditch. City of Caraguatay, Cordillera department, Paraguay. Photograph by Diego Bueno Villafañe.
further studies, including interaction between these species and its importance at population level.

References


