

# Tarantula binge: Predation of a large tarantula by *Leptodactylus* frog in the Peruvian Amazon

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Diet information is important for understanding species natural histories and how they interact in their ecosystems (Ceron *et al.*, 2018). *Leptodactylus* is a genus of large frog widely distributed across the South American continent (Maneyro *et al.*, 2004; Heyer, 2005). They occupy a range of habitats including tropical rainforests, grasslands and rocky substrate. They are regarded as opportunistic sit-and-wait ambush predators, consuming prey types from upwards of 18 taxonomic groups (Thomas *et al.*, 2017; do Couto *et al.*, 2018; Ceron *et al.*, 2018). Prey can include toads, lizards, spiders, scorpions, centipedes, millipedes, ants, termites, beetles, and crabs (França *et al.*, 2004; do Couto *et al.*, 2018; Ceron *et al.*, 2018; Augusto Pena Correa *et al.*, 2020). The feeding on large tarantulas by *Leptodactylus* are reported in Brazil and Ecuador (Duellman, 1978; do Couto *et al.*, 2018) but to date tarantulas are not documented in the diet of *Leptodactylus* in the Peruvian Amazon. We report here, a predation even by a young *Leptodactylus* frog on a tarantula of almost equal size, suggesting

that large tarantulas are part of the diet of *Leptodactylus* species in Peruvian populations.

At 2222 h on the night of 17 July 2018 in the Pacaya-Samiria National Reserve, Peru (-4.853850, -74.366700), during field work, one of the authors (EK) observed a juvenile *Leptodactylus* species (SVL ca. 4.5 cm) subduing a comparably sizable tarantula (body size ca. 6 cm) (Figure. 1) on the forest floor. The juvenile frog engaged the tarantula from behind, and successfully consumed the opisthosoma (Figure. 1). The tarantula struggled for approx. 30 seconds before remaining still, as the frog continued to consume the tarantula whole.

*Leptodactylus* typically consume manageable sized prey, but some reports suggest that they occasionally consume exceptionally large and potentially dangerous prey in comparison to their size (do Couto *et al.*, 2018). Due to time constraints, and so as not to disturb the interaction, the frog was left to continue engulfing its meal



**Figure 1.** *Leptodactylus* species consuming a large tarantula in the Peruvian Amazon (photo taken by Ellen King).

undisturbed, and therefore a formal identification to species level was not obtained. Consequently, some limitations to this observation are that the frog could only be identified to the genus level. Although it is confirmed that large tarantulas are successfully consumed by *Leptodactylus* (do Couto *et al.*, 2018), in a previous observation, an attempt to consume a large tarantula resulted in the frog being envenomed after one fang penetrated the frog's upper lip (Augusto Pena Correa *et al.*, 2020). However, in this observation, the positioning of the frog and the lack of struggle from the prey after

30 secs suggest it is likely the frog successfully consumed the tarantula without retaliation.

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