



# Predation on *Leptodactylus griseigularis* (Henle 1981) (Anura: Leptodactylidae) by *Ancylometes* sp. (Bertkau 1880) (Araneae: Ctenidae) in a Community-conserved Forest in Peru

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Frogs are important components of many food webs in terrestrial and freshwater ecosystems, in which they are prey of many invertebrates and vertebrates (Duellman and Trueb 1994; Cortéz-Gómez et al. 2015; Moreno-Rueda and Comas 2023). Recent research has shown that frogs in all stages of life often are the most common vertebrate prey of some arthropods (e.g., Valdez 2020; Moreno-Rueda and Comas 2023), with spiders in particular preying on frogs in Central America (e.g., Cotoras and Vallejos 2021; Cubas-Rodríguez et al. 2023), South America (Menin et al. 2005; Maffei et al. 2010; Salas et al. 2019; Prémel and Torres 2021; see also Table 1), Africa (e.g., Babangenge et al. 2019), and Asia (e.g., Jithin et al. 2021). Large ctenid spiders are among the most frequently reported predators of frogs (e.g., de Oliveira Meneses et al. 2021). We herein report predation of a juvenile *Leptodactylus griseigularis* by a juvenile female ctenid spider in the genus *Ancylometes* in a *Mauritia* palm swamp (aguajal) in the San Martín region of Peru that was observed during an inventory of reptiles and amphibians conducted in the Conservation Concession “Áreas Inundables del Bajo Huallaga”- El Porvenir-Pelejo, San Martín, Peru. This community-managed area (see Shanee et al. 2015, 2020 for overviews) conserves an undisturbed primary forest, which com-

prises forests and fragile ecosystems of aguajal palm swamps (MINAGRI 2019) (Fig. 1).

At 2237 h on 9 November 2022, we observed a juvenile female *Ancylometes* sp. preying on a juvenile *L. griseigularis* (SVL = 2.05 cm; mass = 0.5 ± 0.1 g) (Fig. 2) in leaf litter, approximately two meters from a pond in the aguajal.



**Figure 1.** Habitat in the *Mauritia* palm swamp (aguajal) in the Conservation Concession “Áreas Inundables del Bajo Huallaga”- El Porvenir-Pelejo, San Martín, Perú.

**Table 1.** A summary of predation by spiders (Araneae) on frogs of the genus *Leptodactylus* (Anura: Leptodactylidae) in South America.

Species (life stage)	Spider taxon	Country/Territory	Reference
<i>L. didymus</i> (—)	Ctenidae	Peru	von May et al. 2019
<i>L. fuscus</i> (adult)	<i>Ancylometes concolor</i>	Paraguay	Bueno-Villafañe et al. 2018
<i>L. griseigularis</i> (juv.)	<i>Ancylometes</i> sp.	Peru	<b>This study</b>
<i>L. latinasus</i> (egg)	<i>Lycosa pampeana</i>	Argentina	Villa et al. 1982
<i>L. marmoratus</i> (adult)	<i>Ctenus medius</i>	Brazil	Barbo et al. 2009
<i>L. validus</i> (adult)	<i>Ancylometes bogotensis</i>	Trinidad and Tobago	Auguste et al. 2018
<i>L. knudseni</i> (juv.)	<i>Theraphosa blondi</i>	French Guiana	Boistel and Pauwels 2002
<i>L. fragilis</i> (—)	<i>Lycosa</i> sp.	Venezuela	Espinoza-Pérnia and Infante-Rivero 2017

**Figure 2.** Predation of a juvenile *Leptodactylus griseigularis* (MUSM 41465) by a juvenile female ctenid spider *Ancylometes* sp. (MUSM-ENT 0518271) in an aguajal swamp in the Conservation Concession “Áreas Inundables del Bajo Huallaga,” Municipality of Pelejo-El Porvenir, San Martín, Peru. Photographs by Mathias Dezetter, Nature Conserv’Action.

jal (-6.14945, -75.81369; elev. 144 m asl). The spider had gripped the right hindlimb of the frog with its chelicerae and, after approximately one minute, the frog was completely paralyzed and we observed notable swelling in the bitten limb (Fig. 3). We captured both the spider and the frog. To identify the frog, we relied on descriptions in Heyer (1994) and de Sá et al. (2014). The spider was identified by Diana Silva Dávila following Höfer and Brescovit (2000) and Silva-Dávila (2003). Both specimens were deposited in the Museum of Natural History of the Universidad Nacional Mayor de San Marcos, Lima, Peru (*Leptodactylus griseigularis*: MUSM 41465; *Ancylometes* sp.: MUSM-ENT 0518271). To the best of our knowledge, this is the first documented report of *Ancylometes* sp. predation on *L. griseigularis*, and the first report of spider predation on a frog in San Martín, Peru.

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**Figure 3.** Dorsal, ventral, and lateral views of the *Leptodactylus griseigularis* (MUSM 41465) and the *Ancyloletes* sp. (MUSM-ENT 0518271) that killed it. Inset: The swollen part of the right hindlimb of the frog where it was bitten by the spider. Photographs by Mathias Dezetter, Nature Conserv'Action.

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