

Tailless Whip Scorpions (Paraphrynus laevifrons) Preying on Metamorphic Juvenile Gliding Leaf Frogs (Agalychnis spurrelli) in Costa Rica

Raby Nuñez Escalante and David Garro Acuña

Sierpe de Osa, Puntarenas, Costa Rica (sierpefrogs@gmail.com [corresponding author]; seika26@live.com)

Tany arthropods prey on vertebrates and play cru-Lcial roles in the structure and function of food webs (McCormick and Polis 1982). Whip scorpions (Class Arachnida, Order Amblypygi) comprise 125 species in five families and 19 genera, all of which occur in tropical and subtropical regions (Peretti 2002). Twelve species are known from Central America, four of them occur in Costa Rica (Viquez 2003). One species of tailless whip scorpion (Paraphrynus laevifrons) is the most abundant of these species, present throughout the country, and the only species on the Peninsula de Osa. It is a nocturnal sit-and-wait predator that takes a variety of prey, primarily invertebrates (Chapin and Hebets 2016) but also small vertebrates such as lizards, frogs, and even birds (Weygoldt 2000; Chapin and Hebets 2016).

On the nights of 28 and 29 October 2016, 70-80 days after the first explosive reproductive event of Gliding



Fig. 1. A tailless whip scorpion (Paraphrynus laevifrons) biting and immobilizing a metamorphic Gliding Leaf Frog (Agalychnis spurrelli) in Sierpe de Osa, Puntarenas, Costa Rica. Photograph by Raby Nuñez Escalante. 96

Leaf Frogs (*Agalychnis spurrelli*) in a lagoon in Sierpe de Osa, Puntarenas, Costa Rica (8°50'47.3816"N, 83°28'47.1943"W), many metamorphic juveniles were emerging from the water and climbing into nearby vegetation, where they remained for some days before slowly disappearing into the rainforest. At 2030 h, we encountered a tailless whip scorpion (*Paraphrynus laevifrons*) eating a juvenile Gliding Leaf Frog on a tree trunk (Fig. 1), the first of four such events that we witnessed. To the best of our knowledge, this is the first report of tailless whip scorpions preying on *Agalychnis spurrelli*.

Literature Cited

- Chapin, K.J. and E.A. Hebets. 2016. The behavioral ecology of amblypygids. *The Journal of Arachnology* 44: 1–15. https://doi.org/10.1636/V15-62.1.
- McCormick. S. and G.A. Polis. 1982. Arthropods that prey on vertebrates. *Biological Reviews* 57: 29–58. https://doi.org/10.1111/j.1469-185X.1982. tb00363.x.
- Peretti, A.V. 2002. Courtship and sperm transfer in the whip spider *Phrynus gervaisii* (Amblypygi, Phrynidae): A complement to Weygoldt's 1977 paper. *Journal of Arachnology* 30: 588–600. https://doi.org/10.1636/0161-8202(2002)030[0588:CASTIT]2.0.CO;2.
- Víquez, C. 2003. The whip spiders from Costa Rica (Amblypygi, Arachnida). Sklípkan 8(4): 124–130.
- Waygoldt, P. 2000. Whip Spiders (Chelicerata: Amblypygi). Their Biology, Morphology and Systematics. Apollo Books, Stenstrup, Denmark.