



# First Documented Case of a Common Rainfrog (*Craugastor fitzingeri*) Preying on a Velvet Worm (*Macroperipatus valerioi*) in Uvita, Puntarenas, Costa Rica

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The Common Rainfrog (*Craugastor fitzingeri*) is a nocturnally active terrestrial species widely distributed in Central America from southern Mexico to western Panama (Savage 2002). It thrives in various environments, including primary and secondary forests as well as human settlements, due to its adaptability and direct development, which bypasses the tadpole stage (Leenders 2016). Its diet consists primarily of small invertebrates such as insects, arachnids, and other soft-bodied prey (Guyer and Donnelly 2004).

Velvet worms (Onychophora) comprise a phylum of soft-bodied invertebrates with a lineage dating back to the Cambrian (Monge-Nájera 1995). They are closely related to arthropods and tardigrades and are recognized for their specialized hunting strategy, in which they capture prey by ejecting a sticky slime that immobilizes it (Read and Hughes 1987). In Costa Rica, velvet worms primarily inhabit humid forest ecosystems, typically residing in moist microhabitats such as leaf litter, rotting logs, and under bark (Morera-Brenes and Monge-Nájera 2010). Little is known about the natural history of *Macroperipatus valerioi* (Peripatidae) other than the type specimen was found under a fallen log in premontane rainforest near the Damitas River in Costa Rica (Morera-Brenes and León 1986).

Although reports of natural predators of velvet worms are scarce, known predators include a Wandering Spider (*Ctenus* sp.), Clay-colored Thrush (*Turdus grayi*), and snakes (Western Worm-eating Coralsnake, *Micrurus ortonii*; Slevin's Tropical Groundsnake, *Trimetopon slevini*; and Striped Glasstail, *Urotheca guenterii*) (Roze 1996; Campbell and Lamar 2004; Franco and Monge-Nájera 2016; Smokoska and Acosta-Chaves 2017; Vuolo Marques and Sazima 2021; Méndez Fallas and Solórzano 2024).

At 1956 h on 23 January, GCP observed a Common Rainfrog preying on a velvet worm (*Macroperipatus valerioi*) near a small waterfall on the grounds of Oxygen Jungle Villas in Uvita, Puntarenas, Costa Rica (9.1918373, -83.7255839) (Fig. 1). To the best of our knowledge, this is the first documented case of a frog preying on a velvet worm. This observation suggests opportunistic predation rather than active hunting, highlighting the need to better understand the ecological role of velvet worms and their predators.



**Figure 1.** A female Common Rainfrog (*Craugastor fitzingeri*) preying on a velvet worm (Onychophora) in Uvita, Puntarenas, Costa Rica. Photograph by Greivin Cabezas Pérez.

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Sustainable Tourism), they promote responsible tourism by protecting the surrounding rainforest and wildlife. Julián Monge-Nájera helped with the identification of the velvet worm.

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