



# Observations of Arthropods Preying on Amphibians and Reptiles in Sierpe de Osa, Costa Rica

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Predacious terrestrial arthropods that are abundant in tropical regions and are known to prey on amphibians and reptiles include spiders, scorpions, centipedes, and various insects (e.g., McCormick and Polis 1982; Corey 1988; Menin et al. 2005; Toledo 2005; Toledo et al. 2007; Wells 2007; von May 2009a; Cardoso et al. 2011; Biggi and Tomasinelli 2017). Herein we describe opportunistic observations of arthropods preying on herpetofauna at the same property in Sierpe de Osa, Costa Rica (8°50'47.3816"N, 83°28'47.1943"W).

A Trechaleid Fishing Spider (*Trechalea extensa*) was observed by DGA while feeding on a Fitzinger's Rainfrog (*Craugastor fitzingeri*) near a stream at 1950 h on 2 April 2019 (Fig. 1). RNE encountered a wandering spider (Ctenidae; probably *Ctenus* sp.) consuming a male Hourglass Treefrog (*Dendropsophus ebraccatus*) at 1943 h on 10 September 2016 (Fig. 2). At 2044 h on 10 December 2019, IPA found a wandering spider (*Ctenus* sp.) with a prey item that at first looked like a worm but which, after close inspection, we determined to be a Pacific Worm Salamander (*Oedipina pacificensis*) (Fig. 3); this was the second time we have observed a *Ctenus* sp. feeding on a Pacific Worm Salamander. Wandering spiders typically forage in and on the leaf litter and their diet consists predominantly of invertebrates, but they occasionally prey on small lizards and frogs; to the best of our knowledge, this is the first documented report of a *Ctenus* sp. preying on a caudate amphibian.

At 1819 h on 30 October 2008, AAA and RNE observed a Costa Rican Wandering Spider (*Cupiennius coccineus*) on a non-native Red Ginger (*Alpinia purpurata*) leaf preying on a small Many-scaled Anole (*Anolis* [= *Norops*] *polylepis*) (Fig. 4). Next to a trail near the stream, PRD found a Flame-bellied Orb Weaver (*Eriophora fuliginea*) feeding on a Many-scaled Anole (*Anolis* [= *Norops*] *polylepis*) at 1807 h on 30 March 2021 (Fig. 5).

At 1855 h on 28 April 2019, while leading a herpetological tour, RNE found a young female Cone-headed Katydid (*Copiphora cultricornis*) preying on a Slender Anole (*Anolis* [= *Norops*] *limifrons*) while the katydid was hanging from the edge of a Red Ginger leaf (Fig. 6). Katydid are highly diverse, widely distributed and locally and seasonally abundant in Costa Rica, where the genus *Copiphora* is represented by six species (Naskrecki 2017). These katydids have sharp



**Fig. 1.** A Trechaleid Fishing Spider (*Trechalea extensa*) preying on a Fitzinger's Rainfrog (*Craugastor fitzingeri*) near a stream.





**Fig. 2.** This wandering spider (*Ctenus* sp.) had captured a male Hourglass Treefrog (*Dendrosophus ebraccatus*).



**Fig. 3.** A wandering spider (*Ctenus* sp.) with a recently caught Pacific Worm Salamander (*Oedipina pacificensis*).



**Fig. 4.** This Costa Rican Wandering Spider (*Cupiennius coccineus*) had ambushed a small Many-scaled Anole (*Anolis* [= *Norops*] *polylepis*).



and powerful mandibles and a varied diet that includes seeds, fruits, caterpillars, snails, insects (including other katydids), and even small vertebrates (Naskrecki 2017). However,

records of orthopterans preying on lizards in natural conditions are rare and have been poorly documented (Yong 2017).



Fig. 5. A male Many-scaled Anole (*Anolis* [= *Norops*] *polylepis*) partly eaten by a Flame-bellied Orb Weaver (*Eriophora fuliginea*).



Fig. 6. This predacious Cone-headed Katydid (*Copiphora cultricornis*) had captured and was beginning to eat a Slender Anole (*Anolis* [= *Norops*] *limifrons*).

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