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Cannibalism in whip spiders (Arachnida: Amblypygi)

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Abstract. An adult female of *Phrynus barbadensis* (Pocock, 1893) (Phrynidae) was observed in a locality of the Caribbean region of Colombia while it was predating on a newly molted female of the same species. This is the first case of cannibalism recorded for amblypygids in the field. It is also included a list of the known predators of whip spiders.
Key words: Phrynidae, *Phrynus*, ecology, natural history, Colombia.

Canibalismo en Amblypygi (Arachnida)
Resumen: Una hembra adulta de *Phrynus barbadensis* (Pocock, 1893) (Phrynidae) fue observada en una localidad de la región Caribe de Colombia mientras devoraba a una hembra recién mudada de la misma especie. Este constituye el primer registro de canibalismo en Amblypygi en condiciones naturales. Se incluye una lista de los depredadores conocidos de amblipigios.
Palabras clave: Phrynidae, *Phrynus*, ecología, historia natural, Colombia.

Despite the solitary and predaceous habits of the whip spiders, intra-guild predation and cannibalism seems to be rare among them (Rayor & Taylor, 2006; Santer & Hebets, 2009). Armas & Ramírez (1989) recorded predation of *Phrynus levii*? (later described as *Phrynus hispaniolae* Armas & Pérez, 2001) by the larger whip spider *Phrynus longipes* (Pocock, 1893), but cannibalism had not been observed in the field in this order of arachnids.

On December 11, 2014, at the 18:33 hr, was observed an adult female of *Phrynus barbadensis* (Pocock, 1893) (total length 15.6 mm, carapace median length 8.65 mm) that was predating on a newly molted female of the same species (total length 13.8 mm, carapace median length 8.2 mm) (Fig. 1 A-C, Table I). In these moments, the cannibal female eats part of the anterior area of the carapace of its prey (Fig. 1 C). This case occurred under a rotting log, where another adult and an immature of the same species were also found.

The place is a heterogeneous agricultural area of the helobiome Magdalena-Caribbean, located in the San Cristobal fish station (10°24'17.525" N - 75°03'51.660 W; elevation 7 m), municipality of Repelón, Atlántico department, Colombia, where this amblypygid species is an usual inhabitant.

It seems obvious that this case of cannibalism was mainly due to the undefended condition of the newly molted specimen. Nonetheless, cannibalism and intra-guild predation in amblypygids might be a more frequent phenomenon than presently known, because, as stated by several authors (Weygoldt, 2000; Rayor & Taylor, 2006; Santer & Hebets, 2009; Armas, 2011), data on the natural diet, behavior and ecology of the whip spiders are yet scarce.

The two voucher specimens are deposited in Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá.

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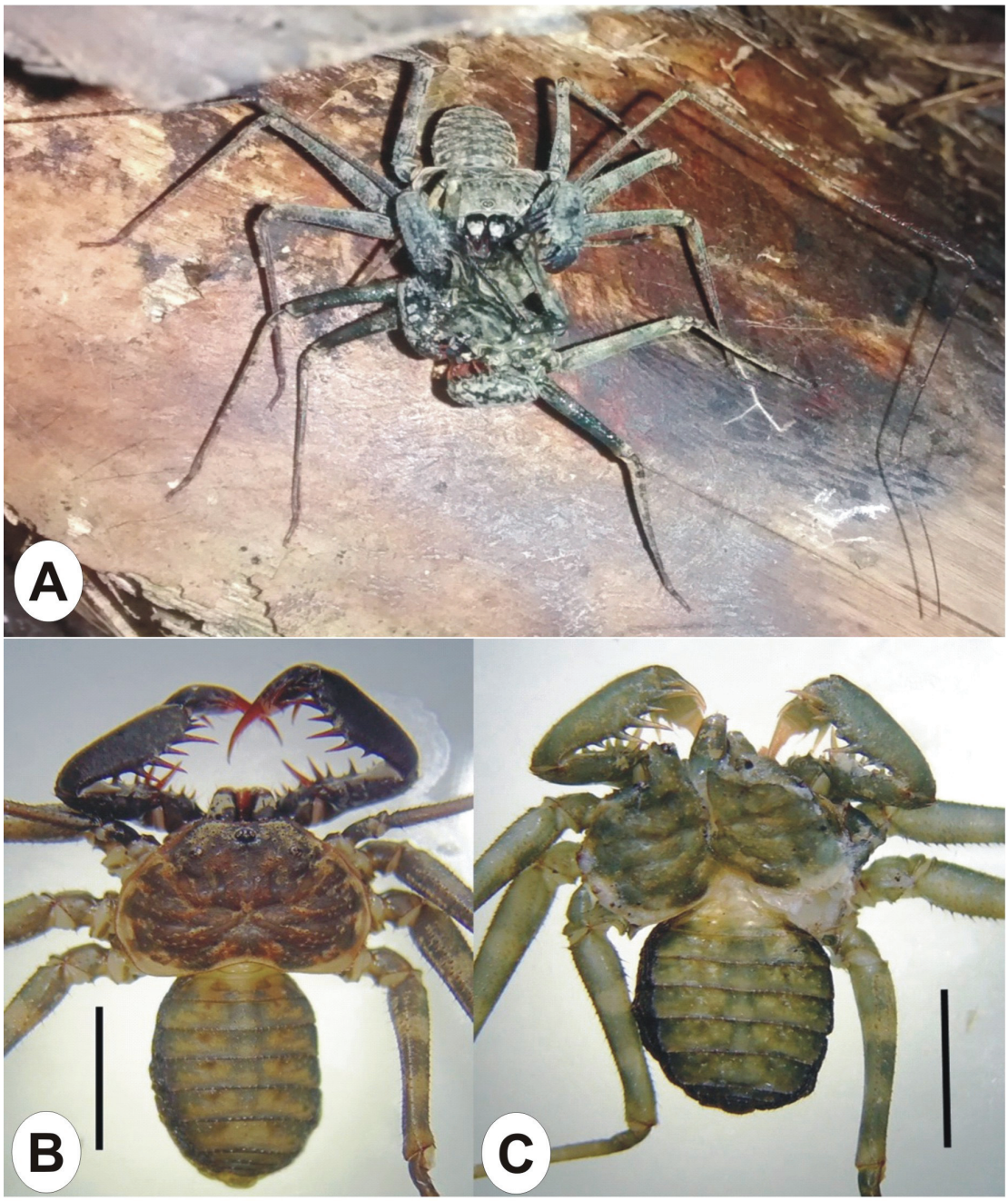


Fig. 1. A, Female of *Phrynus barbadensis* predating on a newly molted conspecific female in a locality of the Caribbean region of Colombia; **B**, cannibal female; **C**, cannibalized female showing the broken carapace. Scale bar = 5.0 mm.

Table I. Predators of amblypygids (modified from Armas *et al*., 2013).

Amblypygids	Predators	References
Paraphrynus robustus (Franganillo, 1930) (Phrynidae)	*Solenodon cubanus* Peters, 1861 (Mammalia: Soricomorpha)	Armas (1987)
Phrynus barbadensis Pocock, 1893 (Phrynidae)	*Phrynus barbadensis*	This paper
Phrynus damonidaensis Quintero, 1981	*Alayotityus sierramaestrae* Armas, 1973 (Scorpiones: Buthidae)	Armas *et al*. (2013)
Phrynus hispaniolae Armas & Pérez, 2001	*Phrynus longipes* (Pocock, 1893)	Armas & Ramírez (1989)
Phrynus pinarensis Franganillo, 1926	*Rhopalurus junceus* (Herbst, 1800) (Scorpiones: Buthidae)	Teruel & Toledo (2014)
Phrynus whitei Gervais, 1842	*Centruroides edwardsii* (Gervais, 1843) [cited as *C. margaritatus* (Gervais, 1841)] (Scorpiones: Buthidae)	Armas (1995)
Stygophrynus dammermani Roewer, 1928 (Charontidae)	*Varanus salvator* (Laurenti, 1768) (Reptilia: Varanidae)	Dammerman (1948)