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Yet another case of scorpions preying upon amblypygids in nature (Scorpiones, Amblypygi)

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Abstract: The present note documents the finding of a juvenile *Rhopalurus junceus* (Herbst, 1800) feeding on an adult of *Phrynus pinarensis* Franganillo, 1926. This represents the third known case of scorpions acting as a natural predators of amblypygids.
Key words: Scorpiones, *Rhopalurus*, Amblypygi, *Phrynus*, predation, Cuba.

Otro caso más de escorpiones depredando amblipigios en la naturaleza (Scorpiones, Amblypygi)
Resumen: La presente nota registra el hallazgo de un juvenil de *Rhopalurus junceus* (Herbst, 1800) alimentándose de un adulto de *Phrynus pinarensis* Franganillo, 1926. Este representa el tercer caso conocido de escorpiones actuando como depredadores naturales de amblipigios.
Palabras clave: Scorpiones, *Rhopalurus*, Amblypygi, *Phrynus*, depredación, Cuba.

Both scorpions and amblypygids are widespread across tropical regions, use to be common almost everywhere (in fact, it is not rare at all to find them both sharing the same shelter), and also are predatory arachnids that feed upon essentially any other animal they can subdue (cannibalism included). Despite this, trophic interactions between them have been documented in the literature only twice.

The first case was observed in western Nicaragua by Armas (1995): one juvenile scorpion identified therein as *Centruroides margaritatus* (Gervais, 1841), was found under rock while consuming a specimen of *Phrynus whitei* Gervais, 1842; sex and development instar of the amblypygid were not originally declared, and later Armas *et al.* (2013b) corrected the identity of the scorpion to *Centruroides edwardsii* (Gervais, 1843). The second case was reported in southeastern Cuba by Armas *et al.* (2013a): one juvenile *Alayotityus sierramaestrae* Armas, 1973 was found under rock while eating an immature *Phrynus damonidaensis* Quintero, 1981.

During a short stay at Dos Hermanas campsite in Viñales Valley (Pinar del Río province, western Cuba), on April 13th of 2013, one of us (AT) detected yet another similar case in the steep-sloped, residual karstic limestone hill locally known as "Mogote del Valle": a small scorpion was sitting on a horizontal projection of the vertical limestone wall, while firmly grabbing with its pedipalps and eating a somewhat larger amblypygid (fig. 1). The observation was made around 06:30 hrs. (still dark, just before dawn) and the scorpion most likely captured its prey shortly before, because only the tip of the soft abdomen had already been ingested. The animals were not collected, but a series of high-resolution color photographs was taken *ad hoc* with a Nikon D40 digital camera equipped with a 50 mm macro lens. Even though we firmly recommend that in such cases the specimens must be collected and preserved as vouchers, the photographs perfectly show all morphological details needed for a precise identification: the scorpion is a fourth instar juvenile male *Rhopalurus junceus* (Herbst, 1800) and the amblypygid is a small adult female *Phrynus pinarensis* Franganillo, 1926.

Only three cases are too few for further conclusions, but it is noteworthy to point out here that all of them involved scorpions of the family Buthidae and amblypygids of the genus *Phrynus* Lamarck, 1801. For the two cases detected in Cuba, we discard the possibility that it could merely reflect a highest abundance of the implied taxa: the scorpion recorded by Armas *et al.* (2013a) and the two species observed herein are precisely among the most scarce and rarely found in each locality, while other scorpions and amblypygids that live in the same microhabitats are by far more common (R. Teruel, pers. obs.). Another interesting observation from these same two cases is that the scorpion venom seems to be particularly active against those tailless whip spider, because predation took place successfully despite two important setbacks: the amblypygids are heavily armed with spinose raptorial pedipalps and both killed individuals were actually larger than the scorpions (taking into account not total length, but body span and mass).

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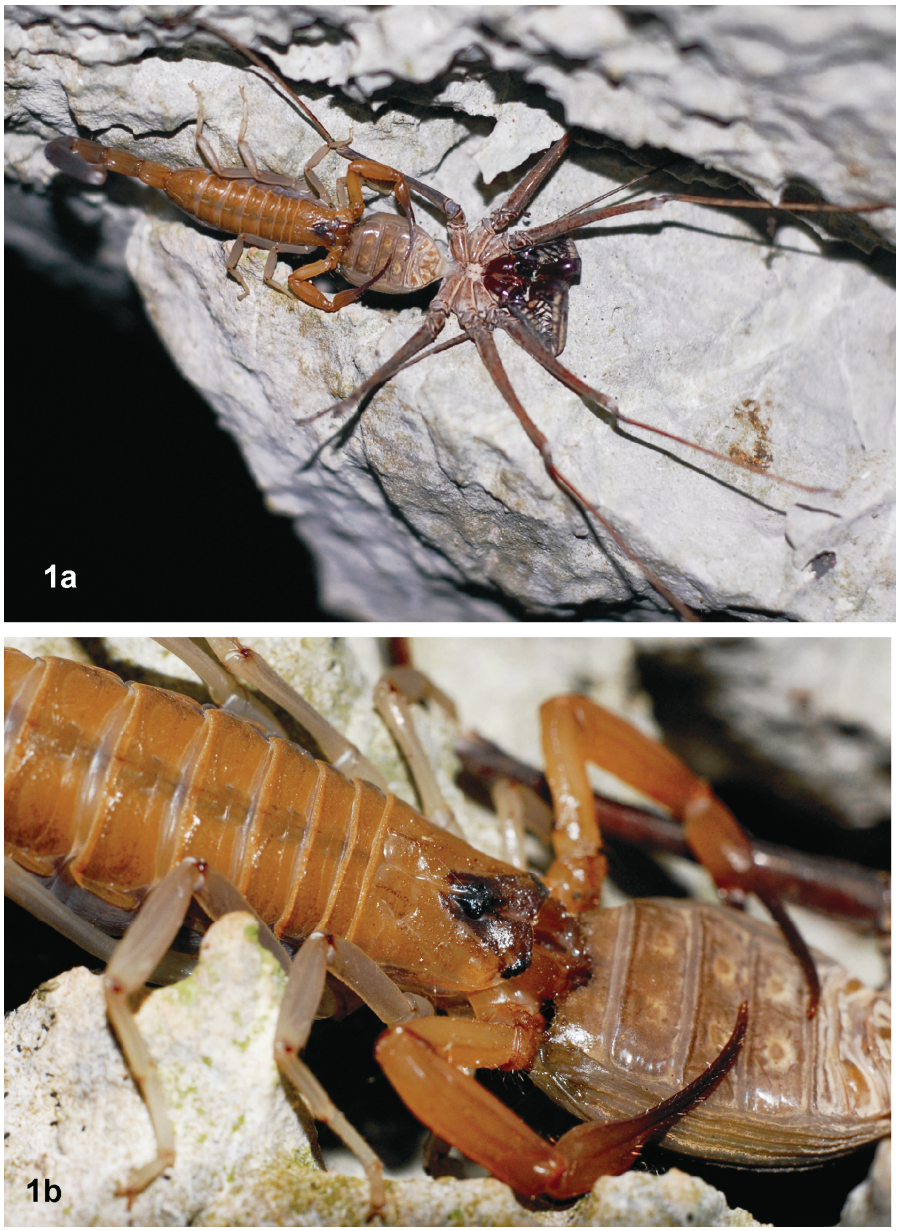


Fig. 1. Two photographs of the predation case recorded herein.