

## A scorpion preying upon a solifuge in Mexico (Arachnida: Scorpiones, Solifugae)

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**Abstract:** The present note documents the finding of a juvenile scorpion *Centruroides balsasensis* Ponce-Saavedra & Francke, 2004 (Buthidae), that was feeding upon an adult male solifuge (undetermined species of the family Ammotrechidae Roewer, 1934). Two detailed photos are included to illustrate the case recorded herein.

**Key words:** Scorpiones, *Centruroides*, Solifugae, Ammotrechidae, predation, Mexico.

### Escorpión depredando a un solifugo en México (Arachnida: Scorpiones, Solifugae).

**Resumen:** La presente nota documenta el hallazgo de un escorpión juvenil *Centruroides balsasensis* Ponce-Saavedra & Francke, 2004 (Buthidae), mientras devoraba un solifugo macho adulto (especie indeterminada de Ammotrechidae Roewer, 1934). Se incluyen dos fotos detalladas que ilustran el caso aquí reportado.

**Palabras clave:** Scorpiones, *Centruroides*, Solifugae, Ammotrechidae, depredación, México.

Scorpions and solifuges are highly diverse, widespread, and locally and/or seasonally abundant in the arid zones of Mexico. Both are predatory arachnids that feed upon essentially any other animal they can subdue (cannibalism included) and each one can be either the hunter or be prey of the other. This mutual trophic relationship has been widely known for decades (e.g., photos and anecdotic descriptions of such events are regularly uploaded to many websites every year), but formal papers presenting actual data have appeared only sporadically, e.g., Hingston (1925), Hewitt (1934), Cloudsley-Thompson (1961), and Polis & McCormick (1986). As most relevant records, McCormick & Polis (1990) listed "Solifuges" among prey items of four scorpion species (including one *Centruroides*) and presented a photo of a solifuge of the family Eremobatidae Roewer, 1934 being eaten by the Vaejovidae scorpion *Smeringurus mesaensis* (Stahnke, 1957), while Polis (1993) stated that solifuges represent up to 14% of the natural diet of *S. mesaensis* itself, and Punzo (1998) recorded that after capturing a prey, solifuges immediately shelter under vegetation to avoid detection by other predators, including scorpions.

During a nocturnal UV-sampling at the environs of Nocupétaro town (in homonymous municipality, southern Michoacán State, Mexico), on January 28<sup>th</sup> of 2015, the present author spotted a small scorpion hanging in "belly-up" position off a barb-wire in a fence, while eating a small solifuge (figs. 1–2). The scorpion was a juvenile female *Centruroides balsasensis* Ponce-Saavedra & Francke, 2004, and the solifuge could be identified only as a member of the family Ammotrechidae Roewer, 1934, because all body parts needed for a more accurate identification (chelicerae, carapace, pedipalps, and legs I–III) had already been ingested when it was found.

The finding was made at 23:28 hrs Standard East Time and the scorpion (total length 27 mm) was about twice larger than the solifuge, thus, the capture must have occurred in early evening. As soon as spotted, high-resolution color photos were taken with a Nikon Coolpix S8100 digital camera and both specimens were preserved in ethanol 85% as vouchers, later deposited in the personal collection of the author. The site is located in the northern watershed of the arid Balsas Basin at an altitude of 660 m a.s.l., and the vegetation is secondary grassland with sparse *Acacia* shrubs for grazing,

but originally it was tropical caducifolious forest. During the same sampling, other three juveniles and an adult female *C. balsasensis* were observed preying upon small undetermined crickets (Orthoptera: Gryllidae Bolívar, 1878).

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