



## NOTA BREVE:

**On two enigmatic organisms associated with some Antillean and Mexican scorpions (Arachnida: Scorpiones)**

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**ON TWO ENIGMATIC ORGANISMS ASSOCIATED WITH SOME ANTILLEAN AND MEXICAN SCORPIONS (ARACHNIDA: SCORPIONES)**

Luis F. de Armas

**Abstract**

Larvae supposedly belonging to perilampid wasps (Hymenoptera) were found on several West Indian scorpions. On the other hand, a small unidentified egg-like organism was found in both West Indian and Mexican scorpions.

**Key words:** Scorpiones, Buthidae, Vaejovidae, Perilampidae, ecology, parasites, West Indies.

**Acerca de dos organismos enigmáticos asociados con algunos escorpiones antillanos y mexicanos (Arachnida: Scorpiones)**

**Resumen**

Se menciona el hallazgo de larvas, que supuestamente pertenecen a avispas perilápidas (Hymenoptera), asociadas a varias especies de escorpiones de las Antillas. También se registra la presencia de un pequeño organismo indeterminado, en forma de huevo, sobre algunos escorpiones antillanos y mexicanos.

**Palabras clave:** Scorpiones, Buthidae, Vaejovidae, Perilampidae, ecología, parásitos, Antillas.

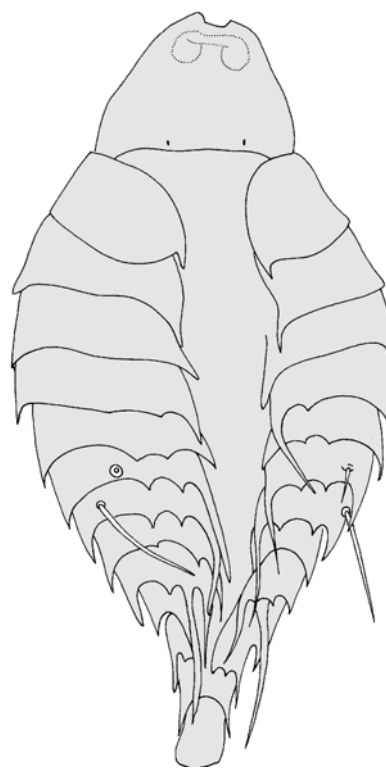
Armas & Cruz (1984) recorded supposedly foretic larvae of Perilampidae (Insecta: Hymenoptera) on some West Indian scorpions of the genera *Ananteris* Thorell, 1891, *Centruroides* Marx, 1890, and *Rhopalurus* Thorell, 1876. Similar larvae were latter found on Dominican scorpions of the genera *Microtityus* Kjellesvig-Waering, 1966, and *Rhopalurus* (Armas & Marcano Fondeur, 1987, 1992).

Those larvae (Fig. 1) are always found attached by its mouthparts to the membranous tissues of the ventral surface of the scorpion trunk (prosoma + mesosoma), especially on pectines. According with Armas (1984) and additional personal observations, the number of these organisms associate with one scorpion varies between 2 and 30, being the incidence very low. Nevertheless, there is not proof of either its parasitic or foretic condition. On the other hand, those planidium-like larvae were identified as perilampid larvae by comparison with a text-figure only (Armas & Cruz, 1984). So, new data are necessary for determining both its correct identity and interspecific relation with scorpions.

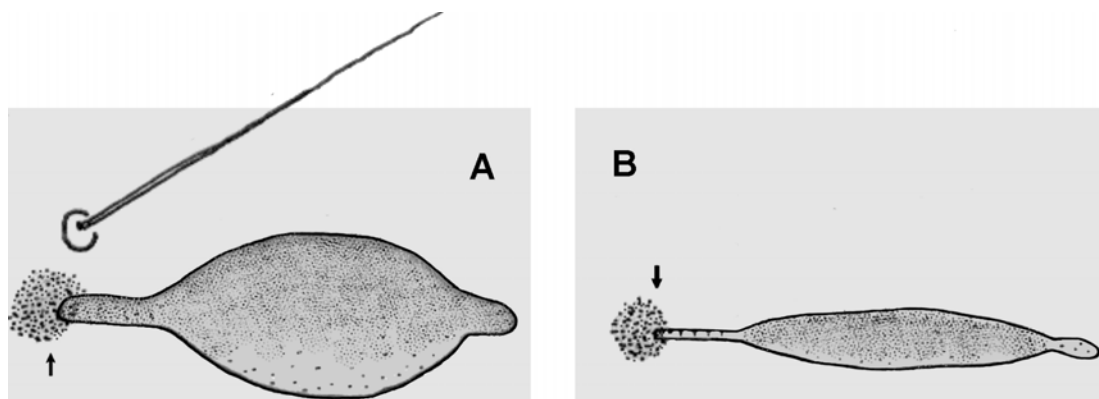
A complete list of the scorpion species recorded as host of those supposedly perilampid larvae is given in Table I. For data on its precise locality see Armas (1984).

Other enigmatic organism (Fig. 2A-B) has been found solidly attached by one of its extremes to both setae and cuticle of some scorpions. It is very small (0.15 mm length, 0.03 mm width), pale brown-yellowish, and dorsoventrally very flattened. In some respect it resembles an insect egg, but its real origin has not been determined.

This rare organism has been found on the Cuban buthid *Tityopsis inexpectata* (Moreno, 1940), from Sierra del Rosario, Pinar



**Fig. 1.** Planidium-like larva supposedly belonging to Perilampidae (Hymenoptera), found on pectines of the Cuban buthid scorpion *Centruroides anchorellus*.



**Fig.2.** Unidentified egg-like organism associated with the Cuban buthid scorpion *Tityopsis inexpectata*. **A:** dorsal aspect. **B:** lateral aspect. Arrow indicates the fixing point.

**Table I**

**West Indian buthid scorpions associated with larvae supposedly belonging to perilampid wasps (Hymenoptera)**

Scorpion species	Country	Reference
<i>Ananteris cussinii</i> Borelli, 1910	Trinidad (Lesser Antilles)	Armas & Cruz, 1984
<i>Centruroides alayoni</i> Armas, 1999	Dominican Republic	This work
<i>Centruroides anchorellus</i> Armas, 1976	Cuba	Armas & Cruz, 1984
<i>Centruroides barbudensis</i> (Pocock, 1898)	St. Martin (Lesser Antilles)	Armas & Cruz, 1984
<i>Centruroides guanensis</i> Franganillo, 1930	Cuba	Armas & Cruz, 1984
<i>Microtityus consuelo</i> Armas & Marcano Fondeur, 1987	Dominican Republic	Armas & Marcano Fondeur, 1992
<i>Microtityus paucidentatus</i> Armas & Marcano Fondeur, 1992	Dominican Republic	Armas & Marcano Fondeur, 1992
<i>Rhopalurus junceus</i> (Herbst, 1800)	Cuba	Armas & Cruz, 1984
<i>Rhopalurus princeps</i> (Karsch, 1879)	Dominican Republic	Armas & Marcano Fondeur, 1987

del Rio province, and one female paratype of the Mexican vaejovid *Vaejovis acapulco* Armas & Martín-Frías, 2001, from Acapulco, Guerrero. In both scorpion species the incidence of this organism is very low, too.

Samples of those two enigmatic organisms are available for who should be interested in its study.

### Acknowledgement

Dr. Jorge de la Cruz kindly does the drawing of the "perilampid" larvae on 1989.

### Bibliography

- ARMAS, L. F. DE & J. DE LA CRUZ 1984. Fosis de insectos (Hymenoptera: Perilampidae) en escorpiones (Arachnida: Scorpiones). *Misc. Zool.* (La Habana), **23**: 3.
- ARMAS, L. F. DE & E. J. MARCANO FONDEUR 1987. Nuevos escorpiones (Arachnida: Scorpiones) de República Dominicana. *Poeyana*, **256**: 1-24.
- ARMAS, L. F. DE & E. J. MARCANO FONDEUR 1992. Nuevos alacranes de República Dominicana (Arachnida: Scorpiones). *Poeyana*, **420**: 1-36.