

## Description of the pupae of two *Toxophora* species from Brazil (Diptera, Bombyliidae, Toxophorinae, Toxophorini)

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### Abstract

The pupae of *Toxophora leucon* Séguy and *T. zikani* (d'Andretta & Carrera) are described and illustrated for the first time. A brief discussion on the presence of cephalic spines on *Toxophora* pupae is also presented. This marks the first record of *Toxophora leucon* in Brazil, previously known only from Argentina, Bolivia, and Paraguay.

**Keywords:** Pupae; *Toxophora*; *T. leucon*; *T. zikani*; Bombyliidae; Diptera

### Introduction

A limited amount of information on the immature stages of Bombyliidae is available in the literature. As was stated by Du Merle (1975), most bee flies with known immature forms were reared accidentally during the breeding of their hosts, as they are parasitoids of immature holometabolous insects or predators of Orthoptera eggs (Yeates & Greathead, 1997). Besides this biological aspect of the life cycle of the bee flies, the few observed records of the relationship of the immatures to their hosts, shows their economic importance, as they act as natural enemies of major pests, such as grasshoppers, caterpillars, tsetse in addition to those immatures that develop in wasps and bee nests (Evenhuis & Greathead, 1999).

Hull (1973) synthesized the knowledge at that time regarding Bombyliidae systematics and presented a monograph revising all genera of the family. Hull presented a key to Bombyliidae subfamilies with known pupae. He stated that one important character in distinguishing bee fly pupae from other Diptera families lies in the presence of strong, chiti-