

The first record of *Notocyphus tyrannicus* Smith, (Hymenoptera: Pompilidae) as parasitoid of *Acanthoscurria* Ausserer, 1871 (Teraphosidae: Teraphosinae)

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Notocyphus Smith, 1855 is a diverse genus of Pompilidae represented by around 49 species and subspecies in the New World, and like most other pompilids, species of this genus are parasitoid of spiders (Wasbauer, 1995). Biological studies on *Notocyphus* have recorded species of Theraphosidae as its hosts (Williams, 1928; Lourenço, 1979; Minch, 1979; Simons, 1989; Sofia et al., 2011). Theraphosidae is one of 15 families of Mygalomorphae, including around 975 species in the world, and 179 in Brazil (Platnick, 2015). Herein, a new host of *N. tyrannicus* Smith, 1855 is presented, aiming to contribute to the biological knowledge of this parasitoid.

A juvenile spider of the genus cf. *Acanthoscurria* was collected in the wild, in Abaíra municipality, State of Bahia, Brazil (13°17'15"S 41°50'48"W), on January 13th of 2014, and it was carried to the Subterranean Studies Laboratory, Department of Ecology and Evolutionary Biology at UFSCAR. The spider was kept alive with food and water at 23°C. Twelve days after the specimen was

captured a larva was observed stuck on spider's abdomen (Figure 1). The larva ate the spider ending it on January 31st of 2014, when it entered the pupal stage, which lasted 46 days. A female of *N. tyrannicus* emerged on March 18th of 2014.

Williams (1928) recorded a female of *N. tyrannicus* hunting an arboreal theraphosid spider, probably of the genus *Tapinauchenius* Ausserer, 1871. Species of *Acanthoscurria* are nocturnal and live in tubular burrows under rocks, fallen trunks or in ravines close to the ground level, and sometimes, mainly in the reproductive season, they can be found during the day wandering outside their burrows (Gonzalez-Filho et al., 2012; Paula et al., 2014).

Based on the Williams' (1928) study, Evans (1953) classified species *Notocyphus* with the ethological sequence: *Venari*, *Pungere*, *Ovum*, *Claudere* (VPOC = hunting, paralysis, oviposition and nest closing). However, no study has recorded species of *Notocyphus* closing its host in nest, indicating that species of this genus present the



Figure 1. Specimen of an undetermined species of *Acanthoscurria* Ausserer, 1871 (Teraphosidae: Teraphosinae) with a larva of *Notocyphus tyrannicus* Smith, 1855 (Hymenoptera: Pompilidae) stuck on the spider's abdomen.

ethological sequence: hunting, paralysis and oviposition (VPO = *Venari*, *Pungere*, *Ovum*).

In conclusion this study expanded the knowledge on the host of *Notocyphus* and the parasitoids of species of the genus cf. *Acanthoscurria*. In addition, it shows that the biological knowledge on *Notocyphus* is still incomplete and more detailed studies could provide a better understanding on the natural history of this genus and its hosts.

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