

SCIENTIFIC COMMUNICATION

FIRST RECORD OF *NEOSILBA* (DIPTERA: LONCHAEIDAE) ON *JATROPHA CURCAS* L. IN BRAZIL

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ABSTRACT

Neosilba spp. is firstly reported in physic nut fruits (*Jatropha curcas*), in Rio Largo, State of Alagoas, Brazil. A total of 438 specimens were found on 1,000 fruits between May and July 2010. Five species were recorded in the State of Alagoas: *Neosilba zadolicha* McAlpine & Steyskal 1982, *Neosilba glaberrima* (Wiedemann, 1830), *Neosilba certa* (Walker, 1850), *Neosilba pendula* (Bezzi) and *Neosilba bella* Strikis & Prado 2008. This is the first record of *J. curcas* as host plant of *Neosilba* in Brazil.

KEY WORDS: New host, physic nut, Tephritoidea.

RESUMO

PRIMEIRO REGISTRO DE *NEOSILBA* (DIPTERA: LONCHAEIDAE) EM *JATROPHA CURCAS* L. NO BRASIL. Relata-se pela primeira vez a ocorrência de *Neosilba* (Diptera: Lonchaeidae) em frutos de pinhão manso (*Jatropha curcas*) no Município de Rio Largo, AL, Brasil. O total de 438 exemplares foi obtido de 1.000 frutos entre os meses de maio a julho de 2010. Cinco espécies foram registradas: *Neosilba zadolicha* McAlpine & Steyskal, 1982 *Neosilba glaberrima* (Wiedemann, 1830), *Neosilba certa* (Walker, 1850), *Neosilba pendula* (Bezzi) e *Neosilba bella* Strikis & Prado, 2008. Este é o primeiro registro de *J. curcas* como planta hospedeira de *Neosilba* no Brasil.

PALAVRAS-CHAVE: Novo hospedeiro, pinhão-manso, Tephritoidea.

Lonchaeidae are known as important pests of fruit trees cultivated in Americas. They are generally considered as secondary invader species as they attack fruits which were previously infested by Tephritidae (FEHN 1981; UCHÔA-FERNANDES *et al.*, 2002; RAGA *et al.*, 2004; BITTENCOURT *et al.*, 2006). Currently, it is known that they can also be primary invader insects as they inflict direct damage on fruits and they can even be pests of some plant species reaching high infestation rates (ARAÚJO; ZUCCHI 2002; SANTOS *et al.*, 2004).

Thus, this study aimed to assess natural infestation by frugivorous flies in physic nut (*Jatropha curcas* L.) (Euphorbiaceae). For that, 1,000 fruits (11.27 kg) were collected from plants of experimental field at Centro de Ciências Agrárias da Universidade Federal de Alagoas, AL (12°40' S, 39°06' W), during frutification season which comprised the period between May and July 2010. Ripe fruits were transported to the Entomology Laboratory then weighed and deposited in trays containing autoclaved sand and covered by *voile* fabric. Puparia were placed on pots containing

sand and closed with fabric for their emergence. Infestation rate was estimated based on the mean number of puparia/kg of fruit and puparia/fruit.

After emergence from the pupas, it was obtained: 45 *Neosilba* spp. females, and they were identified as the following species: *Neosilba zadolicha* McAlpine & Steyskal (72), *Neosilba glaberrima* (Wiedemann) (111), *Neosilba certa* (Walker) (22), *Neosilba pendula* (Bezzi) (6) and *Neosilba bella* Strikis & Prado, 2008.

Infestation rates were 53 puparia/kg of fruit and 0,6 puparia/fruit. Although, the genus *Neosilba* has been considered as fruit secondary invaders by some authors, this work revealed that it is a primary exclusively association because *Neosilba* larva represented the only Tephritoidea species that were infesting *J. curcas* fruits.

Although, the genus *Neosilba* was the only obtained, there was a diversity of species and considerable level of infestation. In regions of Mossoró and Assu, Rio Grande do Norte, eight species of fruit were infested by *Neosilba*, however, the only species found was *N. pendula*, reaching the highest rate of

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infestation in fruits juá (*Ziziphus joazeiro*-Rhamnaceae) with 21,1 puparia/kg fruit (ARAÚJO, 2002). This ratio shows the ability of various species of this genus to infect a single host.

This is the first record of *J. curcas* as the host plant of *Neosilba* in Brazil.

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