

## CARPENTER BEES MULTIPLICATION IN ESPÍRITO SANTO STATE, BRAZIL: INITIAL DATA TO RAINY PERIOD

**Adriana Baldi<sup>1\*</sup>; Alex Fabian Rabelo Teixeira<sup>2</sup>; Diego Alves Zonta<sup>1</sup>; Henrique Paye<sup>2</sup>; Marcia Neves Guelber Sales<sup>2</sup>; Favízia Freitas de Oliveira<sup>3</sup>.**

<sup>1</sup>\*Faculdade Pitágoras de Linhares, Espírito Santo; <sup>2</sup>Instituto Capixaba de Pesquisa Assistência Técnica e Extensão Rural – INCAPER; Linhares; Brasil; <sup>3</sup>Universidade Federal da Bahia; Instituto de Biologia; Laboratório de Bionomia, Biogeografia e Sistemática de Insetos (BIOSIS); Salvador; Brasil.

adriana-baldi@hotmail.com

Carpenter bees, *Xylocopa* (*Neoxylocopa*) *frontalis* (Olivier, 1789), are important pollinators of passionfruit. This study aimed to analyze the use of trap-nests made of bamboo (NA) for multiplication and management of *X. (N.) frontalis*, in the passionfruit Region, North of the Espírito Santo State, Brazil. The study was conducted at the INCAPER, Linhares (19 ° 25'03 "S, 40 ° 04'50" W), from 11.2014 to 03.2015 (rainy season). In order to obtain spontaneous nests of *X. (N.) frontalis* were distributed 292 NA. For multiplication of *X. (N.) frontalis*, occupied nests were transferred to a maintenance room. Each bee being born was transferred to a single nest-trap population (NAP), made of bamboo with the open end coupled to a colorless 50 ml plastic pot with two holes: in the pot bottom (top), used to feed with bee honey and the other on the side of the pot (bottom) for the output of material from the cleaning performed by the bee nest. Bees remained arrested for seven days in NAP. After this period, the NAP were taken to the field and open for observation of acceptance or rejection. 12% of NA distributed were occupied spontaneously (n = 35). A number of 37 newly emerged bees (eight males and 29 females) were used in the multiplication, and of these, 54% accepted NAP offered by remaining the same (n = 15). Initially, the creation of *X. (N.) frontalis*, using NA, the most appropriate measurements are: diameter from 16 to 25mm; thickness between 2.5 to 5 mm; length between 15 to 38cm. The acceptance of newly-emerged bees NAP was approximately five times greater than the spontaneous settlement NA. These results suggest the need to continue the work aimed adjustments multiplying methodology carpenter bees, extremely important procedure, especially for regions where there is decline of their populations.

**Keywords:** *Xylocopa* (*Neoxylocopa*) *frontalis*; passion fruit; nest-trap; Atlantic Forest.

**Financial support:** FAPES - 11/2013; Programa Jovens Valores ES; INCAPER.