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IDENTIFICATION OF MALE-PRODUCED SEX PHEROMONE OF *Sennius leptophyllicola* (COLEOPTERA: CHRYSOMELIDAE: BRUCHINAE).

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ABSTRACT: *Sennius leptophyllicola* is a seed predator of *Cassia leptophylla* (Caesalpinioideae: Fabaceae), a Brazilian native species associated with the secondary formation of a Mixed Ombrophilous Forest. The damage caused by this species is due to the lifespan which develops inside the host-plant, that result in a decrease in the number of viable seeds for germination and developing. Thereby, the goal of this work is to study the chemical communication in the seed beetle *S. leptophyllicola*. For this, adults of the seed beetles were collected from mature fruit valves of *C. leptophylla* and separated by sex for the collection of volatiles (headspace). The extracts were analyzed by GC-MS and attractiveness bioassays were performed with 2-6 old virgin insects in a binary choice Y-tube olfactometer using one male or one female equivalent. The GC-MS analysis showed four male-specific compounds with mass spectra fragments that suggest short chain carboxylic acids (Eg. 60, 73 and 87 *m/z*). In addition, bioassays showed a high attraction of females-to-male extract from volatile collection. In contrast, the attraction of males from male or female extract of volatiles was low. The male-specific compounds were derivatized to methyl esters by reaction with diazomethane and compared to standards. As a result, compound **1** was identified as caproic acid (hexanoic acid, RT: 7.060), **2** as caprylic acid (octanoic acid, RT: 10.058), **3** as pelargonic acid (nonanoic acid, RT: 11.500) and **4** as capric acid (decanoic acid, RT: 12.900). During 24h, each male insect emitted a mean amount of 40.82 ng \pm 27.46 (**1**), 20.53 ng \pm 21.28 (**2**), 8.16 ng \pm 12.52 (**3**) and 2.65 ng \pm 3.22 (**4**), in the ratio 15:8:3:1 respectively. With the identification of the compounds, next steps will be to test the attractiveness of females of *S. leptophyllicola* via synthetic compounds.