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**IDENTIFICATION AND FIELD EVALUATION OF *Opsiphanes invirae* Hubner
(LEPIDOPTERA: NYMPHALIDAE) EXTRACT COMPOUNDS.**

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KEY WORDS: DEFOLIATOR CATERPILLAR; *Arecaceae*; HEADSPACE; ELECTROANTENNOGRAPHY; PALM TREE DEFOLIATOR CATERPILLAR; AGGREGATION PHEROMONE; MASS COLLECTION.

ABSTRACT: The species *Opsiphanes invirae* 1818 (Lepidoptera: Nymphalidae), known as the palm tree defoliator caterpillar, is a plague that attacks important plants of the *Arecaceae* family of socioeconomic interest. The use of sex pheromone has been considered an important tactic for the Integrated Pest Management. The objective of this study is to identify the occurrence of sex pheromone in both sexes, as well as to evaluate the attractiveness in field using the proposed aggregation pheromone mixtures. The research was carried out at the Laboratory of Natural Resources Research (LPqRN), Federal University of Alagoas (UFAL). The insects were collected at AGROPALMA farm, in Tailândia, Pará. The analysis of *O. invirae* male and female extracts in GC-FID and GC-MS revealed the presence of a specific compound in the male extracts. The compounds identified in the male extract of *O. invirae* were ocimene, linalool, nerolidol, hexadecene e heptadecene. Electroantennographic (EAG) bioassays were carried out with male and female extracts to investigate biological activity upon *O. invirae* antennae. The stimuli air, hexane, male extract and female extract were used in antennae. The data were submitted to analysis of variance and the means compared by Scott-Knott test at 5% of probability. The results demonstrated that female antennae presented no difference in responses to female extracts and the hexane. However, there was significant responses from female antennae to the male extracts. Regarding the male antennae, there was no difference between the responses to the hexane and the used extracts. The field evaluation with the constituents of the proposed *O. invirae* aggregation pheromone, demonstrated to potentiate the adult capture in the traps, contributing to the management of this pest.