

## XI ENCONTRO BRASILEIRO DE ECOLOGIA QUÍMICA XI BRAZILIAN MEETING ON CHEMICAL ECOLOGY

October 23-26, 2019 Maceió, Brazil

## EVIDENCE OF CHEMICAL COMMUNICATION IN *Telchin licus* (LEPIDOPTERA: CASTNIIDAE)

Merybeth Fernandez Triana<sup>1</sup>; Paulo Henrique Barcellos França<sup>1</sup>; Abel Felipe de Oliveira Queiroz<sup>1</sup>; Jakeline Maria dos Santos<sup>1</sup>; Henrique Fonseca Goulart<sup>2</sup>; Antônio Euzébio Goulart Santana<sup>2</sup>

<sup>1</sup>Chemistry and Biotechnology Institute, Federal University of Alagoas, Maceió, Alagoas, Brazil; <sup>2</sup>Agricultural Science Center, Federal University of Alagoas, Maceió, Alagoas, Brazil

**KEYWORDS:** GIANT SUGARCANE BORER; ANTENNAE SENSILLA; TELESCOPIC OVIPOSITOR; PHEROMONE.

**ABSTRACT:** The giant sugarcane borer *Telchin licus* (Drury, 1773) (Lepidoptera: Castniidae) is a day-flying moth pest of sugarcane, pineapples and bananas. To contribute to the understanding of chemical communication in this species, we report the morphology of its olfactory system and the chemical composition. The ventral surface of the clubbed antennae of *T. licus* has six morphological types of sensilla: sensilla trichoidea, basiconica, chaetica, squamiform, coeloconica, and auricillica. The telescopic ovipositor shows no evidence of a sexual gland, and no female-specific compound was from it. On the other hand, the mid-leg basitarsus of males releases (E,Z)-2,13-octadecadienol and (Z,E)-2,13-octadecadienol, which are electroantennographically active in both sexes. These compounds are known female sex pheromones in the Sesiidae family and male pheromones in the Castniidae family; thus, we suggest that they serve as short-range pheromones in *T. licus*, although further investigations are necessary to elucidate the behavioural activity of these compounds in an ecological context.