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Título artículo: Laboratory Evidence of 2-Isobutyl-3-methoxypyrazine as a Male-Released Aggregative Cue in *Labidostomis lusitanica* (Germar) (Coleoptera: Chrysomelidae)

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ABSTRACT

In spite of its incidence on pistachio trees, the chemical ecology of *Labidostomis lusitanica* (Germar) (Coleoptera: Chrysomelidae) has been neglected so far. In this work, we provide the first evidence of a biologically active male-specific compound that may be promoting field aggregation. Headspace collections through solid-phase microextraction from feral males and females reported the presence of 2-isobutyl-3-methoxypyrazine exclusively in males. Electroantennographic recordings revealed that males and females responded in a dose-dependent manner to increasing stimuli of 2-isobutyl-3-methoxypyrazine, with females overall displaying a higher response than males. In dual-choice tests, both males and females showed a significant preference for the compound in comparison to a pure air stimulus. In light of these results, the possible role of 2-isobutyl-3-methoxypyrazine as an aggregation cue in *L. lusitanica* is discussed.

Key words: *Labidostomis lusitanica*; Chrysomelidae; *Pistacia vera*; 2-isobutyl-3-methoxypyrazine; electroantennography; behavior

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