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| Journal Name: | [**Annual Research & Review in Biology**](https://journalarrb.com/index.php/ARRB) |
| Manuscript Number: | **Ms\_ARRB\_139854** |
| Title of the Manuscript: | **Behavioural response of septempunctata (Linnaeus) to Herbivore-induced plant volatiles** |
| Type of the Article | **Original research article** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here)  AI is not used for comments |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** |  | 1. This study will provide insights into the behavioural responses of *Coccinella septumpunctata* to plant volatiles 2. Understanding plant volatile responses could contribute to minimising pesticides use. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Role of Herbivore-Induced Plant Volatiles in Foraging Strategy of Coccinella septempunctata**  **Yes, the title "Behavioural response of *Coccinella septempunctata* (Linnaeus) to Herbivore-induced plant volatiles" is technically correct and quite accurate on a scientific level, though some aspects do require improvement in terms of clarity, scientific validity, and language.** | I am ok with the title suggested by reviewer  Role of Herbivore-Induced Plant Volatiles in Foraging Strategy of *Coccinella septempunctata*  The title of manuscript change accordingly |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **I modified the abstract like this**  **The study was carried out to investigate the attractiveness of some plant volatiles to adult Coccinella septempunctata beetles using a Y-tube lactometer. The results showed that the majority of the adult beetles preferred stimuli that were made up of methyl salicylate, (-)-trans-caryophyllene, and cis-3-hexenyl acetate. These chemicals elicited a far bigger response compared to the other stimuli that were used. The study shows that these specific plant volatiles are what bring about the attraction of C. septempunctata beetles. The finding contributes to our understanding of ecological processes in predator-prey interactions and ladybird foraging behaviour. Further, the isolated attractive chemicals have applied uses in pest management systems by exploiting natural predator attraction to specific plant volatiles. Overall, this study provides valuable information on the chemical ecology of C. septempunctata and the practical importance of using natural attractants in integrated pest management systems.** | Modification accepted and included in revised manuscript |
| Is the manuscript scientifically, correct? Please write here. |  | Yes |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references are mostly relevant and adequately cited. There are a few citations like "Kumar and Paul, 2023, 2024" which are vague (not included in the reference list or already cited too early). | Yes, Suggestions are incorporated in revised manuscript |
| Is the language/English quality of the article suitable for scholarly communications? | A few grammatical and syntactical errors exist. Examples:” so to they can be only used as a cue"→ must be "so they can be only used as a cue"  "These compounds could be used to enhance effectiveness of parasitoids and predators by manipulating their behaviour." Should clarify if this is a recommendation or a confirmed hypothesis.  Capitalization inconsistencies: e.g., "C. Septempunctata"→ must be "C. septempunctata". Past tense vs. present: Results must be largely in past tense, e.g., "we found," rather than "we find." | Corrections are incorporated in revised manuscript |
| Optional/Generalcomments | scientific Relevance and Originality  The paper presents a topic that is timely and of current interest to chemical ecology and biological control. The subject of C. septempunctata's behavioral response to certain plant volatiles is one with significant implications for the formulation of environmentally friendly management strategies for pests. The cover of both attractant and repellent chemicals reflects a balanced treatment of the beetle's sense responses.  Clarity of Objectives  The purpose of the study—to investigate the behavioral response of C. septempunctata to various herbivore-induced volatiles of plants—is clearly stated and explained. Nothing, however, is done with the function of EAG in the introduction and methods, which does not leave one guessing where the scope of the study is involved.  Experimental Design and Methodology  The method, insect rearing, and olfactometer setup is quite appropriate and scientifically sound. The employment of replicates and analytical software such as ANOVA, t-tests, and chi-square tests strengthens the analysis. Certain parts are not elaborated sufficiently—for example, why specific concentrations were employed, and how were sex differences (if any) addressed.  Data Presentation and Interpretation  The findings are interesting, especially the clear preference of beetles for certain volatiles (e.g., methyl salicylate). The graphs need better captions, and statistical results need to be presented in a more transparent manner (e.g., with confidence limits or full test statistics). Some of the assertions in the discussion section also need more references or clarification (e.g., to limonene, citronellal, and citronellol).  Language and Formatting  The document would be much enhanced by proofreading the language professionally. There are frequent grammatical issues, awkward sentence structure, and inconsistent terminology (e.g., capitalization of genus names, mixing present and past tense). These detract from the scientific quality of the paper.  Literature Support and Citations  The review is generalizable and exhaustive but misses some recent or landmark sources, especially in the use of volatiles in predator attraction. Few of the in-text references are not available in the list of references (e.g., Kumar and Paul, 2023, 2024), which should be corrected.  Conclusions and Implications  The conclusion aligns with the study's findings but could be enhanced by offering more concrete practical recommendations for implementing the findings in integrated pest management (IPM) programs. The discussion needs to be clearer about dividing what was learned in this study from what is promoted in other research. | Clarity of objectives: The EAG data from the introduction and methodology sections has been removed in the revised manuscript, as it has already published in another article.  Experimental Design and Methodology: Since the volatile compounds occurred in trace amounts in nature, serial dilutions of selected compound (1, 0.1, 0.01, 0.001 and 0.0001%) were prepared to evaluate their effectiveness and identify the optimal dose.  Data Presentation and Interpretation: Suggestion incorporated in revised manuscript  Language and Formatting: Suggestion incorporated in revised manuscript  Literature Support and Citations: Suggestion incorporated in revised manuscript  Conclusions and Implications: Literature Support and Citations: Suggestion incorporated in revised manuscript |

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| **PART 2:** | | |
|  | Reviewer’s comment | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* | NO |