

Review Form 3

Journal Name:	South Asian Journal of Research in Microbiology
Manuscript Number:	Ms_SAJRM_126367
Title of the Manuscript:	Contribution of principal component analysis to assessing Culicidae fluctuation in the Souk el Arbaa region, Morocco.
Type of the Article	Original Research Article

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	The study effectively uses PCA to identify important ecological and environmental predictors of mosquito density in Souk el Arbaa, demonstrating a strong link between water quality and mosquito proliferation. This approach could benefit similar studies in other regions where environmental conditions promote mosquito breeding, offering an analytical framework for targeted interventions to reduce mosquito-borne disease risks.	
Is the title of the article suitable? (If not please suggest an alternative title)	Alternative Title: "Environmental Determinants of Mosquito Density: A PCA-Based Study in Souk el Arbaa, Morocco" This alternative emphasizes the ecological aspect of the study (water quality's effect on mosquito density) while still acknowledging the use of PCA as a tool for analysis. This makes the focus on environmental impacts clearer to readers.	
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.	The abstract is informative	
Are subsections and structure of the manuscript appropriate?	The subsections are appropriate	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The manuscript appears scientifically robust and technically sound, as it employs a structured and statistically validated approach to investigate environmental factors affecting mosquito density. Using Principal Component Analysis (PCA) is appropriate for this study because it allows the authors to identify significant correlations between environmental variables (e.g., chloride, organic matter, ammoniacal nitrogen) and mosquito density, helping to elucidate key ecological drivers. The two-year duration of data collection across multiple sites provides a substantial dataset, enhancing the reliability and generalizability of the findings. Additionally, the identification of specific <i>Culex</i> species strengthens the ecological relevance, as it allows for targeted public health recommendations based on species-specific environmental preferences.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are too old. The most recent is 2020. The manuscript could benefit from more recent references to reflect the recent information and knowledge on the subject matter.	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language of the article is mostly suitable for scholarly communication, but some areas could benefit from refinement to improve clarity and flow. For instance, phrases such as "the generally considerable dispersion" and "the prospected breeding sites" may feel awkward or unclear to readers and could be revised for conciseness and precision. Additionally, specifying terms like "elementary and descriptive" when referring to statistical analysis could make the text clearer. Overall, with minor edits for readability and terminology, the language quality would be fully appropriate for scholarly communication.</p>	
<p>Optional/General comments</p>	<p>This manuscript provides valuable insights into the relationship between wastewater quality and mosquito density, addressing an important ecological and public health issue in the Souk el Arbaa region of Morocco. The authors' use of Principal Component Analysis (PCA) is methodologically sound, as it effectively identifies key environmental factors that contribute to mosquito proliferation, making the study both statistically rigorous and relevant to vector control efforts. The identification of five Culex species adds depth, as it enables species-specific analysis of environmental preferences, which is essential for targeted mosquito management.</p> <p>However, some improvements could enhance the manuscript. The abstract could be refined to emphasize the study's objective, methods, and public health implications more clearly. Additionally, minor language adjustments would enhance clarity and ensure the text aligns fully with scholarly standards. Overall, this is a well-designed study with findings that contribute meaningfully to the fields of environmental science and vector control, particularly in urbanizing regions prone to mosquito-borne diseases.</p>	

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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