



Name:	<u>UTTAR PRADESH JOURNAL OF ZOOLOGY</u>
Manuscript Number:	Ms_UPJOZ_3509
Title of the Manuscript:	Understanding the Impact of Heat Stress on Honeybee Populations: Insights into Thermoregulation, Colony Dynamics, and Environmental Interactions.
Type of the Article	Review Article



1: Review Comments

	Reviewer's comment	Author's feedback
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community?</p> <p>(Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable?</p> <p>(If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient</p>	<p>1. The subject in question is important for the scientific community, but about the manuscript in question: I consider that this manuscript would be interesting for the scientific community if it presented a set of important characteristics, such as:</p> <ul style="list-style-type: none"> I - Adequate bibliographic citations on all facts mentioned; II - If you contextualized your arguments well; III - If your figures were better designed. In fact, regarding your first figure, I am concerned about the use of existing photos on the internet without mentioning them (see the links: https://www.biographic.com/water-makes-a-hive-thrive/; https://sellhimvs.life/product_details/46247855.html); IV - If the paragraphs were better prepared, contextualizing the facts. <p>Therefore, despite the subject being interesting, I consider that this manuscript is not important for the scientific community.</p> <p>2. Yes, the title of the manuscript is appropriate.</p> <p>3. No, the summary is missing important information, for example: whether the authors describe a certain species of specific bees, or in general.</p>	



<p>and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>4. Subsections of the manuscript contain repetitive, redundant information and often without adequate citations. And they do not follow a sequence context of information.</p> <p>6. References are missing in several parts of the manuscript. Much information is placed without adequate references being inserted.</p> <p>7. Many points need to be improved. If the editor requests, I can send each point described in specific parts of the manuscript. But in general, here are some suggestions and comments that may be relevant, in order to promote improvements to the submitted manuscript:</p> <p>I - It may be important to include information in the abstract that indicates which bee species the work addresses.</p> <p>II - In the Key words, put: bee populations, as the entire work refers to this. Perhaps instead of saying "foraging behavior", it would be more interesting to say "environmental interactions".</p> <p>III – In the introduction: Insert more references, in addition to reviews, it is important to cite works that demonstrated the facts described. Discuss the impact of possible imbalances in foraging habits for bees. Could this contribute to a bee mortality rate? What would be the rate of a possible reduction in honey production as</p>	
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	<p>a result of this factor? Furthermore, it would be important to explain how changes in climate can affect the physiology of bees and include references to a work in the literature that demonstrated this fact.</p> <p>IV – It would be interesting if the authors could cite examples of alleged facts, such as:</p> <p>“There are many different ways bees deal with heat stress, such as changes in behavior (WHAT KIND OF CHANGES?), foraging tactics (WHAT TACTICS?) and physiology (WHAT HAPPENS TO PHYSIOLOGY? CITE EXAMPLES) (EXPLAIN BETTER EACH OF THESE WAYS TO DEAL WITH HEAT STRESS) (Zhao et al, 2021).</p> <p>V - In topic 3.1 (which could be 3), it would be important to explain how temperature influences the behavior and productivity of bees.</p> <p>VI - About the figures: I consider them very simple, I could address more complex aspects, such as physiological mechanisms involved in the thermoregulation of bees.</p> <p>VII - The paragraphs of the text need to be better prepared, considering the connection between the facts.</p> <p>VIII – In topic 3.2: it is important to mention the</p>	
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	<p>ranges of temperature changes that can affect bees. In fact, this topic is very confusing and lacks a lot of bibliographic reference citations.</p> <p>IX - In topic 4: The information "In this review, the research on the harmful impacts of heat stress on various bee colonies, including stingless bees, bumblebees, and honeybees (especially <i>A. mellifera</i>) is done". It would be more interesting if it were in the abstract. In fact, there are also missing citations in this topic.</p> <p>X - In topic 4.1: It is very confusing, there is a lack of citations of bibliographic references, exemplifications and context.</p> <p>XI - In topic 4.5: The authors inform that "<i>Bees have evolved a cooling system to help them survive in warm climates. other subsequent topics lack bibliographic citations</i>". It would be important to describe this system and provide an adequate bibliographic citation.</p> <p>XII – In topic 4.6: The information is confusing and needs to be clarified. It would be important to consider rewriting this thread.</p> <p>XIII – It is important that the authors consider going deeper into the "Impact of Thermal Stress on Bee Populations", discussing scientific work that sought to evaluate such</p>	
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	impacts.	
Minor REVISION comments	It is important that the authors consider going deeper into the "Impact of Thermal Stress on Bee Populations", discussing scientific work that sought to evaluate such impacts.	
Optional comments		

PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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