## **Review Form 3**

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_130501
Title of the Manuscript:	A warming world and a fading buzz: The impact of climate change on pollinators
Type of the Article	Review Article

## PART 1: Comments

	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
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.	There is immense pressure within the scientific community and beyond to provide data-supported approaches to adapting to, planning for, and improving resilience against the impacts of climate change. We cannot, however, know how to tackle these issues without knowing what these issues are, how severe they are, how interwoven they become, etc. Many studies have outlined the "what" of climate change impacts on pollinators but having a review paper that summarizes these findings and incorporates more up-to-date information would be very beneficial to advances pollinator research and applied scholarship.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes, the title is enticing and explains the purpose, or the "why" and "what" of the article.	
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 introduces the general impacts of climate change on insect pollinators. However, an overview of the literature review is absent. For example, Whipple and Bowser 2023 introduce their literature review with the statements, "Using a systematic review, we found 119 studies that document bumble bee and butterfly responses to climate change." Further, there is an argument here based on the literature review conducted, but there isn't a connection to the actual research being done in this article. The last paragraph of the abstract has the argument. There should be some sort of tie to the work done here to validate those claims (i.e., based on the literature review conducted here, It is essential to focus not only on honey bees and bumblebees but also on). A lot of research went into this manuscript. It should be noted in the abstract. Also, it is missing a "why." Why is this review needed to convey this message? What is the point of the review? I can assume based on what is written, but clearly stating the purpose removes assumptions that reader must make when digesting the manuscript. Also, the abstract reads more like an introduction than the introduction does. The "hooks" in the abstract are also repeated in the introduction.	
Is the manuscript scientifically, correct? Please write here.	The concepts outlined in this manuscript are scientifically correct, yes. But there are some oversights that should be addressed to ensure scientific methodology and considerations are accomplished. The methodology in which this review was conducted in absent from the manuscript. There is also a lack of nuance/more reciprocal interactions. I.e., we see how pollinators impact agriculture, but there is no mention on how agriculture is a huge source of anthropogenic climate change and, in our modern Anthropocene, impacts insect pollinators.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	<ul> <li>The references present are appropriate, but there are more that I think could be of use:</li> <li>Whipple and Bowser 2023, The buzz around biodiversity decline: Detecting pollinator shifts using a systematic review</li> <li>Singh et al 2023, Global trends, knowledge mapping and visualization of current research on climate change and their impact on plant-pollinators interaction</li> <li>Baldock 2020, Opportunities and threats for pollinator conservation in global towns and cities</li> </ul>	

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	<ul> <li>Pinto-Sevallos et al 2025, Effects of Atmospheric Pollutants on Volatile-Mediated Insect Ecosystem Services</li> <li>Ghisbain et al 2021, Expanding insect pollinators in the Anthropocene</li> <li>Marshman et al 2019, Anthropocene Crisis: Climate Change, Pollinators, and Food Security</li> </ul>
Is the language/English quality of the article suitable for scholarly communications?	Yes
Optional/General comments	There is mention of climate impacts. However, I feel this manuscript is lacking some attention to the mechanisms of climate change and uncertainties behind the manifestations of climate change. That could bolster the position of this paper by emphasizing you've considered many aspects of this very complicated picture. I.e., you mention shifts in pollinator phenology but fail to note that regional differences in climate variables (e.g., humidity, precipitation) modulate responses. Further, there is no mention of urban settings and other important intricacies that relate to climate change and pollinator wellbeing. I.e., pollution stressors from emissions that cause climate change, and these difference manifest differently depending on the local socioeconomic statuses. See recommendations for studies above.  Perhaps this could be improved by clearly defining climate change for the purposing of this paper, and why that definition is chosen.

# PART 2:

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

### **Reviewer Details:**

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