Review Form 3

Journal Name:	**Journal of Advances in Biology & Biotechnology**
Manuscript Number:	**Ms_JABB_131050**
Title of the Manuscript:	**Mapping Temperature Tolerance: Parental polymorphism study in contrasting rice genotypes using micro satellite markers**
Type of the Article	

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	Reviewer's comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.**	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.	This manuscript **holds significant value for the scientific community** particularly in the field of rice breeding and genetic research. By identifying polymorphic SSR markers linked to heat tolerance traits this study contributes to the growing body of knowledge on genetic loci associated with **temperature resilience in rice**. The findings have the potential to accelerate the development of heat tolerant rice varieties a critical need in the face of global climate change. Furthermore, the research enhances the precision of molecular breeding approaches, paving the way for more efficient marker-assisted selection and the development of **climate-smart crops ensuring food security** in heat-prone regions.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	Yes	
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.	Your abstract is fairly comprehensive but could benefit from some refinements. Here are my suggestions for **additions and deletions** to improve clarity, completeness, and scientific rigor: • If statistical analysis (e.g., percentage similarity, p-values) was used to confirm the significance of the polymorphism, it should be included. If clustering or grouping of markers based on polymorphism was done, summarizing the findings would add depth. If statistical significance was tested, it should be mentioned. • It would be useful to include specific marker names that showed polymorphism. Identify any **key markers** that showed **the highest polymorphism**, as they could be valuable for marker-assisted selection. Briefly state how these findings can be applied in breeding programs. For example: ➢ Can these markers be used for early selection? ➢ Do they indicate potential candidate genes?	
Is the manuscript scientifically, correct? Please write here.	Your introduction is **scientifically well-structured**, but it has **some errors and areas for improvement** in terms of clarity, consistency, grammar, and completeness.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Yes, Write the scientific name in italics.	
Is the language/English quality of the article suitable for scholarly communications?	Yes, the language quality of your article is generally suitable for scholarly communication.	
<u>Optional/General</u> comments	The introduction mentions **marker-assisted breeding** but does not explicitly state how **the identified polymorphic markers will be used in breeding** (e.g., introgression, QTL mapping). The study focuses on *Nagina 22* and *Manu Ratna*, but their background is not provided. Suggested Addition: *"Nagina 22 is a known heat-tolerant landrace, while Manu Ratna is a heat-sensitive variety widely used in breeding programs."* **Please provide a list of genotypes along with the purity and concentration of their DNA (Table form).**	

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	Reviewer's comment	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)*
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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